

# **A SUCCESSFUL COOPERATION SINCE 1993**





It all began in 1993 when the United States Department Of Defense – Department Of The Navy and Viktor Lenac Shipyard signed the Master Agreement For Repair And Alteration Of Vessels Of The 6th Fleet. The cooperation started with the recovery operation of the fallen F-16 fighter parts from the Adriatic Sea. The fall of the plane was caused by a mechanical defect. By joint intervention of the US Air Force, US & Croatian divers, Croatian Military Forces and skilled team from Viktor Lenac, the parts were recovered from the sea and transported to the shipyard and further to the US Air base in Aviano. The whole job was performed in less than 24 hrs to great satisfaction of representatives of the US Air Force and US Navy.



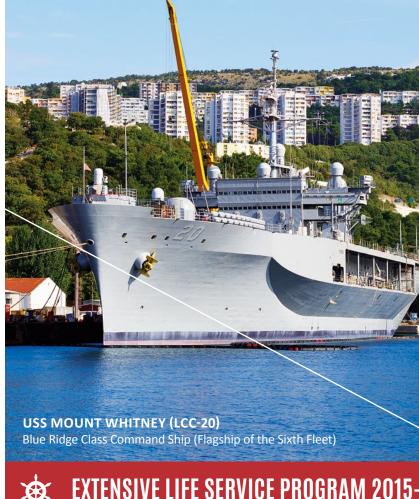
# EMERGENCY REPAIRS IN RIJEKA AND SURROUNDINGS IN THE PAST

- USS AUSTIN (LPD-4) Nov/2000
  Austin-class amphibious transport dock ship
- USS SAIPAN (LHA-2) Nov/2000
  Tarawa-class amphibious assault ship
- USS NASHVILLE (LPD-13) Apr/2001
  Austin-class amphibious transport dock ship
- USS KEARSARGE (LHD-3) Aug/2001
  Wasp-class amphibious assault ship
- USS CARTER HALL (LSD-50) May/2003
  Harpers Ferry-class dock landing ship
- USS WHIDBEY ISLAND (LSD-41) Mar/2004
  Whidbey Island-class dock landing ship









## USS MOUNT WHITNEY (LCC-20) - EXTENSIVE SHIP REPA

Machining of stern tube, stern tube shaft, propeller shaft, rudder stock housing and rudder stock. Optical and laser alignment. Inspection of low pressure steam turbine with rotor replacement. Turbo generator inspection. Shell plating huck bolt replacement.

**MAINTAINING OF EXISTING SYSTEMS & EQUIPMENT** 

- Docking and Class surveys.
- UHP water blasting of hull, main & helo deck, non-skid application on main & helo deck, ballast tanks blasting with steel shots and full coating application.
- Pumping out and storing of 3,000 tons of fuel, cleaning and gas freeing of all fuel, oily water, sludge and sewage tanks.
- Removal and disposal of 21 tons of asbestos insulation.
- Accommodation works (Terrazzo & PRC), renovation of galleys, ventilation, insulation, etc.
- Boiler works, cleaning of all ventilation ducts.
- Incline test.

## FABRICATION AND INSTALLATION OF NEW SYSTEMS & EQUIPMENT

Modification of existing spaces into new auxiliary engine room including installation of 3 new generators, switchboards and control room. Installation of new systems: UPS, Vessel Control System, replacement of all existing switchboards with new ones, 2 electrical boilers.

- 220 tons of steel works, 52 km of cables installed.
- 3D modelling for all new spaces and systems. All pipes fabricated from CuNiFeR and stainless steel.





#### **NEW SYSTEM BENEFITS**

- The newly installed Assured Power System has revitalized all ship's electrical platforms. It provides reliable power to vital electrical units, in case of sudden power loss or a power surge. The system is a perfect fit for the Mount Whitney, because of her position as a Command, Control, Communications, Computer, and Intelligence (C4I) vessel.
- Assured power allows ship's electronic equipment to operate more safely and efficiently with a lowered margin of risk than in the past.
- With the installation of a Reverse Osmosis (RO) plant, the ship now can remove salt and sediment gathered from ocean water.
- The water is pumped through the ship's piping system, and is utilized in the production of creating fresh flushing water for the ship and her crew.
- This allows the flagship to maintain the integrity of its piping system, by greatly reducing the risk of rusting and debris from the oxidation of metal pipes through contact with salt water.
- Project carried out and followed according to US Navy standards and requirements.



**USS MOUNT WHITNEY (LCC-20)** EXTENSIVE SHIP REPAIR, DOCKING AND UPGRADING DEC

Habitability refurbishment with installation of new Millennium heads.

