Supervisor of Salvage and Diving (SUPSALV)

Navy/SUPPSALV Response Capability

An Overview
Brief Overview

➢ Authority

➢ Navy Salvage TRIAD and Salvage Task Organization

➢ SUPSALV’s Responsibility/Capabilities (00C2)
  • Salvage
  • Pollution

➢ Recent Operations and Exercises

➢ Support Agreements and Response
Navy Salvage: SECNAV & CNO Assigned Missions

Authority: 10 U.S.C. §7361-7364 (Salvage Facilities Act) authorizes the Secretary of the Navy to provide necessary salvage facilities; and to provide Oil Spill Response Capability.

33 CFR Part 155 (OPA-90) requires Salvage and Marine Firefighting; and Oil Pollution Response capability in VRPs (MSC and Navy exercise Voluntary Compliance)

SECNAVINST 4740.1B delegates Secretarial authority of SFA to SUPSALV - “…the Supervisor of Salvage … is delegated all Secretarial authority in [10 U.S.C. 7361-7364] to provide salvage facilities for public and private vessels, and to acquire and transfer vessels and other salvage equipment.”

OPNAV 5090.1C is Navy’s Environmental Requirement and Policy and directs Vessels comply with the planning requirements of OPA-90 (33CFR155) despite a legal exemption as a “public vessel”.

OPNAV 4740.2G is Navy’s Salvage Requirements and Policy
SUPSALV Assigned Missions

**OPNAV 4740.2G** - Navy’s Salvage Requirement and Policy and directs SUPSALV:

**Undersea Ops:** Maintain and operate deep ocean search and recovery assets to a maximum depth of at least 20,000 feet of water.

**Salvage Ops:** Assume responsibility for any salvage or recovery operation when so assigned...” and Coordinate salvage and recovery services...

**Salvage Support:** Provide Fleet Commanders with equipment and systems to assist in the accomplishment of salvage and recovery missions and Provide for procurement, maintenance, and distribution of salvage and related pollution abatement material to the Emergency Ship Salvage Material (ESSM) bases.

**OPNAVINST 5090.1C** - Navy’s Environmental Requirement and Policy and directs that SUPSALV:

Ensure Navy’s Equipment inventory for major and offshore spill events is drilled/exercised in accordance with this document.

Provide expertise and equipment …for spills exceeding local capability...

Provide advice, personnel, and equipment, as appropriate for joint/pollution operations.

Assist NOSCs in major OHS pollution response issues as they arise and in decision-making for major or offshore/salvage related response operations.
Navy Capability Salvage: Migration

Then circa 1993

Salvage Squadrons (2)
  - MDSUs 1&2
  - ARSs (10)
  - ATSs (3)
  - T-ATFs (7)

Salvage Task Organized w/ Consolidated Operational and Administrative Control

Now

Core FLEET Capability
  Salvage Force Programming
  Operational Planning, Engineering & Organization
  Independent Ship Salvage
    Mobile Heavy and Light Salvage
  Tow Planning & Oversight
    Salvage Equipment
    Deep Ocean S & R
    Technical Authority

MDSU ONE & TWO
  T- ARSs (4)
  T-ATFs (4)

SUPSALV (NAVSEA)

- Functional and Administrative Control is Segregated
- Task Organization complicated

THEREFORE

Operational Interdependence Required

- SUPSALV now the center for full range Salvage and Towing expertise
- ESSM now a critical enabler for MDSU and Salvage Ship operational capability and training
Mobile Diving and Salvage (MDSUs) Expeditionary Salvage Capability

- Light Salvage *
- Site Survey and Assessment
- Battle Damage Assessment and Repair
- Emergent Underwater Ship’s Husbandry
- Surface Supplied Diving Operations (≤ 300 FT)

15 Companies/MDSU with ~17 Personnel/Company

*Medium and Heavy Salvage when augmented with T-ATF/ T-ARS and/or equipment from ESSM
Military Sealift Command
Ship Towing and Salvage

T-ATF (x4)
- Towing
- Fire Fighting Assistance
- Salvage & Diving*
- Deep Ocean S&R VOO
- Oil Spill Recovery VOO

