# Trends in Navy Yards and Drydocks

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• Alexandria, Va.

The first Navy graving drydocks were completed at the Boston and Norfolk Navy Yards in 1833. After 140 years, these drydocks are still operable although infrequently used because of their small size.

There are now 48 graving drydocks in the naval shipyards to service the fleet and several new drydocks are under consideration. Changing ship geometrics and the incredible complexity of modern ships forces a continual review of the facilities to produce and service the Navy's ships.

The review is the responsibility of the design division, waterfront and weight-handling branch of the Naval Facilities Engineering Command where an in-depth study of drydocking "state of the art" and shipyard industrial engineering was recently completed.

The study included methods of technical and economic evaluation and applications for shipyard modernization. A current study concerns new high-ship-blocking designs for drydocking ships with keel mounted sonar domes. Also underway is a field test of an electronic load-indicating device for drydock portal cranes to enable a crane operator to determine the safety of the hook load and reach at all times during a weight-handling operation.

The ships of the future are expected to be larger and even more sophisticated and will, accordingly, require larger and more sophisticated drydocks to accommodate them.

**Artist's depiction of sailing ship entering the new dry dock at the Boston Naval Shipyard during dedication ceremonies.**

# NAVFAC/UCT-1 Install Undersea Sensors

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NAVFAC's Ocean Engineering and Construction Project Office (CHESDIV FPO-1) and Underwater Construction Team One (UCT-1) of the 21st Naval Construction Regiment recently completed successful installation of five sensor systems in depths varying from 70 to 2,600 feet off St. Croix, Virgin Islands. These underwater installations of *Project Classic Thicket* were conducted in support of undersea research.

Working within very tight time and monetary constraints, CHESDIV FPO-1 developed a construction system capable of installing the already designed and procured sensor systems within precise positional tolerances.

Each of two deep water systems, consisting of a single sensor system attached to a taut-moored sub-surface buoy string, was to be located within 50 feet of its position coordinates in a water depth of approximately 2,600 feet.

In addition, its sensor was to be plus or minus 10 feet of a prescribed depth. All three shallow water sensor systems were to be bottom mounted and precisely oriented and positioned. Effective performance of one system required its instrumentation to be leveled to with one-half degree of horizontal.

The basic construction system consisted of a YFU — the best available platform, upon which were mounted a fathometer for continuous monitoring of water depth, and a 25-ton crane and a tensioning winch for overboarding and lowering the various system components, respectively. CHESDIV FPO-1 engineers advised and assisted UCT-1 personnel with many of the topside operations, including the laying of five electromechanical submarine cables to their monitoring stations on the shore.

In water depths as great as 110 feet, divers of UCT-1 utilized their underwater construction skills and experience to precisely position, orient, and perform all the mechanical and electrical connections necessary to assemble the complete functioning sensor system.

This performance in support of *Project Classic Thicket* represents just one of the several accomplishments by the NAVFAC/NCF team this fiscal year as it continues to fulfill the Navy's role as a leader in ocean facility construction.

# CBC Davisville to Assume Logistics Role Sans Seabees

• Alexandria, Va.

In keeping with the Navy's effort to realign the naval shore establishment, the mission of the U. S. Naval Construction Battalion Center, Davisville, R. I. is to be reduced. The action is part of the overall Navy effort to consolidate fleet units and shore activities and to provide for more efficient operation, with reduced expenditure.

The reduction of the naval mobile construction battalions from 21 at the height of the Southeast Asia conflict to 10 at present, the current support operations at CBC Davisville are no longer required.

At the peak of the Vietnamese conflict, Davisville supported seven overstrength battalions. It is now the permanent duty station for Naval Mobile Construction Battalions 1, 40 and 71, and headquarters for Commander, Naval Construction Battalions, Atlantic; Commander, Naval Support Force, Antarctica; and the location for Naval Schools, Construction.

As a result of the planned action, NMCB 1 and 71 will relocate to the Naval Construction Battalion Center, Gulfport, Miss.; NMCB 40 and Commander, Naval Support Force, Antarctica will go to the Naval Construction Battalion Center, Port Hueneme, Calif.; Commander, Naval Construction Battalions, Atlantic will be located at Norfolk, Va.

NAVSCON and 21st Naval Construction Regiment will be disestablished.

The future mission of CBC Davisville will be that of providing storage and preservation facilities for advanced bases and mobilization stocks; to provide mobilization facilities to support the Naval Construction Force — the Seabees — and, to perform additional tasks as assigned It is planned that actions associated with achieving this new mission status will be completed in June 1975.