# U.S. Navy Supervisor of Salvage and Diving NAVSEA OOC

# <u>2015</u>

- Wreck Oil Removal
- Grounding off Okinawa
- Deep Ocean Search and Recovery

CAPT Gregg Baumann
Supervisor of Salvage and Diving;
Director of Ocean Engineering
Naval Sea System's Command
www.supsalv.org

Phone: (202) 781-0731

# **Wreck Oil Removal**



### POTENTIALLY POLLUTING WRECKS

- World-wide issue, numerous governments have initiatives
- US waters, NOAA has mature, well analyzed database
  - ~20,000 vessels
  - Prioritized by threat potential
- Navy/DoD world-wide

#### **US NAVY POLICY**

- > CNO Instruction (5090.1D) requires a board to consider each sunken "threat" (any ship, aircraft, container) as identified.
- > SUPSALV is Technical Representative to the Board.
- > Boards Convened:
  - Ex-USS MISSISSINEWA, tanker, 1.8M gal Black oil removed, Ulithi Atoll (2003)
  - Ex-USS CHEHALIS, tanker, 60K gal gasoline removed, Am Samoa (2010)
  - WW II Era PV-1 Aircraft near Beaufort SC (2014), No Action Feasible
  - Ex-USS HOUSTON, Cruiser off Indonesia (2015), Currently in planning

# Ex-USS MISSISSINEWA, Tanker Ulithi Atoll (2003)

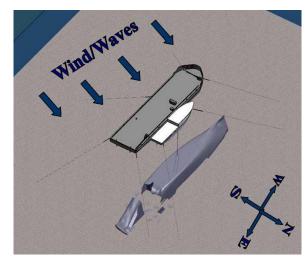




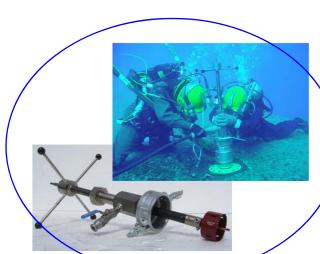




- Removed 1.8M Gals of Black Oil from sensitive lagoon from 21 tanks, engine room and pump room
- Navy ship and divers with SUPSALV contractor tug, barge and equipment support
- > Excellent conditions, challenging logistics
- Used hot tapping (upper right)



Ex-USS CHEHALIS, Tanker, Pago Pago Samoa, 2010



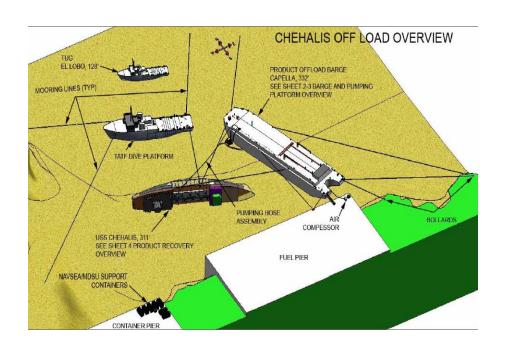




Skimmer Suction Head for gasoline



- > 60K gal gasoline
- Gasoline required special precautions, precluded hot tapping gasoline cargo tanks
- USN ship and divers with SUPSALV contractor tug, barge and equipment
- Excellent conditions, challenging logistics



