

Naval Presence

Burns & McDonnell, Navy Join Forces in California



Clockwise from left: New 150-foot control tower at Naval Air Station North Island; aerial view of Naval Base Point Loma, where Burns & McDonnell is helping replace fuel tanks at the Defense Fuel Support Point; aerial view of North Island, where Burns & McDonnell was design-build contractor for a new aircraft maintenance hangar and renovated taxiways.

The U.S. Navy has a healthy presence in California, dotting the landscape with air bases, fueling posts, and marine and shore facilities.

“Navy facilities worldwide continue to change to meet today’s ever-critical war fighting and national security missions,” says Mike Roark, Burns & McDonnell project manager. The firm’s recent projects here have involved designing a training facility and replacing a critical fueling post.

Fuel Upgrade

The Defense Fuel Support Point at Naval Base Point Loma is the fuel hub of the eastern Pacific, providing petroleum, oil and lubricants support to ships and shore units of the Third Fleet Theater of Operations, Commander Naval Air Activities Pacific, Military Sealift Command, the 11th District of the U.S. Coast Guard, the U.S. Marine Corps at MCAS Miramar, and the National Oceanographic and Atmospheric Administration.

Beginning in 2000, officials identified leaks coming from a handful of Point Loma’s storage tanks. The facility infrastructure has an average age of nearly 75 years. Burns & McDonnell is designing a solution that replaces the current combination of nearly 30 underground and aboveground tanks with 10 larger, primary-aboveground tanks, each holding 100,000 barrels of fuel.

“The tanks will be designed with secondary leak and spill containment beneath and around the tanks,” says Jeff Seib, project manager. “We will be using technology that wasn’t available when the original tanks were installed.”

To make maintenance and repair easier, engineers are designing most of the piping at the fuel farm to run aboveground. For those instances when piping travels underground, designs incorporated piping with provisions for leak monitoring and containment. The project will begin construction in 2007.

The Island

Fuel from Point Loma is pumped to nearby North Island Naval Air Station, recently fitted with a new aircraft maintenance hangar, air traffic control tower and renovated taxiways.

Burns & McDonnell was the design-build contractor for that \$24.2 million job. The firm designed a 45,000-square-foot hangar for washing and maintaining C-40 passenger and cargo aircraft. The design includes a fire-retardant aqueous film forming foam sprayed from nozzles on the floor instead of from above to minimize potential damage to aircraft.

The existing 90-foot air traffic control tower was replaced with a 150-foot tower. Burns & McDonnell performed 3-D shadow studies to show Navy air traffic controllers what they would see from the new tower.

China Lake

Although far removed from Southern California, the China Lake Naval Weapons Center in Central California is equally important. Burns & McDonnell recently wrapped up a job consolidating several laboratories and other facilities into three cast-in-place concrete buildings totaling 31,000 square feet.

Weapons for the Navy and Marines are developed and tested at China Lake. The

buildings needed to be sturdy to reflect the work going on inside.

“In some cases, the people doing the work are not even in the room,” says Ross Pritchard, project manager. “They are outside controlling what goes on inside through the use of robotics.” Some walls of the buildings are 30-inch reinforced concrete and doors are 4-inch-thick steel.

Burns & McDonnell construction services personnel paid close attention to procurement to make sure equipment and materials arrived at the remote site in a timely fashion. Finding an available workforce was also challenging.

“We needed to find people to come a long way to work in the desert heat,” Pritchard says. “It was a challenge, but we found a way to make it work.”

For more information, contact Mike Roark, (816) 822-3190.

All for the Navy

Other projects Burns & McDonnell has done for the Navy in California include:

- **Naval Postgraduate School addition**
Monterey
- **Submarine Support Facility**
San Diego
- **Operational Training Center**
Twentynine Palms
- **Seabee Training Facility**
Port Hueneme
- **T-10 Test Cell**
Naval Air Station Lemoore
- **Fuel Storage and Distribution System**
Miramar