

## **Recent Projects**

Ocean Technical Services (OTS), specializes in structural surveys of yachts and commercial vessels and historic vessels. Museum start-ups, preparation of applications with regards to the MARAD/NAVSEA Ship Donation Program and ongoing project management.

We provide additional services such as Project Management, supervision of offshore tows (Trip-In-Tow Surveys & Tow Plans), audio gauging/ultrasonic testing of shell plating, safety surveys, EPA Visitation Agreements and builder's risk surveys of the graving drydocks. I am also a licensed U.S. Coast Guard Master and First Class Pilot of Unlimited Tonnage. A naval architect, marine surveyor and a former NAVSEA/COAST GUARD SUPSHIP are on my staff as subcontractors and are available for additional task requirements.

OTS supervised the structural survey and successful tow of the U.S.S. SALEM (CA-139) from her mothball site in Philadelphia to her new berth in Quincy, Massachusetts in late 1994 (a late fall sailing around Nantucket Shoals). OTS also performed initial museum preparation work upon arrival of the ship in Quincy, Massachusetts. Among the services performed was the establishment of an onboard alarm system, shore power installation, fresh water and steam heating and ship's husbandry until the Museum could get on it's feet and become a viable operating entity. OTS also developed a Mooring Plan and supervised the movement of the M/S SOUTHERN CROSS, a MARAD ready reserve asset berthed at the Quincy Shipyard, into her permanent berth.



**U.S.S. SALEM (CA-139) & U.S.S. DES MOINES (CA-134) at Philadelphia Naval Shipyard Reserve Fleet.**

OTS performed structural surveys in 1996 on the U.S.S. DES MOINES (CA-134) and U.S.S. CHARLES F. ADAMS (DDG-2); these surveys were performed on behalf of the State of Minnesota and the Saginaw Valley Naval Ship Committee, OTS prepared the applications for donations to NAVSEA on their behalf. As part of the application process for the State of Minnesota, OTS organized the acquisition of the hazardous material sampling aboard DES MOINES as part of their Pollution Agreement with the EPA, a big step in their application process. This effort fell apart after a local referendum in Duluth, Minnesota turned down the establishment of the State Park.

OTS conducted a structural hull survey, in late 1997, of the aircraft carrier U.S.S. FORRESTAL (CV-59) on behalf of a Bensalem, PA group that had been attempting to acquire this ship for a museum on the Delaware River.



**U.S.S. FORRESTAL (CV-59) at Coddington Cove, Newport, Rhode Island.**

During the spring and summer of 1998, OTS completed the structural surveys of the three naval memorial vessels at the Buffalo Servicemen's Park (U.S.S. LITTLE ROCK (CLG-4), U.S.S. THE SULLIVANS (DD-537) & U.S.S. CROAKER (SSK-246); OTS had also been contracted to perform designer services as regards repairs to be completed on these vessels prior to the tow to their new berthing sites.



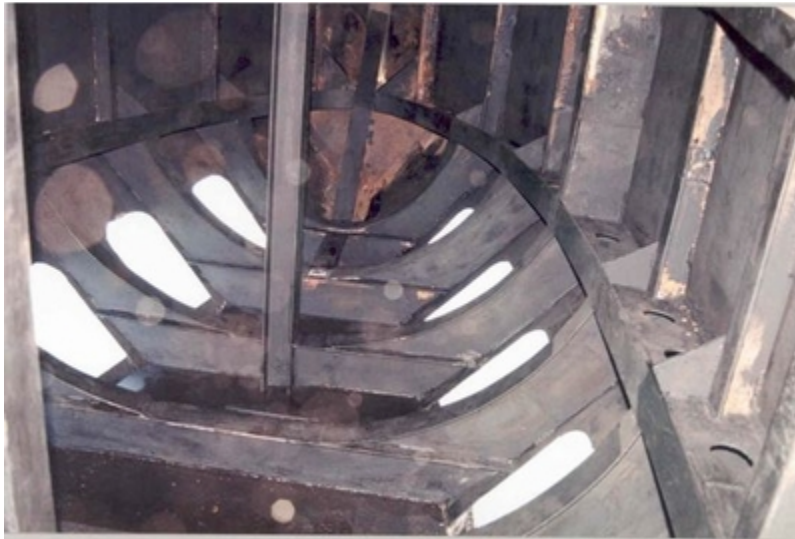
**U.S.S. LITTLE ROCK (CLG-4) at her current berth in Buffalo, New York.**