## **EX-USS HOUSTON, Indonesia**

Oil Unlikely in Tank

19

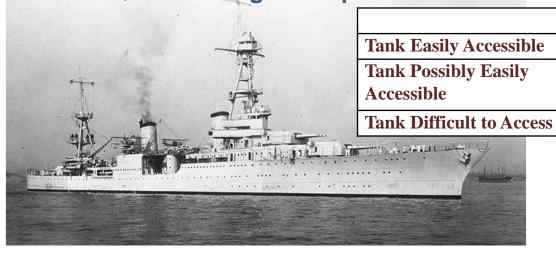
11

Oil Likely in Tank

13

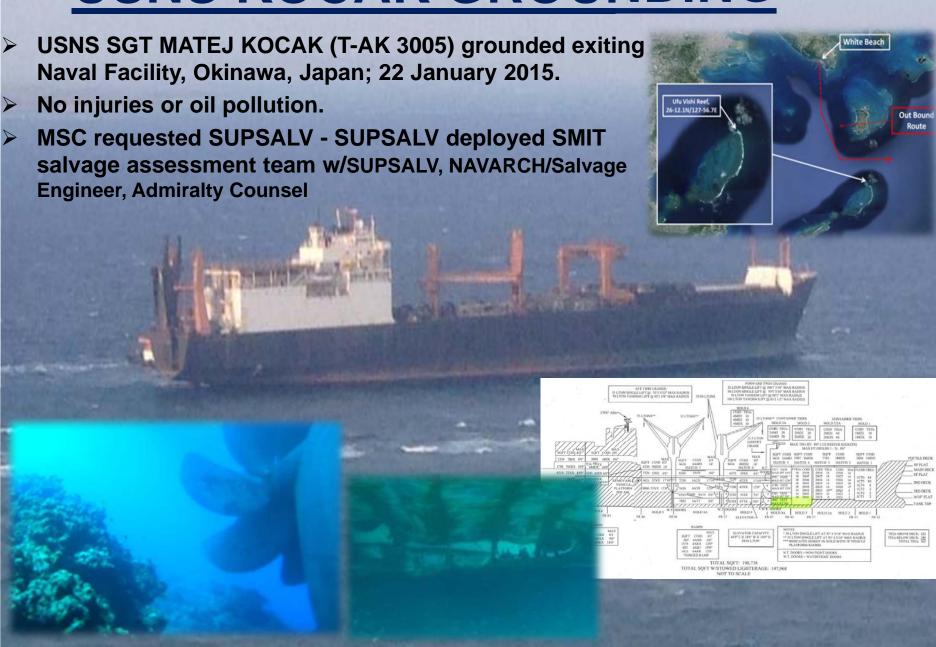
11

- Cruiser sunk 1942 in Indonesian Territorial Waters
- > 90-130 FSW, on starboard side
- War grave for 645 men
- Leaking oil slowly
- > Armored cruiser with 66 fuel tanks, 345K gals black oil max on sinking but sustained extensive damage, 27K largest single tank
- Board recommended more extensive survey, approved by SECNAV
- > Sample (requires drilling) as many tanks as possible
  - Large number of small tanks
  - Armor belt
  - 6-8 ft visibility w/ 1.5kt current
  - Saturation diving best option



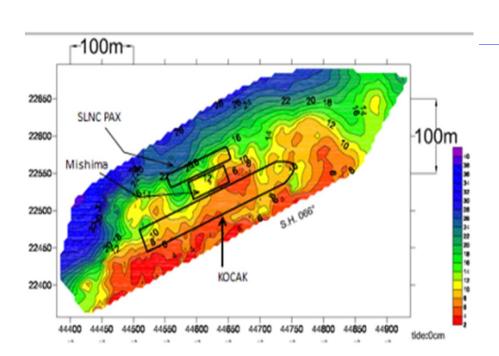


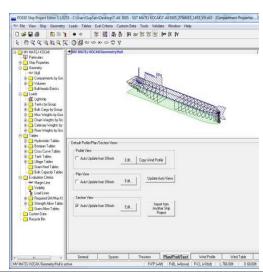




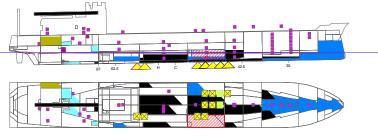
## **KOCAK GROUNDING**

- Dive survey and Modeling
- Lightering and Refloat Plan (Ballast and DFM)
- Refloated on high tide 03 FEB (12 Days)





31 JAN 1434 (Current Loads) Grounding Summary



 Ground Type
 Mult. Pins

 Total Reaction
 3,335 LT

 LCR
 0.03A Ft-MS

 TCR
 8.69S Ft-BL

 Force to Free
 5,002 LT

 Eff. Friction Coeff.
 1.50

 Tide Height
 4.49 ft



## **Deep Ocean Search and Recovery**

## C/V EI Faro

- **➤ Lost on 01 OCT during Hurricane Joaquin**
- > NTSB & USGC Investigation ongoing
- > SUPSALV requested for S&R assistance
  - Mobilized in USNS APACHE
  - TPL (Towed Pinger Locator); ORION (SSS) and CURV (ROV)







- ➤ Located by ORION 31 OCT 15,500FSW
- > Visually confirmed and videoed 1- 2 NOV
- Upper level of house w/ VDR separated
- > Search continues

