



**DEPARTMENT OF THE NAVY**  
USS SALVOR (ARS 52)  
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From: Commanding Officer, USS SALVOR (ARS 52)  
To: Director of Naval History (N09BH)

Subj: 2003 COMMAND HISTORY (OPNAV REPORT 5750-1)

Ref: (a) OPNAVINST 5750.12G

Encl: (1) Command Composition and Organization  
(2) Chronology  
(3) Narrative

1. In accordance with reference (a), enclosures (1) through (4) are forwarded.

  
M. A. MCCARTNEY

## Command Composition and Organization

1. Command Mission. The mission of USS SALVOR is fourfold.

a. Salvage of Stranded Vessels. Disabled vessels require various support services. SALVOR carries portable cutting and welding equipment, power generators, dewatering salvage pumps, a machine shop, and necessary materials to effect temporary hull repairs. Additionally, she is equipped with six legs of beach gear, which can be rigged to exert over 300 tons of retracting force to the stranded vessel.

b. Rescue and Assistance. For exterior fire fighting, SALVOR is equipped with two manual permanent fire monitors on the signal bridge and a manual portable monitor on the forecastle. These monitors provide fire fighting water or aqueous film forming foam at the rate of 1,000 gallons per minute to extinguish topside fires on a distressed ship. She is also rigged with two off-ship fire fighting manifolds, which supply firefighting water to aid in firefighting efforts to the interior of the distressed ship. SALVOR is designed for open-ocean towing. The power from her four main propulsion diesel engines and the towing machine is sufficient to tow a *Nimitz* class aircraft carrier at a speed of 3-5 knots.

c. Recovery of Submerged Objects. SALVOR is equipped with a 7.5 ton capacity boom forward and a 40 ton capacity boom aft. Utilizing the two main bow rollers or the two stern rollers in conjunction with deck machinery, purchase tackle or hydraulic pullers, a dynamic 150 ton lift can be achieved. She can perform a dynamic lift of 300 tons using the main bow rollers and stern rollers in unison. SALVOR also possesses two auxiliary bow rollers, which when used simultaneously, can support a 75 ton lift.

d. Manned Diving Operations. The MK21 MOD 1 diving system provides SALVOR divers the organic capacity of diving to normal operational depths of 190 feet on surface supplied air. When combined with the MK III Fly-Away Mixed Gas System (FMGS), the diving capacity is increased to a maximum depth of 300 feet. The MK20 MOD 0 diving system allows surface supplied diving to a depth of 60 feet with lighter equipment. The divers descend to depth on a diving stage lowered by one of two powered davits. The diving locker is equipped with a double lock hyperbaric chamber for recompression following a deep dive or in the treatment of diving accidents. For shallow underwater inspections, searches and other tasks which require greater

mobility than tethered diving, SALVOR maintains a complete complement of self contained underwater breathing apparatus (SCUBA) equipment on board with the ability to use Nitrox in order to extend dive time.

## 2. Organizational Structure

- a. Immediate Senior in Command:  
Commander, Naval Surface Group Middle Pacific  
RDML McCullough, USN
- b. Commanding Officer  
LCDR Michael McCartney, USN
- c. Permanent Duty Station:  
Pearl Harbor, Hawaii
- d. No aircraft assigned.

## Chronology

### **January 2003**

01-12: In port Pearl Harbor post holiday upkeep

13-26: -Underway enroute Guam

-Awarded 2002 Battle-E

27-30: In port Guam

28-29: SMA S2 Food Service Inspection

31: Underway enroute Ulithi Atoll

### **February 2003**

01-25: Defueling of USS MISSISSINEWA (AO-59)

- 02 February 2003: Ulithi Atoll Local Reception  
onboard USS SALVOR

- 12 February 2003: USS MISSISSINEWA Dedication  
Ceremony onboard USS SALVOR

- 13 February 2003: USS MISSISSINEWA Memorial  
Ceremony on Mang-Jang Island

26-27: Underway enroute Guam

28: Demobilization In port Guam

### **March 2003**

01-03: Demobilization In port Guam

04-17: Underway enroute Pearl Harbor

18-31: In Port Pearl Harbor post MISSISSINEWA deployment upkeep

### **April 2003**

01-30: In port Pearl Harbor post MISSISSINEWA deployment upkeep

- 28-30: SYSCAL VISIT and TOW CERT

**May 2003**

- 01-31: In port Pearl Harbor post MISSISSINEWA deployment upkeep
- 01-02: TOW CERT
  - 01-05: SYSCAL VISIT
  - 12-30: FMAV