This project involved preparing and submittals of 'Trip & Tow' surveys and NAVSEA-approved mooring plans for the temporary and permanent berthing of these vessels. Based upon OTS's relationship with the Naval Sea Systems Command (NAVSEA), we were able to secure the declassification of structural hull drawings of the U.S.S. CROAKER (SS-246) at the National Archives. OTS received approval from the U.S. Coast Guard and NAVSEA for the three mooring plans submitted for their review.



**Stem fairing of submarine U.S.S. CROAKER (SSK-246) prior to restoration.**

In January 2000, OTS supervised the repairs to the submarine U.S.S. CROAKER (SSK-246) at her in-water berth on the Buffalo, NY waterfront. OTS rebuilt the bow of the submarine, installed new deck hardware (ten cleats and chocks) and re-ballasted the vessel. The repair of this submarine out of a drydock setting represents the first time a fleet submarine has been repaired in the water since in-theater operations during World War II. OTS completed the rebuilding of the bow of submarine CROAKER in the water and successfully towed her to a temporary berth in Lackawanna, NY.



**Stem fairing of submarine U.S.S. CROAKER (SSK-246) after completion of structural repairs.**



**Installation of towing eye, stern chock and support structure to submarine U.S.S. CROAKER (SSK-246).**

OTS completed removing mud/sediment under the other two vessels and have removed the underwater appendages from the U.S.S. THE SULLIVANS (sonar dome, both props and rudder). OTS joined with Buffalo Industrial Diving Co., of Buffalo, New York in a joint venture to perform repairs to the three vessels at the Naval park. This project was successfully completed in August 2003.



**Starboard propeller, portions of the strut and shafting upon removal from destroyer U.S.S. THE SULLIVANS (DD-537).**

OTS completed, in fall and spring of 1998-1999, the structural surveys and supervised the rigging of tow for the battleship U.S.S. MASSACHUSETTS (BB-59), a National Historic landmark and a sistership to the U.S.S. ALABAMA. We also completed the Trip & Tow survey (required by underwriters for obtaining of the COFR & NAVSEA) and completed the Tow Plan (required by the Coast Guard & NAVSEA) on behalf of the Massachusetts Memorial Committee. The voyage around Nantucket Shoals was uneventful and the battleship arrived on November 7, 1998. The U.S.S. MASSACHUSETTS is the largest historic vessel to go to drydock for repairs to this date.



**U.S.S. MASSACHUSETTS (BB-59) under tow in sea lanes around Nantucket, November 1998.**

OTS completed the ultrasonic testing of 90,000 square feet of the underwater hull of U.S.S. MASSACHUSETTS in Drydock #3 in S. Boston. OTS was contracted as the QC advisor to the U.S.S. MASSACHUSETTS Memorial Committee. We sailed from Drydock #3 for Fall River on 2 March 1999 on time and under budget.



**U.S.S. MASSACHUSETTS within confines of Drydock #3, S. Boston Naval Annex.**

OTS also completed the structural surveys, "Trip & Tow" surveys, Tow Plans and Shipyard Specification Package for the U.S.S. LIONFISH (SS-298), a WW II Balao-class submarine in the spring of 1999, all plans were approved by the U.S. Coast Guard and NAVSEA. OTS supervised the rigging of tow appendage on Saturday 27 February 1999, and were underway (at the end of a tow line) later that day for a successful tow to Boston and returned in May 1999 back to Fall River.

In the spring of 1999, OTS conducted a structural hull survey of the battleship U.S.S. NORTH CAROLINA in Wilmington, NC on behalf of the U.S.S. NORTH CAROLINA Battleship Commission. OTS was also tasked with conducting a systematic UT inspection of the vessel's shell plating concurrently with the structural survey.



