

KLEIN MARINE SYSTEMS

2018 SIDE SCAN SONAR TRAINING

THE DIFFERENCE IS IN THE IMAGE!!

Klein Marine Systems, the world leading manufacturer of high-quality side scan sonars, will be hosting a three (3) day side scan sonar training including a one day on-water practical training.

January 29-31, 2018 - 8:30 am —4:00 pm

Pensacola Grand Hotel, Pensacola, Florida

Training organized with the support of Higgs Hydrographic Tek, Tampa, FL

Participants will develop a thorough understanding of sonar image analysis as well as hands-on experience with single beam sonars such as the dual-frequency **Klein 4900**.

Who should attend:

Hydrographers, First Responders, Police and Fire Fighters, Marine Construction Surveyors, UXO SAR & Salvage Operators, Geologist and Habitat Mapping Specialists. The training will be held in English.

Training Topics

Principles of underwater acoustics (Sonar Record Analysis, Targets & Shadows, reflectivity of underwater materials, detailed target and shadow analysis, targets in the Water Column Under the Towfish) **Noise and Interference** (Surface Return, Acoustic Noise, Electronic Noise, Refraction and Biological Noise)

Anomalies (Second Sweep Returns, Cross Talk, Multi-Path, Ringing, Hyperbolas and Flaring) **General Sonar Imagery** (Shipwrecks, Hazardous Drums, Aircrafts, Automobiles, Fishing Gear, Marine Structures, Debris Fields) **Navigation** (Layback and Target Positioning, Search Patterns, Range/Overlap, Shallow Water Operations, Small Target Search, Crime Scene/Accident Mapping, Artificial Reef Surveys, Drowning Victims, Operating Sonar & MAG Simultaneously, Deep Tows)



Guest Instructor: Vince Capone

Vincent Capone, M.Sc. is a side scan sonar specialist and a regular instructor at the US Navy Mine Warfare Center. He has trained US EPA, US Army Corps of Engineers, numerous law enforcement agencies, first responders and numerous military organizations. Vince has worked with the US Navy Supervisor of Salvage on aircraft search and recovery OPS including the space shuttle Columbia. He planned the search for and was the operations manager for the successful recovery of Apollo 11 rocket motors from the deep ocean. Vince is a noted authority on underwater exploration as well as an ROV pilot and diver. He owns Black Laser

Learning which focuses on training in marine technology and software.

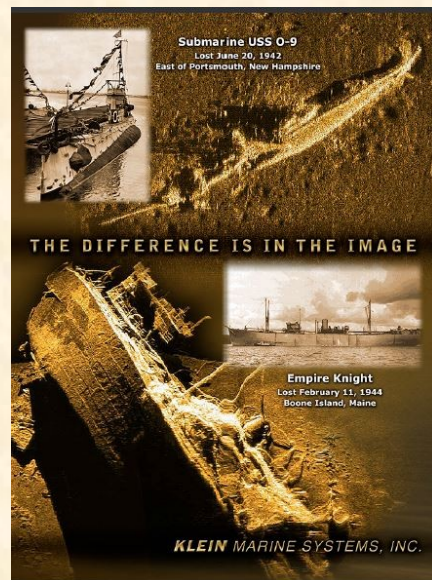
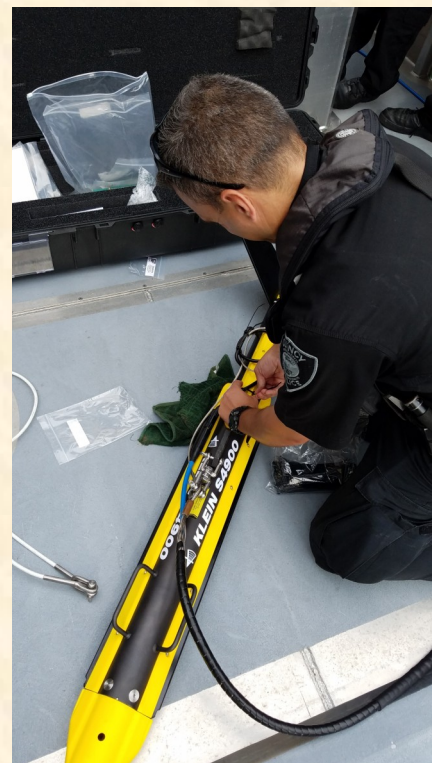
Training Costs:

\$990 USD per student

* Price includes training materials, training certificate and lunch each day.

Seats are Limited ~ Make sure you register early!

For reservations contact Sales@KleinMarineSystems.com or call Carol Morrissey at +1 (603) 893-6131 Ext. 272



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www.KleinMarineSystems.com