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First solar wall in PACAF, Alaska performing well

ELMENDORF AIR FORCE BASE, Alaska -- In November 2008, Elmendorf was the location for Alaska and Pacific Air Forces to install solar walls. Two of these walls hang on the outside of the 3rd Logistics Readiness Squadron, so far they have saved Elmendorf $15,000 in energy cost. (U.S. Air Force photo/Airman 1st Class Christopher Gross)

by Airman 1st Class Christopher Gross
3rd Wing Public Affairs

7/23/2009 - **ELMENDORF AIR FORCE BASE, Alaska** -- In November 2008, Alaska and Pacific Air Forces installed their first solar wall here, and ever since then it has held up to expectations.

Francis Sheridan, resource efficiency manager, was responsible for brainstorming the idea to install a solar wall as a way to save the Air Force money.

"So far, we think it's working pretty well," said Mr. Sheridan.

The walls, which are installed on the west and east sides of the 3rd Logistics Readiness Squadron, have saved the base $15,000 in energy bills so far.

"It is a passive solar heating system, said Mr. Sheradin, explaining how the solar wall works. "It's a pre-heat for our outside air. It's a perforated piece of sheet metal that hangs outside in ideal situations."

He said once the air is ventilated inside the building, it is already 10 degrees or more warmer than the outside temperature.

This means less energy is being used to heat the air, which saves money, he said.

Even though the solar wall is an efficient money saver, it is not all that new. The solar wall was developed after much research and several prototypes done by John Hollick, president of the Conserval Engineering Inc., located in Toronto, Canada.

"It actually works better on cold winter days when there's snow on the ground," said Mr. Hollick. "The snow will reflect up to 50 percent more sunlight. It is ideally suited for northern latitudes."

"Over one thousand of these systems are out there. We have them in about 30 countries and most took place in the last six years," said Mr. Hollick.

Mr. Hollick said that the solar wall wasn't initially a big hit when it was first invented because fuel cost was still reasonably low. However, since the high rise in fuel costs during the past decade, ways to conserve energy in some areas has become a top priority.

"The people who put them in seem to really like them. I think it's the fact there's no maintenance with it, Mr. Hollick said. It does provide a lot of energy on a sunny day it should heat the air between 30 to 40 degrees."

As far as for its durability, Mr. Hollick said, "The solar panel itself should last as long as the building because it has no moving parts. It's all metal construction."

So far, about 10 of the solar wall structures have been installed at eight Air Force bases in the past six years and future plans for more are under way.