

Lab News Filename: MANTL High Bay

*Reviewers: George Lasche, John Didlake, **Jill Hruby** (director)*

Photos: yes, one

Sandia's Micro Terminal

By Patti Koning

A year ago the High Bay in Building 942 on the California Site, in the group of buildings known as the Micro and Nano Technologies Laboratory (MANTL), faced an uncertain future.

The building's interior was demolished in preparation to become facility for LIGA (a lithography, electroplating, and molding technique). When the LIGA project was cancelled abruptly, the space lay empty for quite some time.

Early last year, John Didlake (8229) began looking at the space for Work for Others (WFO) projects, such as SNIFFER and the Explosives Detections System (EDS). Then, in June, George Lasche (6418) won funding from DNDO for an in-transit radiation detection project that would require a lot of space.

George needed to load and unload up to eight 40-foot shipping containers for a total of eight round trip journeys from Oakland, CA, to Honolulu. Originally, he considered renting space close to the Port of Oakland, which is what is done in Hawaii.

John saw a perfect fit between the empty building and George's containers. The space is unique in that it is indoors with a large capacity, in an unclassified area, and close to a major port.

"This would be a difficult project to do outside in someone else's parking lot," says John. "We have the space to accommodate the containers and are located 30 minutes from Oakland."

In about July of 2006, discussions began about changing the purpose of the MANTL High Bay into Sandia California Container Terminal (SCCT). At that point the building had no electricity and mothballed cranes with only a 6-ton capacity, which is only adequate to lift empty containers.

John describes the process of transforming the SCCT into a port of call as a "just in time" endeavor. The electricity was restored on a Saturday, the retrofitted 10-ton cranes were certified on a Monday, and container assemblies began on a Tuesday.

With a lot of coordination and teamwork led by Scott Keith (85141), Lynn McClellan (8523), Terry Spraggins (85233), Grace Miranda (85233), and the receiving staff, George was able to hit his October 6, 2006, deadline for the first shipment. The project has been extended to at least two more shipments beyond the original eight.

Nicholas Mascarenhas (8132) has a neutron scatter project funded by the Department of Homeland Security (DHS) that will be on the later shipments. John is hopeful DHS will continue using the SCCT for container research projects.

The irony of a facility filled with 40-foot shipping containers in a site known for micro- and nano-scale work is not lost on John.

"Actually, we are 1.8×10^{-6} the size of the Port of Singapore," he says. "So we really are a micro terminal in comparison with a real port."

Photo: At the Sandia California Container terminal, a shipping container is loaded onto a truck chassis for transport to the Port of Oakland. (credit Randy Wong)

