



# ***U.S. Navy Supervisor of Salvage and Diving NAVSEA 00C***

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# SUPSALV Overview

## Underwater Ship Repair

(N97 & Customer Funded)

- ❑ Procedures/Technology Development
- ❑ Ship Design for Underwater Repair
- ❑ Up to 7:1 Return on Investment



## Search & Recovery (N97 & Customer Funded)

- ❑ Air France Flight 447
- ❑ Space Shuttle Columbia & Challenger
- ❑ Ehime Maru
- ❑ Cargo Ship El Faro (NTSB Customer)
- ❑ DARPA/SSP Special Projects
- ❑ Malaysian Airlines Flight #370



## Salvage, Towing, & Heavy Lift

(N97 & Customer Funded)

- ❑ Disaster Relief: Hurricane Sandy, Haiti Earthquake, Japan Tsunami, Hurricanes Katrina & Rita
- ❑ USNS SGT MATEJ KOCAK Grounding
- ❑ Refloating and Salvage of the Ex-SHADWELL
- ❑ USS GUARDIAN (MCM 5)

## Oil Spill Response (N45)

- ❑ Deepwater Horizon Oil Spill
- ❑ Ex USS CHEHALIS Fuel Removal
- ❑ Hurricanes Katrina and Rita
- ❑ Operation Iraqi Freedom
- ❑ USS MISSISSINEWA Oil Removal
- ❑ Large Inventory Sized to Act as Tier II/III OSRO for Navy Ships/Facilities
- ❑ Emphasis on Transportability in Austere Environments

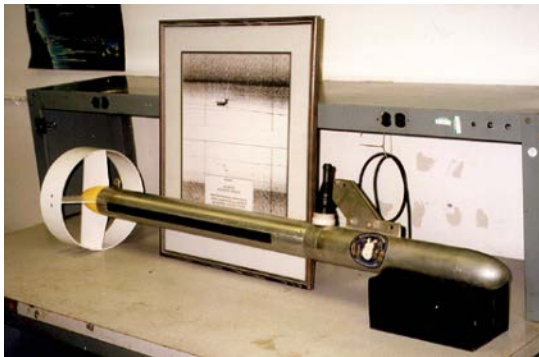
## Diving/Certification (N97)

- ❑ Saturation Diving Capability
- ❑ Navy Experimental Diving Unit  
One of a kind in the world
- ❑ USN Lead Service for Diving
- ❑ USN Diving Manual & Decompression Tables used worldwide
- ❑ Equipment Dev & Procurement
- ❑ Certification Authority for all DoD





# SUPSALV Search & Recovery Systems



Shallow Water Intermediate Search System (SWISS)  
Depth - 7,000 ft



FADOSS 60-Kip  
Ship Motion  
Compensator



Orion21 Side Scan  
System  
Depth - 20,000 ft



Towed Pinger  
Locator (TPL)



Magnum ROV  
Depth - 8,000 ft



Deep Drone ROV  
Depth - 8,000 ft



MR2 HYDROS  
Depth - 5,000 ft



Cable-Controlled  
Underwater  
Recovery Vehicle  
(CURV) 21 ROV  
Depth - 20,000 ft



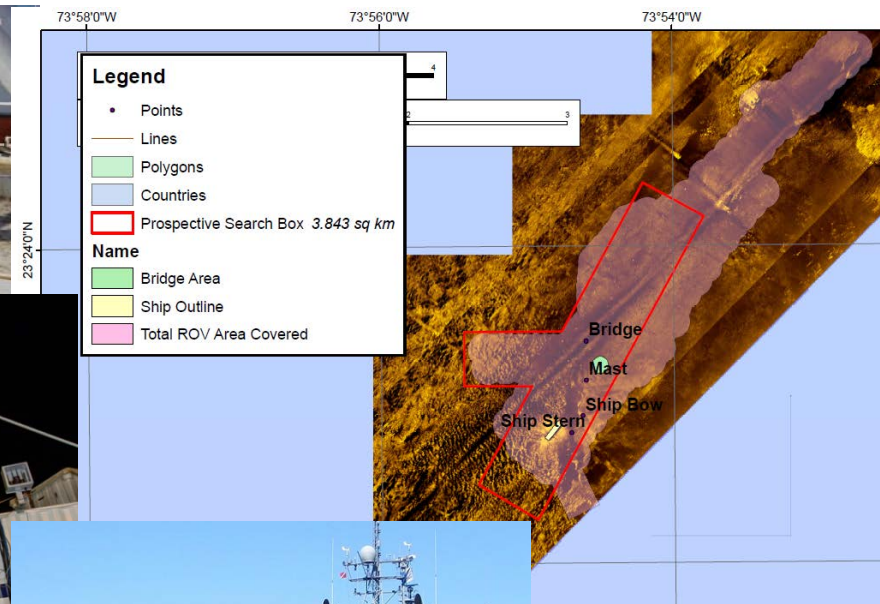
# Search for Cargo Vessel EI FARO

In support of NTSB





# Search & Recovery, El Faro & VDR





# Questions?

