

MOTCO Floating Security Barrier Concord Naval Weapons Station, CA

Ben C. Gerwick, Inc. was retained by Adesta, LLC to design a mooring system for installation of a floating Yodock security barrier at the Military Ocean Terminal at Concord (MOTCO). The barrier, which is approximately 2000 ft long, consists of a single line of interconnected Yodock Waterfront Security Barrier Modules, forming a line of demarcation around vessels berthed at berths 3 and 4 of Pier 2 and Pier 3. The mooring system was designed for expected maximum vessel impact loads on the barriers and forces resulting from other threat scenarios.

As a basis for the detailed design, a hydrographic study, including assessment of water level variations, wind speeds, wind-generated waves, wake from passing vessels as well as tidal currents and vessel-generated currents was carried out. The mooring system utilizes 2-10 ton stockless anchors, 5 ft ϕ \times 8' cylindrical buoys, chain, concrete sinker blocks, and specially



Aerial view of the Military Ocean Terminal at Concord with floating security barrier superimposed.

developed clamps for attachment of the inshore ends to the piles of the existing pier.



Munitions vessel pierside at MOTCO.

Services Performed:

- Site Inspection
- Meteo-marine study
- Detailed Design

Year of Completion: 2004

Construction Cost: \$1M

Client: Adesta, LLC