T-ARS (x4)
- Salvage & Diving*
- Lifting*
- Emergency Repair*
- Fire Fighting Assistance
- Towing
- Deep Ocean S&R VOO
- Oil Spill Recovery VOO

* When augmented with material, equipment, and/or personnel
SUPSALV Salvage Capability
EMERGENCY SHIP SALVAGE MATERIAL (ESSM) SITES

Network of emergency response equipment pre-positioned to support SUPSALV and US Fleets

Proven Model For Rapid Deployment

- Ready to Deploy: Salvage & Oil Pollution Response Systems
- Ready to Support: Operators & Maintainers
- Fleet Salvage and Diving Force Enabler
SUPSALV Salvage Contractors

Full Service
Open & Competitive Award

Deep Ocean Search & Recovery Contract – Phoenix International
Deep Ocean S&R Capability

- 1,000, 8,000, 20,000 FSW
- 20K FSW Search and Recovery
Pollution Response
• Operated by SUPSALV ESSM Contractors
• DoD OSRO for WCD (Usually Tiers 2 and 3)
• Can be cited in Federal FRP’s and VRP’s
• Transportable, quick set-up
• Sustainability in austere environments
• Systems designed to support Salvage (lightering and clean up)

Spill Response is an Essential Salvage Enabler … and vice-versa
SUPSALV Equipment Overview

- Skimmer Systems (Class V & NOFI Current Buster)
- Not intended as first response
- Additional resources may be needed – scenario dependent
Navy Salvage Response

Tasking and Authority

**Direct to SUPSALV:**
- USN fleet support
- USCG/USACE via ISA

**Via CNO N31 (DSCA):**
- DOD/NORTHCOM
- Federal agencies (NRF / Stafford Act) (NTSB, NASA)
- Foreign governments

**FEMA Reform Act; 6 Oct 2006** Enables Federal response to disasters …
Criteria: save lives, prevent human suffering, mitigate severe damage, etc.
Deep Ocean Salvage,
Search & Recovery
300 – 20,000 FSW
~15 Operations Per Year

Underwater Ship
Repair
- Procedures/Tech Development
- Ship Design
- ~100 Ops Per Year
- Up to 20:1 ROI

Ship Salvage, Towing,
and Heavy Lift
- ~20 Ops Per Year
- Includes National Emergency Response (Katrina, Sandy)
- Assist to USCG

Diving/Certification
- USN Lead Service for Diving
- DIVMAN & Decompression Tables used worldwide
- Navy Experimental Diving Unit
- Equipment Development & Procurement
- Certification Authority for DoD

Oil Spill Response
- Large Inventory Sized to Act as Tier II/III OSRO for Navy Ships/Facilities
- Emphasis on Transportability in Austere Environments

Deepwater Horizon Oil Spill
SUPSALV Recent Response Operations

San Francisco Dry-Dock Remediation

USACE Kaw Dam Crane Recovery (Kaw Lake, Oklahoma)

ALFS S&R (VA Capes)

T-34 S&R (Corpus Christi, TX)

USMC AV-8B S&R (Gulf of Aden)

USS TAYLOR Grounding (Samsun, Turkey)

NUWC Target Support & Torpedo Recovery (Norfolk, VA)

USS GUARDIAN Grounding (Sulu Sea, PI)

Fort Pierce, FL

CSS GEORGIA, Savannah, GA

USNS KOCAK Grounding Okinawa, JN

USS TAYLOR Grounding (Sulu Sea, PI)

USAF JTA S&R (Kwajalein Island)

Hurricane Sandy
Bahrain Oil Spill Response TTX Planning Support for COMNAVREG Hawaii CNRSW Salv/OSR Exercise (Chukchi Sea, AK) USCG LA/AB Area Exercise Support (Ventura Cnty, CA) SUPSALV Recent Exercises Navy, Air Force, USCG Arctic Ice OSR Exercise (Elmendorf AFB, AK) Navy, Air Force, USCG Arctic Ice OSR Exercise (Elmendorf AFB, AK) MSC Ship Exercise Virginia MEXUS Gulf OSR Exercise MSC Ship Exercise Hawaii Bahrain Oil Spill Response TTX Planning Support for COMNAVREG Hawaii
SUPSALV Recent Technical Support