**U.S.S. NORTH CAROLINA (BB-55) at time of launch.**

In the fall of 1999, OTS conducted a structural hull survey of the U.S.S. SALEM (CA-139) prior to her move to Drydock #3 in S. Boston. OTS organized and supervised the towing of the vessel and linehandlers for a very successful transit and arrival. OTS conducted the complete UT inspection of the shell plating of this vessel in drydock; we also served the Museum as quality control (QC) inspectors during the entire drydock progression. OTS provided the "Trip & Tow" survey and "Tow Plan for both legs of the project. The ship arrived back at her berth under OTS supervision in February 2000.

In the winter/spring of 2000, concurrently with our ongoing project in Buffalo, OTS performed a preliminary structural survey of the submarine U-505 at the Museum of Science and Industry in Chicago and performed limited UT work on this hull.



**U-505 at her previous shoreside berth at the Museum of Science and Industry in Chicago.**



**Current underground exhibit of U-505**

Also in the Spring of 2000, OTS conducted a structural survey of the destroyer U.S.S. JOSEPH P. KENNEDY (DD-850) at her berth at Battleship Cove in Fall River



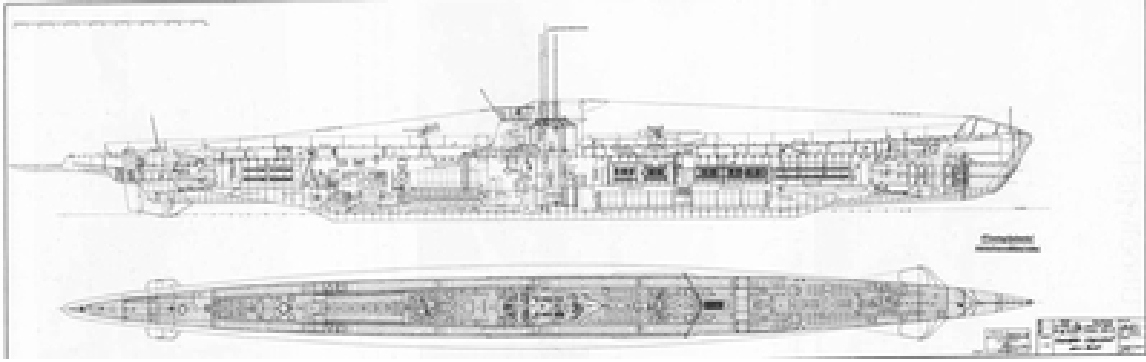
preparatory to towing her to Newport, Rhode Island sound for fitting out for her role in the movie production 'THIRTEEN DAYS'. OTS performed the 'Trip-In-Tow' Surveys and 'Tow Plans' for this exercise. OTS also chartered an ocean-going freighter on behalf of the movie production.

In the summer of 2000, OTS conducted a hull structural survey and prepared the very old wooden, diesel-electric tugboat LUNA, a National Historic Landmark vessel, for a shipyard repair period. OTS supervised and provided oversight on the preparations made to the vessel resulting in her being successfully towed from her berth in Boston to Samples Shipyard in Boothbay, Maine. She arrived without incident.



**Tug 'LUNA' alongside U.S.S. WASP on day of her launch, Bethlehem Steel, Fore River Shipyard.**

During the winter of 2001, OTS performed a detailed structural survey and a complete UT/audio gauging of the submarine U-505's internal pressure hull, bulkheads and external ballast tank system at the Museum of Science & Industry. OTS measured the vessel and prepared a separate 'Machinery Survey' of the vessel's propulsion and steering components for the Museum. OTS also was contracted to repair/rebuild the vessel's watertight dogging hatches.



**Type IX-C U-Boat drawings, of the type of U-505.**

In the spring of 2001, OTS was contracted to perform a structural survey and prepare a Shipyard Specification Package and Tow Plan for the aircraft carrier U.S.S. CABOT, berthed in Brownsville, Texas for a Korean client.



**U.S.S. CABOT (CVE-28) underway off Hunter's Point, June 1945.**

In the summer of 2001, OTS was tasked with conducting a structural survey of the icebreaker U.S.C.G.C. GLACIER (WAGB-4) at her berth in Suisan Bay. OTS also provided a detailed plan for the removal of generators from the former ammunition ship U.S.S. MAUNA KEA to the U.S. Maritime Administration (MARAD); this project involved the removal of side shell plating and decking of this ship for the removal of her

generator and supporting electronic control components. This task was completed later that fall.



