



NAVFAC HAWAII PUBLIC AFFAIRS INTERNAL NEWSGRAM
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Newsgram 5: Solar Hot Water Installation Project at JBPHH

The solar hot water installation project for nine buildings on Joint Base Pearl Harbor-Hickam (JBPHH) was awarded July 2012 for \$2,372,554 by Naval Facilities Engineering Command (NAVFAC) Hawaii to Raass Brothers Construction is expected to be completed and fully operational in August 2013.

“This project has gone relatively smoothly,” said Construction Manager Dennis Djou, NAVFAC Hawaii Facilities Engineering and Acquisition Division. “It is spread out over nine locations across both the Air Force and Navy sides of the base. Even though the work is similar for each location, there are significant nuances for panel and water heater installation at each building.”

Solar heaters are usually constructed for buildings with requirements for large amounts of hot water and have roofs that receive consistent sunshine. Each system is made up of a bank of multiple panels. Water from the system is circulated through each panel’s internal waterways so that the heat is transferred from the hot panel to the ambient water. As the water circulates from panel to panel the water gets hotter.

Solar heaters reduce the amount of energy needed to keep a building’s water supply hot. All of the systems installed for this project have also included insulated hot water tanks which keep the water warm at night.

In a typical building, a boiler is used to heat water for occupant use. Boilers use a lot of electricity because they have to heat water from ambient or room temperature. Solar panels pre-heat the water, and in most cases, transfer enough heat to the water that the boiler never turns on. This is a real energy savings to the Navy and the water user still receives hot water when needed.

“Similar to our own homes, a significant amount of energy costs goes into the heating of water,” said Djou. “The ability to harness the sun’s energy to reduce the amount of cost to heat our water only makes sense, especially here at JBPHH where we have sunny conditions most of the time.”

(more)

2-2-2-2 Solar Hot Water Heater Installation Project at JBPHH

Buildings that are part of this project include:

- Visitors Quarters – Bldg. 920 (Hickam) – 12 solar panels/800 gallon hot water tank.
- Visitors Quarters – Bldg. 1168 (Hickam) – 14 solar panels/900 gallon hot water tank.
- Bowling Alley – Bldg. 1891 (Hickam) – 7 solar panels/462 gallon hot water tank.
- Swimming Pool – Bldg. 1124 (Hickam) – 4 solar panels/305 gallon hot water tank.
- BX Bldg. 1250 (Hickam) – 16 solar panels/1,080 gallon hot water tank.
- Carport at Parking Lot at Bldg. 1488 (Pearl) – 24 solar panels.
- Quarters Bldg. 1335A (Pearl) – 27 solar panels/1,650 gallon hot water tank.
- Bachelors Quarters Bldg. 1497 (Pearl) – 32 solar panels/1,950 gallon hot water tank.
- Bachelors Quarters Bldg. 1368 (Pearl) – 27 solar panels/1,650 gallon hot water tank.

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130429-N-OF713-003 JBPHH (Apr. 29, 2013) On Apr. 29, employees of Raass Brothers Construction installed 14 solar panels on the roof of Visitors Quarters Bldg. 1168. This building is one of nine that were included in the solar hot water installation contract awarded to the contractor for work on Joint Base Pearl Harbor-Hickam. (U.S. Navy photo by Denise Emsley, NAVFAC Hawaii Public Affairs Officer/Released)



130429-N-OF713-012 JBPHH (Apr. 29, 2013) On Apr. 29, employees of Raass Brothers Construction installed 14 solar panels on the roof of Visitors Quarters Bldg. 1168. This building is one of nine that were included in the solar hot water installation contract awarded to the contractor for work on Joint Base Pearl Harbor-Hickam. (U.S. Navy photo by Denise Emsley, NAVFAC Hawaii Public Affairs Officer/Released)



130429-N-OF713-013 JBPHH (Apr. 29, 2013) On Apr. 29, employees of Raass Brothers Construction installed 14 solar panels on the roof of Visitors Quarters Bldg. 1168. This building is one of nine that were included in the solar hot water installation contract awarded to the contractor for work on Joint Base Pearl Harbor-Hickam. (U.S. Navy photo by Denise Emsley, NAVFAC Hawaii Public Affairs Officer/Released)

For information about NAVFAC Hawaii, visit the command's website at www.navfac.navy.mil or call Denise Emsley, Public Affairs Officer, at 808-471-7300 (denise.emsley@navy.mil). Become a Fan at www.facebook.com/navfac and follow us at www.twitter.com/navfac, or visit our Photostream on Flickr at <http://www.flickr.com/photos/navfac>.