**June 2003**

- 01-29: In port Pearl Harbor Pre-Tow Operations Preparations
- 09: CMS Inspection
  - 14: Change of Command Rehearsal
  - 17: Change of Command from LCDR J. A. Carter to LCDR M. A. McCartney
  - 26: U/W Hawaii Operation Area for Helo Crash Drills
- 30: U/W Hawaii Operation Area for Replenishment at Sea Drills with USNS Tippicanoe

**July 2003**

- 01-06: Master Diver Evaluation Preparations
- 07-17: Underway Oahu Reef Runway for Master Diver Evaluations
- 18-24: In port Pearl Harbor Pre-Tow Operations Upkeep
- 25-31: Underway enroute San Diego, California

**August 2003**

- 01-04: Underway enroute San Diego, California
- 05-07: In port San Diego California for tow preps.
- 08-18: Underway enroute Bremerton, Washington with YDT-253 Barge Crane in tow.
- 18: Underway enroute Seattle, Washington

**August 2003 (cont'd)**

- 19-21: In port Seattle, Washington for Port Visit
- 22: - Underway enroute Victoria, British Columbia  
- AVCERT
- 23-25: In port Victoria, British Columbia for Port Visit
- 26-29: Underway enroute San Francisco, California
- 30-31: In port San Francisco, California for tow preps

**September 2003**

- 01-02: In port San Francisco, California for tow preps
- 03-15: Underway enroute Pearl Harbor, Hawaii with Ex USS  
John Young in tow.
- 15: Ammo Offload
- 16-28: In port Pearl Harbor Post Tow Deployment Upkeep
- 29-30: In port Pearl Harbor Planned Maintenance Availability

**October 2003**

- 01-31: In port Pearl Harbor Planned Maintenance Availability
- Electric Heater install
- Anti-Terrorism / Force Protection Training (Phase I)

**November 2003**

- 01-30: -In port Pearl Harbor Planned Maintenance Availability
- Communications ADNS and DTS install

**December 2003**

- 01-03: In port Pearl Harbor Planned Maintenance Availability
- 01-12: CART II Preps

**December 2003 (cont'd)**

04: In port Pearl Harbor Fast Cruise

05: Underway Sea Trials and Ammo On Load

06-12: Anti-Terrorism / Force Protection Training(Phase II)

13-31: In port Pearl Harbor Holiday Upkeep

31: Awarded COMPACFLT Retention Excellence Award

## Narrative

### 1. **January 13 - March 17:** De-fueling of Public Vessel EX-Mississinewa.

a. **Objectives:** Remove fuel oil remaining in the submerged oil tanker AO-59 Ex-USS Mississinewa, and secure the ship's hull to prevent further penetration and leaks. The mission had great importance as oil spills threatened the stability of pristine reef structures and fishing grounds located in the waters of the Ulithi Atoll. These waters represent the sum of resources available for local population, and they depend heavily on them for day to day sustenance.

b. **Results:** 2 million gallons of fuel oil successfully recovered and transferred to an oil barge for proper disposal. SALVOR's expert dive and salvage teams conducted over 200 dives accumulating nearly 11 thousand minutes of bottom time to a maximum depth of 130 feet of sea water. These efforts ensured zero environmental impact and resulted in a 100% incident free and successful operation.

#### c. **Lessons Learned:**

- Operational planning: Do not rely on the use of cranes for vessel to vessel transport, as high seas can make the task unsafe and impractical.
- SALVOR's transit speed was reduced due to salvage material loaded out.
- Kevlar mooring lines should not be used while moored to a support barge due to the chaffing. SALVOR parted not less than 4 lines during the operation.
- Hot-tapping oil tanks can get divers oily. Oil removal kits need to be on hand in large supply.
- Plan for 30% more diving while planning oxygen consumption for SUR "D" 02 dives.
- Brow should be configured from barge to SALVOR and should be constructed with steel to provide a stable cross over point during operation.

d. **CO's Evaluation:** A complete success. The team that was assembled to complete this mission was responsive to changing conditions and requirements, their flexibility during every phase of the operation ensured its complete success. The impact this operation had on the environment in Ulithi will be evident for generations to come. The effect 2 million gallons of oil could have on the reef structures alone, had it leaked, would have devastated that community's ability to sustain its self.



