U. S. Navy Underwater Construction Teams

Underwater Construction: Enabling Freedom of Action Across the Sea to Land Interface, Where It Matters, When It Matters.

LCDR Michael Dobling, PE
Commanding Officer
Underwater Construction Team TWO
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Why do we exist?

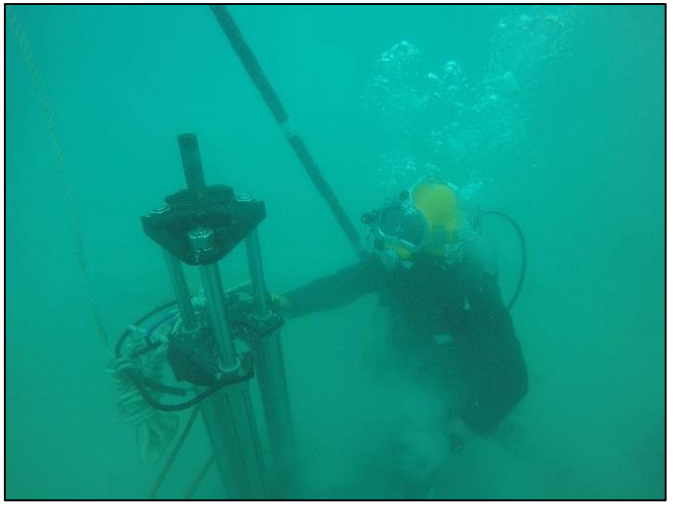
To enable freedom of action across the sea to land interface, where it matters, when it matters.

U. S. Navy Underwater Construction Teams

Who are we?

A specialized team of officers and enlisted who are highly trained in waterfront and underwater construction.

- Enlisted Underwater Construction Technicians with a Naval Construction Force background and become U.S. Navy divers.
  - 120 Techs (U.S. Navy wide inventory)
- Ocean Facility Program (OFP) Officers who are Professional Engineers and have a Masters in Ocean Engineering.
  - 65 OFP Officers (U.S. Navy wide inventory)



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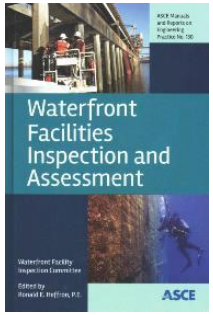
What do we do?

- Maritime Infrastructure Inspections and Assessments
  - –Divers trained in ASCE industry standard topside and underwater inspection procedures
  - –Dive certified Professional Engineers on staff with larger reach back support capability
- Hydrographic and Bathymetric Surveys (single beam, side scan)
- Maritime Infrastructure Conventional and Expedient Repairs
  - –Piers (concrete, steel, timber)
  - –Wharves and Quay Walls
  - –Fleet Moorings
  - –Undersea Pipelines & Cabling
- Expeditionary Light Salvage (i.e. vehicles, shipping containers, etc.)
- Bridge Inspection and Repair



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Where do we Operate?

Missions/Environments

- Desert
- Arctic/Ice diving
- Tropical
- Inland, nearshore & offshore
- Contaminated water
- Non-Permissive
- Disaster response
- Contingency operations
- Major combat operations
- Missions of state
- Partner capacity building
- Civ-Mil engagements

Operations Forward

- Indo-Asia-Pacific
  - Oceania (Palau, FSM, RMI)
  - South East Asia (Philippines, Thailand)
  - North East Asia (Japan, South Korea)
- Europe
  - Baltic States
  - Ukraine
- Africa
  - Gulf of Guinea
  - Horn of Africa
- Caribbean
  - Cuba
  - Puerto Rico

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What do we Dive?

- Self Contained Underwater Breathing Apparatus (SCUBA)

- Surface Supplied

- Transportable Recompression Chamber Systems

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How we do it?

- Underwater Power Tools (drill, grinder, chainsaw, jack hammer)
- Underwater Cutting and Welding
- Precision Demolition
- Ultrasonic Thickness Testing / Bathycorrometer
- Rapid Penetration Testing
- Single Beam and Side Scan
- Navy Dive Computer

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What other Engineer Divers are out there?

US Inventory

- UCT ONE, U.S. Navy (56)
- UCT TWO, U.S. Navy (56)
- 5 U.S. Army Engineer Dive Detachments, (120)

Allied Inventory

- Royal Thai Navy UCT (13)
- Philippine Navy UCT (30)
- Republic of Korea Navy UCT (15)
- Australian Army Engineer Divers (20)
- UK Ministry of Defense Salvage and Maritime Operations Divers

- I am sure I am missing some, a good reason for this conference!

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Recently Added Technology

- Diver Underwater Camera System (DUCS)

- Remote Controlled Single Beam Platform

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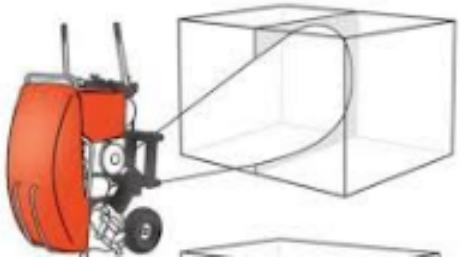
Where we are going!

- Unmanned Maritime Assessment Systems
  - UUVs
  - USVs
  - ROVs
  - UAVs

Family of systems with integrated sensors, common interface and tailored software package

- More networked dive computer
  - Extended bottom time
  - Optimization of work and data collection
  - Increased safety & easier accountability
- Modernized Underwater Tools and Materials
  - Battery operated and powder actuated tools
  - Unmanned tools
  - Smart tools



- Pre-Engineered Waterfront Infrastructure Solutions
  - Pre-packaged repair kits
    - Modular, lightweight facilities “in a box”
    - Analytic engineering software for damage assessment

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