Installed NMT, CBSP, DCGS, ADNS, SL32 systems and antennas.

Installed CANES C5I System with 360,000 feet of new cables commissioned 2 months before schedule.

- Refurbishment and upgrading of existing systems and ship components.
- Removed and renewed over 340 tons of wasted steel.
- Fuel was stored in the Fuel Farm storage facility (1,000,000 gallons).
- Dry abrasive blasting to SSPC SP-10 of all water ballast, potable water, feed water, JP-5 and CHT tanks with full coating application.
- Preservation of all ships areas and compartments.
- Flight Deck non-skid replacement.
- Flight Deck tie down assembly renewal and testing acc. to AVCERT requirements.
- HVAC ventilation duct cleaning with cryogenic/dry ice technology i.a.w. North America Duct Cleaning Association.
- Extensive stern tube, propeller shaft and rudder repairs.
- Stern tube assembly steel replacement with onsite machining of new stern tube and stern tube bearings.
- Refurbishment of various boiler components: boiler registers, soot blowers, brick work repairs, sliding feet, pipes and steel casing.
- Overhauled ship's main circ pump and pumps of various other systems.
- Vessel Incline Survey. Upgrading Vessel Control System (VCS).
- Installed (1) new RHIB boat and davit.
- Installed new water heating system.



## DOCKING REPAIRS

**USS MOUNT WHITNEY (LCC-20)** - EXTENSIVE DOCKING AND CLASS SURVEYS AUTUMN 2011

Surveys of propeller, tailshaft, intermediate shaft and rudder. **Complete Ventilation system** cryogenic and brush cleaning.

#### Steam boilers uptakes and Exhaust gas boiler tubes sections renewal.

- Docking surveys and repairs of underwater bottom area.
- Entire hull anti-corrosion treatment.
- Anchors, chains and chain lockers cleaning and repairs of windlasses and mooring winches.
- Steel renewal i.w.o. A/C room, lift pit and mid part of PS/SB shell plating - 60 tons.
- Switchboards and Load center panels cleaning, inspection and connections re-tightening.
- Main condenser cleaning and partial renewal of tubing.
- Replacement of huck bolts of PS/SB shell plating.
- Pumping out of fuel oil from all FO tanks, opening and cleaning of all FO, ballast and potable water tanks and void spaces.
- Renewal of Gaylord hoods for ventilation i.w.o. galleys and bakery rooms.
- Lagging renewals i.w.o. ventilation ducts, ER and stores.
- Electrical/illumination repairs in different accommodation areas.
- Repairs of watertight entrance doors and inside doors, and repairs in corridors.
- Pipes renewal in ER and FO tanks.
- Grit blasting and painting of fresh & potable water tanks.
- Cleaning and repairs i.w.o. provision stores.
- Tank manhole doors renewal of bolts and gaskets, repairs of covers and supports.



## DOCKING REPAIRS

### **USNS CHOCTAW COUNTY (JHVS-2)** DEC 2015

- Repair of forepeak aluminium structure.
- Ride Control System maintenance works.





Shipyard possess certifications for low heat pulse aluminium welding and testing with Ultrasonic Impact Technology.



# VIKTOR LENAC'S RIDING SQUADS IN NAVIGATION AT SEAS/PORTS

### **USS MOUNT WHITNEY (LCC-20)**

- Port Repair in Gaeta, Italy (Feb 2016)
- Voyage repair during navigation from Denmark to France and Italy (June/Aug 2016)

#### **USNS LEROY GRUMMAN (T-AO-195)**

Henry J. Kaiser - class fleet replenishment oiler

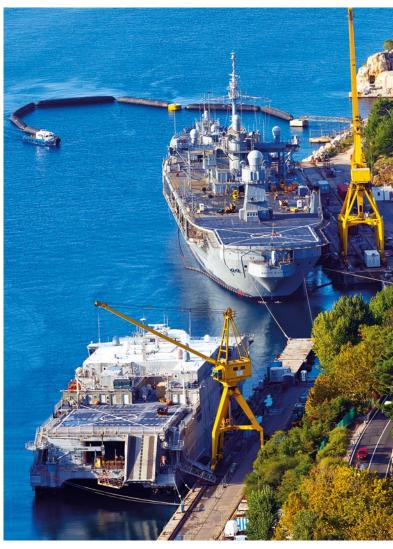
- Port repair in Augusta, Italy (Dec 2016)





## **VOYAGE REPAIRS**

**USS MOUNT WHITNEY (LCC-20)** MAR/APR 2016 **USNS TRENTON (T-EPF 5)** SEPT/OCT 2017







Delivering Top Quality, In a Safe Way, On Time