**U.S.C.G.C. GLACIER in the raft of ships at Suisan Bay. Ammunition ship U.S.S. MAUNA KEA is to the left.**



**Historic photograph of GLACIER.**

OTS was also tasked (in partnership with Economic Research Associates of San Francisco) with preparing a joint economic analysis/feasibility study to the City of Vallejo, CA on the merits of establishing a historic naval park at the former Mare Island Naval Shipyard. OTS surveyed both the frigate U.S.S. KNOX nuclear submarine U.S.S. DRUM at their berths at the Puget Sound Naval Shipyard in Bremerton, Washington developing the information needed to successfully tow and berth these two vessels. The report generated was accepted unanimously by the City Council of Vallejo in July of 2002.



**U.S.S. KNOX (FF-1052) at Puget Sound Naval Shipyard.**



**U.S.S. DRUM (SSN-677) when an active Sturgeon-Class nuclear attack submarine.**

OTS was also tasked with surveying the pair of fleet tugs U.S.S. QUAPAW (ATF-110) and U.S.S. MOCTOBI (ATF-105) in Port Richmond, California for a commercial client.



**U.S.S. QUAPAW and U.S.S. MOCTOBI at their berths in Port Richmond, CA.**

OTS performed a structural survey of the guided missile cruiser U.S.S. STERETT (CG-31) on behalf of a client in Humboldt Bay, California; we also prepared a five year Economic Analysis for this museum start-up.



**U.S.S. STERETT (CG-31) underway in 1988.**

During the summer of 2002, OTS conducted structural survey aboard the U.S.S. SPHINX (ARL-24), an LST-type repair ship on behalf of the Dunkirk Lighthouse Museum in Dunkirk, New York. They recently obtained Congressional turn-over for the vessel from MARAD. OTS prepared the berthing plans and will be supervising the drydocking and subsequent towing of this vessel to the Lake Erie site. OTS completed an Application to MARAD for the donation of this vessel.



**U.S.S. SPHINX (ARL-24) at her berth within the Reserve Fleet on the James River.**

OTS was tasked with conducting a structural survey and machinery analysis for the salvage tug U.S.S. HOIST (ARS-40) on behalf of a museum group in Toledo, Ohio. OTS prepared a five year Financial Analysis for this group.



**U.S.S. HOIST (ARS-40) at her berth within the Reserve Fleet on the James River.**

OTS completed the application to NAVSEA for the U.S.S. CHARLES F. ADAMS (DDG-2) on behalf of the Saginaw Valley Naval Ship Committee in Bay City, Michigan in 2003.

OTS performed a structural survey of the historic fleet tug U.S.C.G.C. TAMAROA at her berth in Baltimore prior to her tow to Norfolk, Virginia. The vessel had an extensive history dating to her service with the U.S. Navy in the Pacific, her participation in the rescue at the sinking of the Italian ocean liner ANDREA DORIA in the 1950s to her now famous rescues of sailing yachtsmen and helicopter pilots immortalized in the movie 'PERFECT STORM'. OTS completed a detailed Tow Plan & Mooring Plan for this vessel.



**U.S.C.G.C. TAMAROA.**

Mr. Lombardi traveled to St. Petersburg and Kaliningrad in November 2003 at the behest of HNSA and the Department of State on a mission to educate and be educated on museum operations and ship preservation practices in the former Soviet Union.



**Cruiser 'AURORA' at her moorings in St. Petersburg, Russia.**

The fall of 2003 saw OTS, on behalf of the National Park Service, conducting a structural analysis of the steamship NOBSKA currently berthed at Constitution Drydock at the National Park, Charlestown Navy Yard in Boston.



**Steamship NOBSKA in the Constitution Drydock at the Charlestown Navy Yard, Boston.**



In early 2004, OTS conducted a hull structural survey of the destroyer U.S.S. FORREST SHERMAN (DD-931) at the Philadelphia naval Shipyard. OTS also prepared a Tow Plan and a Mooring Plan for this vessel.



