FRCSW Welcomes New NPSL Calibration Lab

FRCSW Commanding Officer Capt. Craig Owen and AECON Program Manager Marcel Ruegg get a hand from FRCSW Energy Program Manager Sarah Tuley as they cut the ribbon Nov. 8 to open the new calibration laboratory in Building 379 while FRCSW Executive Officer Capt. Anthony Jaramillo looks on. The energy-efficient facility, operated by the Navy Primary Standards Laboratory, will save more than $100,000 annually in utilities costs. (U.S. Navy Photo)

NAVAL AIR STATION NORTH ISLAND - In a move that will improve service to the fleet and garnish considerable energy savings, the Navy Primary Standards Laboratory (NPSL) opened its new 2,000 square-foot calibration laboratory Nov. 8 in Building 379 aboard Fleet Readiness Center Southwest (FRCSW).

FRCSW Commanding Officer Capt. Craig Owen led a ribbon cutting ceremony to mark the lab's relocation from Building 66, where it had operated for almost 50 years.

The NPSL is the Navy's highest level echelon for metrology calibration (the science of measurements) and provides technical assistance and training to fleet and shore metrology and calibration program personnel.

Laboratory manager Marcio Chinn said that Naval Air Systems Command (NAVAIR) provided new equipment for the lab that will be used in laminar (liquid and gas) flow calibration.

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Liquid flow calibration is used to test turbine flow meters found throughout the Navy. In the fleet, they are typically used to transfer jet fuel and water from supply ships to aircraft carriers.

“We verify that these systems are running properly,” Chinn said. “These meters measure fluid quantity and are very similar to a gas pump when pumping gas into a car: They show how many gallons are pumped.”

Gas flow calibration tests meters that measure aircraft cabin pressure, breathing apparatus in oxygen masks, or how much air is going through an oxygen tank, and nitrogen from fuel pumps.

Chinn said meters that measure wind speed on ships are calibrated using a closed-loop wind tunnel.

In addition, he said the meters are also used “… on HVAC systems and by safety personnel throughout the Navy to monitor proper circulation of cleaning hoods ventilation and air circulation throughout the ship.”

Prior to moving to the new location, the six-member lab staff endured continual interruptions to their work that were caused by building maintenance and repair calls.

“Our former building was degrading to the point that we had two months of down time per year the past two fiscal years,” Chinn noted.

Furthermore, he said that the lab had to rent its water chillers and relied on base supplied air.

“We were wasting 20 gallons of water per minute for eight hours a day, five days a week. Now, we are recirculating that water instead of it being poured down the drain.”

Because the new lab is supported by its own high-efficiency chiller and advanced compressors, work production may resume unhindered and service expanded with substantial operating savings.

“Non-utility savings will be around $450,000 per year and for utilities savings, around $100,000 per year,” said FRCSW energy program manager Sarah Tuley.

Tuley said that the $2 million lab renovation was one project of a larger, $24 million plan targeting energy efficiencies throughout FRCSW buildings. Energy savings will pay for the improvements.

“This will entail lighting and lighting upgrades; lighting controls and LEDs, energy conservation measures and decentralization of compressed air in 19 of our buildings. An

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HVAC retrofit in Building 463, water conservation measures that include cooling tower upgrades in three different buildings, and wash rack systems in the paint complex will also be part of the contract," she said.

FRCSW is also the parent command to two other calibration laboratories: one in Okinawa and the other in Iwakuni, Japan.