



NAVSEA 00C



Salvage Response Case Study

Port of Los Angeles/Long Beach

Scenario

Navy Supervisor of Salvage and Diving
Naval Sea Systems Command
www.supsalv.org



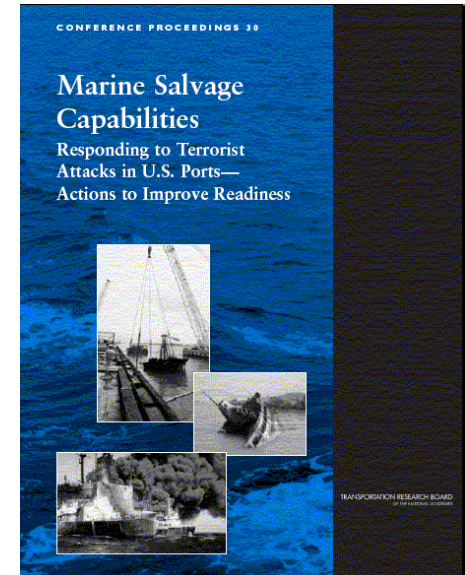


LA/LB Port Disaster and Recovery

Background

2003: Marine Salvage Workshop held by Transportation Research Board concluded:

- ❑ ***“Physical salvage capabilities in the U.S. have not been documented and evaluated in sufficient detail to define whether the nation has an adequate readiness posture for responding to terrorist incidents in major seaports.”***



Other Driving Forces:

- ❑ **SUPSALV’s role as salvage advisor to the National Response Framework requires a quantifiable understanding of nation’s salvage response capability**
- ❑ **Hurricane Katrina/ Rita highlighted the potential challenges associated with a major port disaster**



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SUPSALV: DoD, 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.***

- ↪ ***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 4740.2G is Navy's Salvage Requirement and Policy***

SUPSALV DOD REP to the NRT



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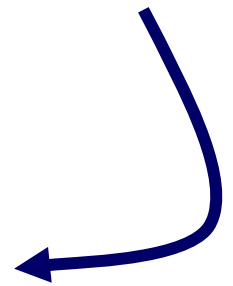
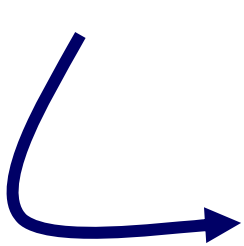
Navy National Salvage Response Tasking and Authority

SUPSALV:

**Salvage Facilities Act
(10 USC § 7361 *et seq.*) and
existing agreements
(USCG, NTSB, etc)**

FLEET(MDSU/SHIPS) and/or SUPSALV:

**Stafford Act
DOD/NORTHCOM**





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Case Study

SUPSALV tasked Crowley Marine Services/Titan Salvage (West Coast Contract) to perform a salvage response study of a stressing marine casualty scenario in the ports of Los Angeles and Long Beach, CA

Objectives:

- Assess response capability and associated timelines of U.S. salvage industry**
- Facilitate more effective planning for a major response effort by identifying:**
 - ✓ ***potential challenges***
 - ✓ ***actions that could enhance progress***





LA/LB Port Disaster and Recovery

Scenario

Port of LA/LB falls victim to coordinated terrorist attacks against 2 ocean-going vessels (Targets)

- ❑ **Target 1: Explosives detonated onboard container vessel (M/V VOYAGER) and she quickly sinks, blocking the LA main channel**
- ❑ **Resulting shock wave causes 3 nearby vessels to collide**
- ❑ **Immense damage to shore facilities within 1 mile radius of explosion**