**U.S.S. FORREST SHERMAN (DD-931) at Philadelphia INACTSHIPS.**

OTS was also tasked (in partnership with Economic Research Associates of San Francisco) with preparing a joint economic analysis/feasibility study to the City of Vallejo, CA on the merits of establishing a historic naval park at the former Mare Island Naval Shipyard. OTS surveyed both the frigate U.S.S. KNOX and the nuclear submarine U.S.S. DRUM at their berths at the Puget Sound Naval Shipyard in Bremerton, Washington developing the information needed to successfully tow and berth these two vessels. The Mare Island Shipyard was also surveyed which included both graving docks and launching ways. The report generated was accepted unanimously by the City Council of Vallejo in July of 2002.

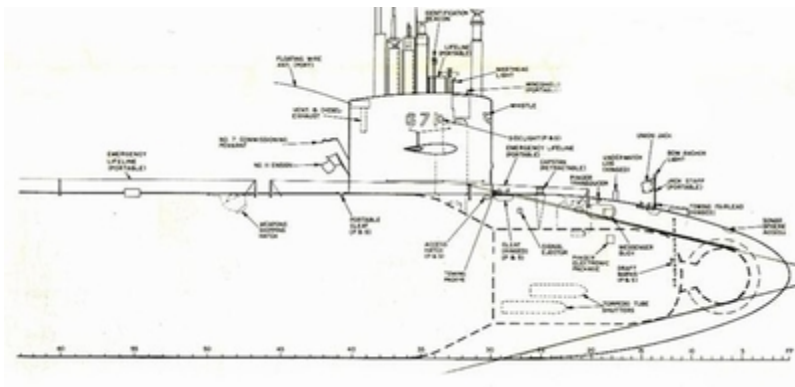


**Mare Island Naval Shipyard, Vallejo, California.**

In 2004, OTS worked with the National Submarine Science Center of Newport, Kentucky as the Project Manager in obtaining the nuclear powered submarine U.S.S. NARWHAL (SSN-671) with a successful Congressional bill passed and signed by President Bush in October 2003. This marks the first time a nuclear powered submarine will be donated to a private, non-profit group. The submarine is currently berthed at the Puget Sound Naval Shipyard awaiting the removal of her reactor.



OTS completed, in September 2004, a structural analysis of the nuclear submarine U.S.S. NARWHAL and worked with the client and the U.S. Navy Puget Sound Shipyard in preparing a Shipyard Specification Package on conversion of the submarine. Concurrently, OTS completed the preparation of a detailed, draft Barge Design/Shipyard Specification Package outlining the essentials needed in designing and constructing a barge that will ultimately house the submarine on it's long tow from Puget Sound thence to the Panama Canal ending with a transit of the Mississippi and Ohio Rivers.



OTS completed the structural survey and a Shipyard Specification Package of the former U.S. Coast Guard cutter MOHAWK (WPG-78), built in 1934, for her new owners. OTS completed a Trip – In – Tow survey and Tow Plan for this vessel for her tow to Miami.



**U.S.C.G.C. MOHAWK (WPG-78) at her berth at Mariner's Harbor, Staten Island.**

TS served as a naval technical advisor on the set of the movie production 'PROUDLY WE SERVED' and 'THIRTEEN DAYS'.

OTS completed, in 2005, a structural survey of the guided missile destroyer U.S.S. BARNEY (DDG-6) at the Philadelphia Naval Shipyard on behalf of a museum group seeking this ship as memorial.



**Foredeck of U.S.S. BARNEY (DDG-6) at the Philadelphia Naval Shipyard.**

In 2005, OTS prepared an application to the U.S. Maritime Administration (MARAD) on behalf of the Dunkirk Lighthouse & Veteran's Memorial Park, Dunkirk, New York for the acquisition of the U.S.S. SPHINX (ARL-24).



**U.S.S. SPHINX (ARL-24) in the Reserve Fleet, James River.**

OTS inspected/surveyed and conducted underway sea trials on the destroyer U.S.S. CASSIN YOUNG on behalf of the National Park Service at the Charlestown Naval Shipyard in Boston in the Fall of 2005.



