CVN Dry Dock Floor Repairs

Technologies to manage risk for infrastructure

Over 1150 feet long by 180 feet wide by 60 feet deep, Dry Dock 6 is one of the Navy's largest dry docks.

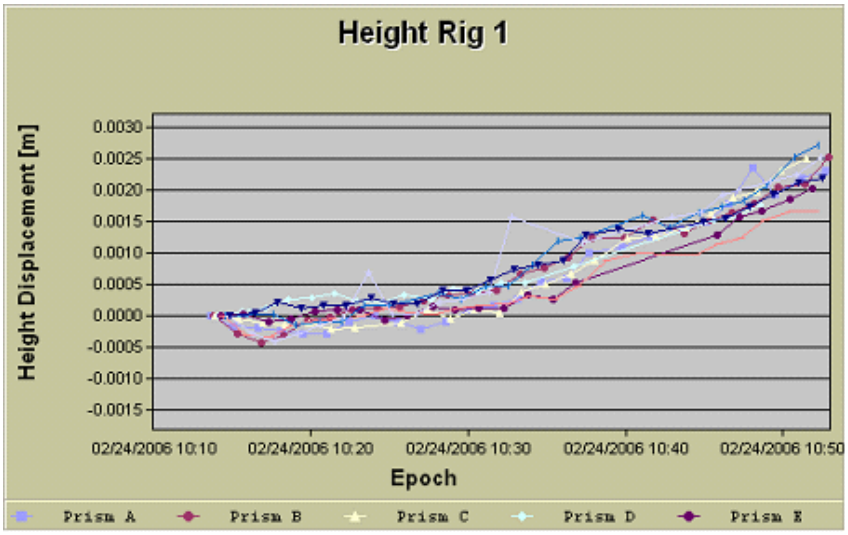
Geocomp Corporation was engaged by the United States Navy to assist in the foundation rehabilitation of Dry Dock 6 located in the Puget Sound Naval Shipyard. The foundation of this structure had been severely distorted due to heavy use and repeated dewatering of the soil sub-structure. The rehabilitation comprised of compaction grouting at 500 discrete locations.

Being one of the few naval dry docks with the capacity to service the Navy's largest vessels, Dry Dock 6 required a precise monitoring system to prevent stressing of the large monolith floor slab during repairs. The Navy specified a system that would allow detection of real-time vertical deflections of the dry dock floor at each grouting location to 0.05 of an inch (1.3mm).

Geocomp provided a complete system that used radio-controlled automated survey equipment to continuously monitor multiple points around each grouting location.

The readings were graphed real-time on a local laptop computer. Use of wireless technology made this system extremely flexible and straightforward to operate and setup. This was key to the contractor as it minimized disruption to the contractor's activities and allowed him to finish ahead of schedule.

This project illustrates the integration of Geocomp's specialized services and experience in monitoring and real-time data presentation to solve our client's problems with cost effective solutions.



Graph displaying vertical movement of points around grouting location during compaction grouting.