All diving operations were well planned and expertly executed resulting in hundreds of hours of bottom time, a successfully completed mission, invaluable training for everyone involved and an increase in the Navy's organic capabilities in salvage operations at depth.

e. **Equipment Performance:** All diving and shipboard equipment functioned within normal parameters during entire operation with exception of SALVOR's Hyperbaric Chamber, which became inoperative for several days when a union joint failed. Diving tempo was not impacted due to the availability of a fly away recompression chamber brought by MDSU-1.

## 2. **July 25 - September 15:** West Coast Tow Operations.

a. **Objectives:** Transit 6,500 nautical miles to and from the West Coast to conduct multiple towing operations. Tow YDT-253 Crane Barge 1,440 nautical miles from San Diego, California to Bremerton, Washington. Upon completion of the YDT tow, tow EX-USS John Young 2,091 nautical miles from San Francisco, California to Oahu, Hawaii.

b. **Results:** Successful.

c. **Lessons Learned:** Crane boom tie down rigging failed during heavy weather.

- When securing a barge crane for sea, expect the worst and rig the boom accordingly.
- Inspect flooding indicators on tow during daylight to ensure indications are evident, and not misinterpreted as sunlight reflection or alarm conditions.

d. **CO's Evaluation:** Tow operations proved outstanding from an operational prospective and equally allowed SALVOR to train in other mission areas. SALVOR left C2 in training and returned C1 in training, including completion of a night underway replenishment and vertical replenishment, two long overdue training events.

e. **Equipment performance:** All shipboard systems functioned within normal operating perimeters. Tow machine performed as expected. No equipment casualties occurred during the duration of the operation.

## 3. **September 29 - December 03, 2003:** Planned Maintenance Availability

a. **Objectives:** Complete an intensive work package containing over 84 jobs during a nine week period including 17 AER's designed to make numerous upgrades, repairs and alterations in various shipboard systems and equipment, thereby increasing the efficiency of the ship as well as extending her service life.

b. **Results:** Completed the following major work items:

- Flushed all MPDE jacket water systems
- Installed ADNS, INMARSAT HSD, and MCPP systems allowing compatibility in satellite communications with other naval assets.
- Refurbished 11 communications antennas
- Installed MX-9 shaft seals
- Installed electrical vent heaters throughout the ship
- Complete overhaul and weight test of the 40 ton and 7 ½ ton booms
- Completed LP Air receiver certification
- Completed rehab of all Officers staterooms as well as the CO and XO's Cabins
- Repaired aft salvage hatch
- Sand blasted and painted Aft Salvage deck
- Replaced Aux Boiler F/O service swing check valve
- Made repairs to F/O tank vents
- Overhauled clutches for all four main propulsion diesel engines
- Replaced #2 fire pump
- Made repairs to both forward and aft AFFF pumps
- Certified divers HP Air flasks
- Completed numerous repairs to all main propulsion diesel engines and ship's service generators
- Major repairs where completed on brine tank hull structures
- Replaced flywheel for 1B MPDE
- Repairs completed on extensive runs of CHT piping

c. **Lessons learned:** Ship's force must continue to work closely with contractors and SUPSHIP personnel. Verify Government furnished material. Ensure work specifications are correct ahead of time. When conducting extensive communications equipment upgrades/repairs that necessitate transfer of LAN Systems to a temporary server or host station (barge), ensure all data, to include e-mail, is backed up prior to transfer. Be flexible to monetary constraints. Provide appropriate ship's force personnel for all briefs prior to A-0. Ensure berthing barge plans are made well ahead of time so s/f has time to set up barge with minimal down time.

d. **CO's evaluation:** PMA was a success because we received some significant equipment upgrades and repairs. However, two specific issues plagued us. First, our critical path job, replacing all steam heaters with electric heaters was not completed because about 15% of the material was lost in shipment. The install will not be complete until April 2004. Second, the PMA contract did not specify a ship's force move aboard date prior to the end date of the availability. Move aboard date was tied to CHT availability and when the CHT work was delayed the move aboard date slipped as well. The overall impact was that the crew had significantly less time to regain control of equipment and spaces than needed which forced the crew to work excessive hours to restore ship systems to full operational status and allowed no time to recover from a major equipment failure.

e. **Equipment performance:** All upgrades, repairs, and alterations are performing up to standards with minimal down time or failure since put in operation.