**U.S.S. CASSIN YOUNG at Charlestown Navy yard, Boston National Historic Park.**

The winter of 2005 found OTS named as the firm to prepare an application to the U.S. Navy for the donation of the heavy cruiser U.S.S. DES MOINES to the Milwaukee Historic Ship Committee.



**U.S.S. DES MOINES.**

OTS conducted fleet surveys of 24 fast ferry vessels on behalf of Boston Harbor Cruises/Modern Continental's financial institution in the winter/spring of 2005



**M/V NORA VITTORIA 42M high speed catamaran owned by Boston Harbor Cruises.**



**Dredge S. COSMOLETTI, Cashman Equipment Co. mechanical dredge.**

OTS inspected 40+ tugs/barges/dredges owned by Stirling/Cashmen Equipment throughout the eastern seaboard in the spring and early summer of 2005

OTS surveyed and conducted underway sea trials on the destroyer U.S.S. CASSIN YOUNG on behalf of the National Park Service at the Charlestown Naval Shipyard in Boston.



**Tug 'LUBBIG E', Spearin, Preston & Burrows offshore tug.**

OTS inspected the entire tug/barge/dredge fleet of Spearin, Preston and Burrows of Staten Island, New York comprising 50+ vessels during the summer of 2005 for C.V. STARR Insurance, Boston.

OTS surveyed the entire Circle Line Ferry Fleet of Manhattan summer of 2005 and later conducted a complete inventory of all fleet spares at their Brooklyn Navy yard site.



**Circle Line ferry 'MISS NEW YORK'.**

OTS surveyed (winter of 2005/6) the mega yacht GIANT 1 in Ushuaia, Argentina.



**M/Y GIANT I in Magellan Straits.**

OTS surveyed the whaleback motor tanker METEOR at her berth at Superior, Wisconsin spring 2006.





**S.S. METEOR at her berth at Barker's Island, Superior, Wisconsin**

OTS completed a shipyard assessment of Detyens Shipyard (formerly the Charleston Naval Shipyard) in North Charleston, SC spring/summer 2006.



**Drydock #5, Detyens Shipyard, Charleston, SC.**

OTS completed the structural survey of the floating drydock, AFDL-47, a U.S. Navy floating drydock, at Goose Creek Naval Weapons Station, in 2006 for Detyens Shipyard of N. Charleston, SC.



**AFDL-47 in drydock, July 2006 at Detyens Shipyard.**

**OTS completed the structural survey of the battleship U.S.S. MISSOURI (BB-63) at her berth at Ford Island, Pearl Harbor, winter 2006 and winter 2007.**



**U.S.S. MISSOURI at her berth at Ford Island.**

OTS performed a structural survey aboard battleship U.S.S. WISCONSIN (BB-64) on behalf of the City of Norfolk, VA and prepared portions of the Application to the Naval Sea Systems Command, summer 2006 and later completed an Historic Fabric Assessment of the vessel in late 2008.



**U.S.S. WISCONSIN (BB-64) at her berth, Nauticus Museum, Norfolk, Virginia.**

OTS performed a structural hull survey of the submarine U.S.S. CLAMAGORE at Patriots Point Naval Park, Mount Pleasant, SC in spring 2008. OTS also prepared a Shipyard Specification Package for the owners.



**U.S.S. CLAMAGORE (SS - 343) at her berth at Patriots Point Naval Park, Mt Pleasant, SC.**

OTS performed a structural survey aboard the four masted barquentine FALLS OF CLYDE, berthed in Honolulu, Hawaii in the spring of 2007. OTS, as Project Manager, was later tasked by the Bishop Museum with organizing the disposal of this vessel to any qualified party that could materially and financially restore the ship and move the vessel away from the Hawaii Maritime Center at the Aloha Tower complex in downtown Honolulu; when that proved impractical, OTS was tasked with preparing for the at – sea disposal of this historic vessel and secured EPA approval for the preparation of the vessel for SINKEX. The vessel’s unsafe rigging, yards and spars were manually lowered without incident and the remediation of the vessel was completed summer/fall of 2008. The vessel, in exceptionally poor material and structural condition, was remediated to EPA specifications with additional measures made to ensure structural rigidity for the anticipated tow. The vessel was saved at the last minute by a poorly funded, but well intentioned, group in Hawaii that wants to preserve this fine vessel.





