

Christmas Valley Air Force Station

The Christmas Valley Air Force Station, established in the late Cold War era, was a 2,622-acre site located 16 miles east of Christmas Valley. The facility was the transmitting unit of a radar defense system and was composed of 216 antennae that range from 35 to 135 feet high.

The station was the product of research in an over-the-horizon backscatter radar (OTH-B) system that had been developed in the early 1970s at the Air Force Rome Air Development Center, a research center in New York. The OTH-B system was to provide long-range (up to 3,300 km) radar coverage for U.S. air defense. By bouncing radar beams off the atmosphere, the system was designed to detect inbound missiles or bombers launched by hostile forces.

In 1983, due to its remote location and electromagnetically quiet characteristics, the Christmas Valley site was selected to function as the transmitter station for the West Coast Sector of the radar system, with the associated receiver located in Tule Lake, California. The 777th Radar Squadron was to operate the sector, based out of Mountain Home Air Force Base in Idaho.

After consultations with local residents on size, facilities, and environmental impact—determined to be “not significant”—construction of the Christmas Valley facility was approved. General Electric Aerospace eventually spent around \$275 million on the site’s construction.

The completed transmitter in Oregon and the receiver in California were turned over to the Department of Defense in late 1990 to test and evaluate. The end of the Cold War, however, ensured that the system would never enter full service. The local community was disappointed at the site’s reduced status. Site construction and maintenance had provided local jobs, and most military personnel and their families left the area.

The Christmas Valley facility officially entered "warm-storage" in 1997, which meant the station could become operational within a 24-month recall period. In 2002, the facility entered "cold-storage," when most equipment was removed from the facility and stored off-site. Three years later, Christmas Valley Air Force Station was officially closed.

The Burns Paiute and Klamath tribes made requests for the land, but the Bureau of Land Management did not pursue them. Instead, in cooperation with the State of Oregon, the BLM explored joint use of the site for renewable energy generation and emergency management facilities. One area of the site, now divided into two sections, is administered by the Oregon National Guard and has become a storage area for emergency management supplies.

The high-capacity transmission lines originally installed for the radar transmitter have made the site an attractive option for renewable energy generation. With support from the Christmas Valley Chamber of Commerce, the state-run Oregon Solutions project earmarked the site for development in 2010. As of 2011, construction of solar and wind generators remained in the planning stage.

Written by [Nick Blackburn](#)

Further Reading:

Chu, Keith. "If a Disaster Hits Oregon, Christmas Valley Could be a Refuge." *The Bend Bulletin*, March 15, 2009. <http://www.bendbulletin.com/apps/pbcs.dll/article?AID=/20090315/NEWS0107/903150427/1041>.

Winkler, David F. *Searching the Skies: the Legacy of the United States Cold War Defense Radar Program*. Prepared for United States Air Force Headquarters Air Combat Command. Langley AFB, Va.: Headquarters Air Combat Command, 1997.

Copyright © 2008-2014 Portland State University