- MCM Heavy-Lifts to Bahrain and back
- USACE OSR Support Kazakhstan & Uzbekistan
- DDG1000/LHA/LCS Module Moves
- USCG Caribbean Offshore Spill Planning
- YPT Repositioning for MDSU 1
- CONSTELLATION and RANGER Tows Bremerton to Brownsville
- PACOM OSR Support Sri Lanka
National Maritime Salvage Response Background and OPS

- SUPSALV DOD REP to the NRT
  - National Response Team ➔ National Response Framework (NRF)

- 2003: Marine Salvage Workshop held by Transportation Research Board (Marine Board)

- 2005: Hurricane Katrina/Rita: marine response organizational challenges

- 2007: I-35 Bridge Collapse

- 2008: U.S. Marine Salvage Assets and Capabilities in a Maritime Disaster Workshop
  - Conclusion: US can handle IF ... Combined US Navy and Industry Salvage Capability required

- 2010: Haiti Earthquake;
  - DWH SONS Response

- 2011: Tomadachi, JN Response

- 2013: Hurricane Sandy
Waterway Obstruction

I-24

- Interagency Collaboration
- Pre-MOA
- SUPSALV & MDSU Support

I-35
# USCG and USACE Support Agreements

<table>
<thead>
<tr>
<th></th>
<th>USCG w/ Navy</th>
<th>USACE w/ SUPSALV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date</strong></td>
<td>SEP ‘80 (under Revision)</td>
<td>JAN ‘11</td>
</tr>
<tr>
<td><strong>Authorities</strong></td>
<td>NCP; 33 USC 1251(Pollution Control Act); NRF ESF #10; Salvage Facilities Act – 10 USC 1761</td>
<td>Rivers and Harbors Act 1899 defined by 33CFR part 329; NRF ESF #3; Salvage Facilities Act – 10 USC 1761</td>
</tr>
<tr>
<td><strong>Support/Assistance</strong></td>
<td>Oil Spill and Salvage&lt;br&gt;OSR &amp; Salvage specialized equipment and expertise&lt;br&gt;Consultation, evaluation, planning and operation Naval craft, vessels and aircraft Reciprocal</td>
<td>Salvage&lt;br&gt;Initial response assessment and management&lt;br&gt;Salvage specialized equipment and expertise for: Salvage, towing, heavy-lift, diving support</td>
</tr>
<tr>
<td><strong>Requests/Tasking</strong></td>
<td>SUPSALV may be contacted directly by the FOSC&lt;br&gt;The FOSC shall make the request via a message to SUPSALV with parallel request for support forwarded to Chief of Naval Operations CNO N311</td>
<td>SUPSALV may be contacted directly by a USACE District office. Parallel request for support forwarded to Chief of Naval Operations CNO N311, by USACE via message.</td>
</tr>
<tr>
<td><strong>Funding</strong></td>
<td>Pollution Removal Funding Authorization (PFRA) or Military Interdepartmental Purchase Req (MIPR) USCG shall reimburse SUPSALV its actual costs of performing the services</td>
<td>Military Interdepartmental Purchase Req (MIPR) USACE shall reimburse SUPSALV its actual costs of performing the services</td>
</tr>
</tbody>
</table>
Navy Salvage Response

When do I consider Navy/SUPPSALV

When Both

Appropriate AND IBI of GOV

- RP is GOV or
- RP Unknown or
- National Response/SONS or
- Tech Assist/Operational Management

- Unique Capability or Capacity or
- No RP and cost benefit to GOV or
- Tech Assist/Operational Management
SUPSALV NEWS

- 9/26/2015  SUPSALV Validates LCS APU Removal/Installation Procedures
- 7/22/2015  SUPSALV Support for CSS Georgia Recovery Operations
- 4/23/2015  SUPSALV clears Fort Pierce Channel of Sunken Barge
- 4/10/2015  SUPSALV conducts hull cleaning on Navy’s Oldest Ship

SUPSALV Validates LCS APU Removal/Installation Procedures

24 September 2015

WASHINGTON - The Naval Sea Systems Command’s Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving (SUPSALV) has responded to a PEO LCS request to establish underwater maintenance and repair processes and procedures for the Retracting Azimuthing Thruster (RAT) for INDEPENDENCE variant Littoral Combat Ships. SUPSALV’s Underwater Ship Husbandry Division (UWSH) that develops underwater repair procedures for the fleet was assigned the task.