**Target 1: 1000 ft container vessel
M/V VOYAGER**

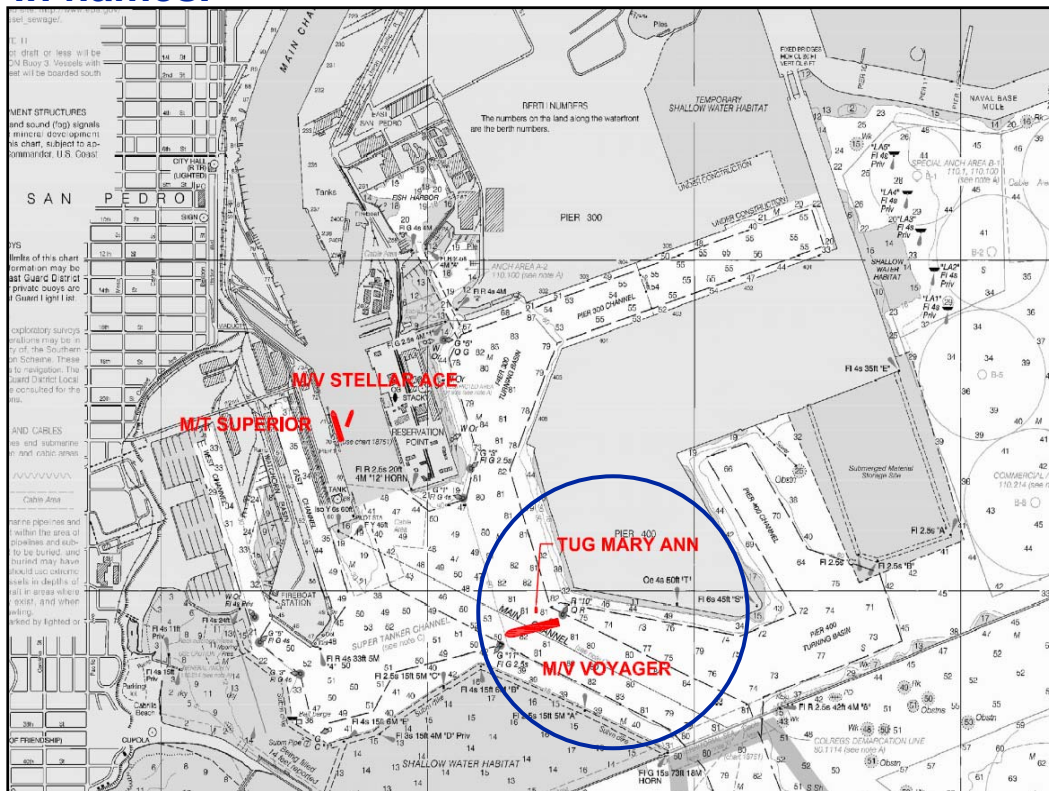




LA/LB Port Disaster and Recovery

Scenario – Target 1

- 0725 container ship M/V VOYAGER, inbound LA channel, takes a sudden shear to port towards the “11” buoy.
- 0728 VOYAGER has picked up sternway and heading about 255 T, gaining slow sternway across the channel towards pier 400
- 0729 powerful explosion port side near amidships; seconds later a second powerful explosion to starboard just forward of the house. Hatch covers, containers and debris blasted away. VOYAGER engulfed in flames.
- Tug MARY ANN; shock wave kills the Master and Mate; OofC careens into the VOYAGER and punctures the starboard side.
- VOYAGER quickly sinks; 84 ft of water on an even keel, heading 242T and blocks main channel.
- Petroleum products, HFO and MGO form a large slick expanding the fire.
- Tug MARY ANN floats free from VOYAGER's side, founders and sinks.





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Scenario – Target I (cont.)

- ❑ **0729 STELLAR ACE**, small heavy lift ship loaded with militarized vehicles, is just ahead of **VOYAGER** in Main Channel; shock wave from explosions incapacitates pilot and bridge crew; engine control, thrown to full astern.
- ❑ **0735 STELLAR ACE** backs into **M/T SUPERIOR** discharging propyl alcohol at the Westways Terminals, berth 70.
- ❑ **Impact on SUPERIOR** punctures tank containing **ETBE** (ethyl tert-butylether, gasoline additive) which explodes into the tank group discharging propyl alcohol; **SUPERIOR** is engulfed in fire. Fire spreads forward to tanks containing acetone and propylene glycol
- ❑ **STELLAR ACE** rolls starboard and sinks in 54 ft of water with about 6 ft of her port hull exposed. Stern rests close to the **SUPERIOR** and bow extends 25 yards into the main channel.





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Scenario – Target 2

- ❑ **Target 2: Small private plane intentionally crashes into car carrier (M/V PANTHER) and she rolls and sinks, blocking LB entrance channel**



**Target 2: Car carrier
M/V PANTHER**





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Scenario – Target 2

- ❑ 0729 - Pilot and Master on car carrier M/V PANTHER hear two immense explosions from Target 1 and observe the rising fireball over the VOYAGER.
- ❑ 0731 - Pilot receives word via VHF that the MARSEC level raised to 3 but committed to the LB entrance channel, continues at 6 kts.
- ❑ 0738 - Small plane into M/V PANTHER low amidships; massive explosion. Pilot attempts to get PANTHER to West Basin and clear LB Channel
- ❑ 0748 - PANTHER rolls port and sinks; bow of the PANTHER facing the West Basin w/ stern blocking the LB channel. Bow in 45 ft of water and the stern extending into the channel in 78 ft of water; about half the hull is exposed.





LA/LB Port Disaster and Recovery

2 attacks and resulting 5 severe casualties cause immediate shutdown of LA/LB port facilities and develop into major pollution incidents.

M/V PANTHER

M/V STELLAR ACE

M/T SUPERIOR

TUG MARY ANN

M/V VOYAGER



LA/LB Port Disaster and Recovery

Scenario Assumptions

- ❑ California “state of emergency” - Unified Command established
- ❑ Search & rescue, security, and law enforcement activities delayed
response access to the port area for first 48-72 hours
- ❑ Response is “federalized”- SUPSALV (NORTHCOM) requested to manage the effort exercising standing regional contract; tap into commercial salvage resources
- ❑ Vessels declared constructive total losses; removals essential to regaining port functionality
- ❑ Wreck removal beyond any one organic salvage company’s capability and will require collaborative effort
- ❑ Timeline is a “best-case” forecast based on favorable weather working days w/ two 12 hour shifts and minimal human obstacles
Required EAs, permits, waivers, etc, are in place so as not to impede work progress
- ❑ National Defense Waiver approved for foreign flag support vessels as required

NOAA pollution time model → → →