**FALLS OF CLYDE at Copenhagen, 1920.**

OTS performed a structural hull survey aboard destroyer U.S.S. CASSIN YOUNG at Boston National Historic Park and prepared a Shipyard Specification Package for the repair of the destroyer U.S.S. CASSIN YOUNG on behalf of the National Park Service, Fall 2008/Spring 2009.



**Starboard side of armored citadel, U.S.S. NORTH CAROLINA (BB - 55).**



**U.S.S. NORTH CAROLINA at sunset.**

OTS performed an onboard assessment of conditions of the forward starboard shell plating aboard battleship U.S.S. NORTH CAROLINA in Fall 2008 and prepared a Shipyard Specification Package for the Owners. OTS subsequently has performed a structural survey of the ship at her berth in Wilmington, North Carolina, Spring 2009.

OTS recently completed a structural survey of the destroyer U.S.S. LAFFEY at Patriots Point Naval Park, Mount Pleasant, SC in early December 2008. OTS prepared a Shipyard Specification Package for the owners.

OTS was named Project Manager for the restoration of this historic vessel with a successful tow of the vessel to Detyens Shipyard in N. Charleston, SC. The vessel was in a very unsafe structural condition missing much of her keel and structural scantlings in her four machinery spaces due to degradation. OTS supervised the support of 320 tons of machinery in her four machinery spaces prior to the tow to shipyard. On-going repairs include the repair of five transverse bulkheads and all longitudinal and transverse frames in her four machinery spaces. The shell plating from bow to stern from just above the waterline down to her keel will be replaced with new 3/8" steel plate. The vessel is to be towed to a temporary berth in early January 2010.



**U.S.S. LAFHEY departs Patriots Point for drydock repairs, Aug. 2009.**



**U.S.S. LAFHEY under tow up the Cooper River, Charleston, SC, to drydock.**



**U.S.S. LAFLEY in floating drydock at Detyens Shipyard, N. Charleston, Aug. 2009.**

OTS surveyed and subsequently towed the National Historic Landmark cutter INGHAM from her berth at Patriots Point, Mt. Pleasant, SC to a temporary berth in N. Charleston, SC prior to moving her to her final berth at Key West, Florida. OTS developed a Shipyard Specification Package, three Tow Plans for this vessel and was Project Manager for the shipyard drydocking of this vessel in Fall 2009..



**U.S.C.G.C. INGHAM, ready for launch at Detyens Shipyard. October 2009.**





**U.S.C.G.C. INGHAM under tow for Key West, November 2009.**



**S/V JOSEPH CONRAD at her berth at Mystic Seaport in 2008.**

OTS completed a comprehensive hull survey and an inspection of the spars/mast/yards of the historic sailing ship JOSEPH CONRAD at Mystic Seaport. OTS developed a repair specification for the temporary repairs required by this historic ship



**JOSEPH CONRAD hauled out at the DuPont Shipyard at Mystic Seaport.**

OTS prepared a feasibility study for the possible berthing of battleship U.S.S. IOWA for the Port of Los Angeles.



**U.S.S. IOWA at the Suisan Bay Inactships Facility, San Francisco Bay.**

OTS was Project Manager for the National Park Service for the restoration of the Fletcher Class destroyer U.S.S. CASSIN YOUNG, at Drydock #1, Charlestown Navy Yard, Boston.



**Welders installing new shell plating under the counter, U.S.S. CASSIN YOUNG.**



**U.S.S. CASSIN YOUNG in Drydock #1, Boston National Historic Park, Charlestown, MA.**

OTS completed an assignment with the battleship U.S.S. NORTH CAROLINA (BB-55) in Wilmington, N.C. OTS acted as Designer to implement the use of a floating cofferdam to repair the starboard shell plating of the vessel while at her habitual berth; thereby saving time and funding for either towing the ship to drydock or to build an encompassing cofferdam around the vessel to allow hull work to proceed; a daunting economic hurdle.