The RAT, which on other classes of ships is known as the Auxiliary Power Unit, is located forward on the hulls, is hydraulically driven, and extends and retracts outside the hull, where the extreme curvature complicates cofferdam placement without welding pad eyes to the structure. SUPSALV’s UWSH team and its contractor, Global PCCI (GPC), working with the RAT manufacturer Tornamaster of Texas (TMTG) developed a solution that eliminated the need for an oversized cofferdam and pad eyes by designing a cofferdam to be installed directly to the RAT motor housing.

To verify and test the draft procedures, SUPSALV scheduled a week at TMOT and offered the opportunity to our fleet Navy divers to both assist in the evaluation and provide training opportunity. Fleet Navy divers from Southwest Regional Maintenance Center and Japanese divers from Japan Regional Maintenance Center were on site and walked through the procedural steps from removal to replacement of the RAT assembly. “The opportunity to have our fleet Navy divers as well as our Japanese counterparts onsite and involved is key,” said CWO3 Joe Theodorou, UWSH LCS program manager. “Validation of this procedure allows us to have a positive impact on fleet readiness, helps avoid unnecessary dry dockings, and ensures that our ships will meet their mission by getting them quickly back into service.”
QUESTIONS?
Pollution Equipment in CONUS

- 27 Offshore Skimmer Systems (22 Marco & 9 VOSS)
- 6 Salvage Spill Support Vans (Smaller Boom & Skimmers)
- 20 Oil Storage Bladders (26k – 290k gallons)
- 88,000 ft Offshore Inflatable Containment Boom (42”)
- 71 Boom Mooring Systems w/ 52 Deep Water Extensions
- 16 Boom Towboats, 24 Rigid & Inflatable Tending Boats
- 13 Tanker Offload Systems, 4 Pumping vans w/ 2”-6” pumps, 4 floating hose systems and 9 Lightering Fender Systems
- 7 Hot Tap Systems
- 4 Steam generators and 4 Oil Bladder Transfer System
- 8 Offshore Fire Fighting Systems
- 3 Modular Working Platforms & 2 Material Transfer Systems
Salvage Equipment in CONUS

- 53 Portable Air Compressors (175 and 600 CFM)
- 14 Beach Gear Systems
- 20 Portable Capstans/Winches
- 55 Generators (5 and 30 kw)
- 24 Light Towers and 7 Light Kits
- 9 Pontoon Lift Bags (22k lbs)
- Over 150 Pumping systems (various)
- 5 Spooling Systems
- 9 Underwater Cutting Kits
- 12 DC Welders (400 Amp)
- 6 Fly Away Deep Ocean Salvage Systems (15, 30, 60 kip)
- Synthetic Line Systems (various types and sizes)
- Tow Hawser Systems and Towing alarm system
- 7 Personnel and 4 Equipment Transfer Boats
- 7 Beach Transfer Systems
- 11 Command Trailers/Vans
- 7 Rigging Vans
- 6 Shop Vans
- 10 Personnel Bunk Vans
- 5 Equipment Decontamination Vans
- 2 Supply Vans
- 15 land-based communication systems, 2 shipboard
SUPSALV Mission Capabilities
Fleet Support

• Operational Responsibilities
  – Emergency Ship Salvage Material (ESSM Bases)
  – Deep Ocean Search and Recovery
  – Maintain Standing Marine Services Contracts
    • 3 Salvage Zones, Diving, Search/ROV Ops, ESSM/Pollution
    • Verbal Delivery Orders – Cost Plus Award Fee
  – SUPSALV Engineers & Operations Specialists

• Technical Authority
  – Technical Warrant Holder for Diving and Salvage
  – Develop and Procure Equipment
  – Technical Documentation (Manuals, Specifications, etc.)
  – On Scene and Remote Technical Advise & Support