Completion Date	2000
Cost	$3,500,000
Project Type	Weather Forecast Office
Client	National Weather Service, National Oceanic and Atmospheric Agency

National Weather Service Forecast Office Complex

Tiyan, Guam, USA

The Design-Build facility consists of a new 7,000SF Weather Forecast Office, 400SF Upper Air Inflation Building, and support facilities on a 3.2 acre site. This project was designed under the design-build process, in conjunction with Black Construction Corp. of Guam. DPI worked closely with the many representatives from the using agencies to successfully meet the complex technical requirements presented by the project.

This was a formidable challenge because of the difficult functional and environmental requirements of the new project. As the hub of the NWS in its region, the Guam facility is required to operate on a 24-hour a day / 365-day a year schedule. The Weather Forecast Office houses sensitive electronic systems and complex communication equipment necessary to fulfill its mission of providing valuable weather data for the region.

Because of its location and critical mission, the facility is required to withstand 194 mile-per-hour typhoon winds and accompanying flying debris. The facility is self-sufficient, with a 7,000-gallon potable water tank and diesel electrical generators. The design also needed to address high humidity and salt corrosion problems.

DPI looked at the various opportunities to provide sustainable features such as:

- Lowered Maintenance
- Energy Efficiency and use of Alternate Energy Resources including the appropriate use of Daylight.
- Waste Reduction: Using Products with Recycled Materials and Manufacturers with Reclamation Programs
- Optimizing Indoor Environmental Quality

Carl Ian Graham of Steven Winter Associates Inc. (SWA) served as the energy and lighting consultant for the project. Their goal was to formulate appropriate strategies to conserve energy and optimize the use of daylight. SWA made analyses of the building envelope to recommend appropriate measures to be included in the design. Utilizing DOE 2.1E Software, SWA created a computer-generated benchmark model of typical energy use in previous NWS facilities. This benchmark was used in analyzing various design and material specification options.

Awards EPA Federal Facilities Clean Energy Award & Federal Energy Showcase Award