**John Walker monitoring plasma cutter within portable cofferdam alongside hull, cutting away deteriorated underwater plating of battleship U.S.S. NORTH CAROLINA.**



**Aerial view of starboard bow of battleship U.S.S. NORTH CAROLINA, showing mobilized repairs underway.**

Repairs to the starboard bow were successfully completed in November 2011. The costs savings realized by this surveyor were in excess of \$ 1.5 Mil. due to value engineering in not dredging the berth.

OTS conducted a hull structural survey of the battleship U.S.S. TEXAS (BB-35) at the San Jacinto State Park, La Porte, Texas on behalf of the Texas Parks & Wildlife Department (TPWD, January 2011. OTS completed, in April 2012, interior tank inspections and prepared a cost analysis and designed the Shipyard Repair

Specification for TPWD. These repairs, for the 1<sup>st</sup> phase, are nearing completion with OTS as QA/QC Project Inspector.



**Battleship U.S.S. TEXAS (BB-35) at her berth at the San Jacinto State Park in La Porte, Texas.**



**Track cutting of 3/8" plating for new framing aboard battleship U.S.S. TEXAS.**

OTS conducted a hull structural survey and Tow Plan for the U.S.C.G.C, MOHAWK in Key West prior to her successful tow to Ft. Myers Beach, Florida to prepare her for ocean reefing.



**U.S.C.G.C. MOHAWK under tow, May 2012, for Fort Myers Beach, Florida.**

OTS has been engaged by the owners of the aircraft carrier U.S.S. YORKTOWN (spring 2014) to conduct a structural survey of the ship, prioritizing repairs and assigning budgetary figures for the repairs.



**Starboard quarter view of USS Hopewell (DD-681), DESDIV 152, alongside  
USS Yorktown (CVA-10) during refueling ops, 1957 Far East Cruise.**

OTS prepares applications to the U.S. Naval Sea Systems Command (NAVSEA) and the U.S. Maritime Administration (MARAD) on behalf of non-profit 501 C3 museums and municipalities that desire to acquire ex – Navy ships for display purposes.

OTS performs appraisals for estate and legal clients on vessels, waterfront commercial yacht yards and shipyards.

OTS regularly performs surveys of yachts, passenger and gaming vessels, ferries, tugboats, barges, dump scows, jack-up rigs, freighters, and product tankers for their clients and for a myriad of marine underwriters and financial institutions.

OTS performs ‘On-Hire’ surveys, Drydock/Floating Drydock Inspections, ‘Condition & Valuation’ Surveys of yachts and commercial vessels, Sea Trials and Donation Surveys.

OTS performs ultrasonic inspection of steel and aluminum vessels.

OTS prepares Mooring Plans, Tow Plans and ‘Trip-in-Tow’ Surveys.

OTS is experienced and is prepared to act as project management within a shipyard and yacht yard setting.

OTS is qualified in Federal Maritime Court as a ‘Marine Surveyor’.

Specialized equipment/software utilized by OTS for specific task completion:

- a.) OCE PLOTWAVE 300 scanner/plotter (large format),
- b.) GE DMS GO UT/Paint Thickness/ Weldment Flaw Detection machine,
- c.) ISHOT SONY Digital underwater camera,
- d.) AUTOCAD & OPTIMOOR Mooring software,
- e.) LEICA digital camera suite.
- f.) SNAP-ON Multimeter & Miller galvanic probes for salt & brackish water,
- g.) Dyer 29 bassboat with custom TRIAD trailer & 9' Boston Whaler.

**Joseph Lombardi is Ship Preservation Chairman of the Historic Naval Ships Association (HNSA).**

**The above is in addition to our core book of business as yacht & commercial vessel surveyors.**

**Ocean Technical Services, LLC** maintains memberships and associated memberships within the Society of Accredited Marine Surveyors (SAMS), Historic Naval Ships Association (HNSA), U.S. Naval Institute (USNI), Society of Naval Architect & Marine Engineers (SNAME), the American Welding Society (AWS), the National Society for Testing & Materials (NSTM) and the American Boat and Yacht Council (ABYC).

**How can OTS assist your project?**



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