

**28th Annual Secretary of the Army
Energy and Water Management Award**
In Recognition of Accomplishments during Fiscal Year 2005

List of Winners

Type Award - Small Group

- Fort Gordon, Georgia - *Energy Efficiency/Energy Management* - (Mr. Michael McTier, Mr. Kenneth Coleman, Mr. Wayne Griner, and Mr. James Pavliscsak)
- Fort Knox, Kentucky – *Renewable Energy/Alternative Energy* – (Mr. Gary Meredith, Mr. Frank Baker, Mr. Steve Fries and Mr. Patrick Walsh)
- Fort Sam Houston Texas – *Water Conservation* - (Mr. Gene A. Rodriguez, Mr. Pepe Calderon, and Mr. Robert L. Jay)
- New Jersey Army National Guard - *Renewable Energy/Alternative Energy* – (Mr. Thomas G. Comyack and Mr. John L. Hastings)
- Picatinny Arsenal, New Jersey – *Energy Efficiency/Energy Management* - (Mr. Richard Havrisko, Ms. Sandy Chisholm, Mr. Edward Brice, Mr. Thomas Struble, Mr. Robert Smith)
- Washington Army National Guard - *Energy Efficiency/Energy Management* – (Mr. Jeff Baker, Mr. Roger Christie, Mr. John Lindstrom, and Mr. John Havens, Jr.)

Type Award - Individual:

- Mr. Morgan Benson – Dugway Proving Ground, Utah - *Energy Efficiency/Energy Management*
- Mr. John D. Ghim – Yongsan Garrison, Korea Region Office – *Water Conservation*
- Mr. Jeff Seaton – Arizona Army National Guard - *Energy Efficiency/Energy Management*

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Award Summaries

Type Award: Small Group

Fort Knox, Kentucky

(Mr. Gary Meredith, Mr. Frank Baker, Mr. Steve Fries and Mr. Patrick Walsh)

Category- Renewable Energy/Alternative Energy

Cost Avoidance: \$807,000 - 102,000 Million British Thermal Units

The energy focus, experiences and leadership the Fort Knox Energy Team, consisting of Mr. Gary Meredith, Mr. Frank Baker, Mr. Steve Fries and Mr. Patrick Walsh, provided the necessary insight to focus on the life cycle cost of existing facilities turning an unfunded problem into an opportunity for savings. The Fort Knox Disney troop barracks complex, named in honor of GEN Paul Disney, a World War II veteran and the first Armor School commander, was built in the 1960's became the focal point for a utilities savings opportunity. The Energy Team entered in to an agreement for a Utility Energy Service Contract to fund the installation of Ground Coupled Heat Pumps in the Fort Knox Disney troop barracks complex. The project replaced the inefficient centralized high-pressure, high-temperature hot water system and aging underground hot water distribution system servicing 38 facilities and totaling 811,435 square feet. Seventy percent of the existing systems were replaced with geothermal heat pumps, taking advantage of renewable geothermal energy. The buildings were modernized with ventilation systems installed in the barracks facilities, improving the indoor air quality. All of the buildings were integrated into a wireless system for control and energy management. This energy conservation project helped the Army save more than 102,000 Million British Thermal Units of energy with a cost avoidance of \$807,000 in FY 05.

Fort Gordon, Georgia

(Mr. James Pavliscsak, Mr. Michael McTier, Mr. Kenneth Coleman and Mr. Wayne Griner)

Category - Energy Efficiency/Energy Management

Cost Avoidance: \$303,000 - 34,900 Million British Thermal Units

Mr. James Pavliscsak of Fort Gordon and Mr. Michael McTier, Mr. Kenneth Coleman and Mr. Wayne Griner of Dorsett's Inc have provided expertise and conscientious efforts to ensure the Utility Management & Control System (UMCS) functions to control energy cost on Fort Gordon at or near peak efficiency. The UMCS provides the "eyes" to facilitate the decision making process to efficiently and effectively utilize energy

resources. These individuals consistently ensured the system was functioning at a high level of efficiency. The team spent many hours resolving issues of performance resulting in a reduction in consumption of electricity, natural gas, propane and fuel oil. Through their efforts, the Army's consumption of energy resources was reduced by 34,900 Million British Thermal Units with a cost avoidance of \$303,000 in FY 05.

Fort Sam Houston Texas

(Mr. Gene A. Rodriguez, Mr. Pepe Calderon, and Mr. Robert L. Jay)

Category - Water Conservation

Cost Avoidance: \$64,100 – 3,858,700 Gallons

The Fort Sam Houston Energy Conservation Team, consisting of Mr. Gene A. Rodriguez, Mr. Pepe Calderon, and Mr. Robert L. Jay, implemented a water conservation project. The project consists of an ionic side stream filtration system that reduces water consumption and eliminates chemical costs at eleven cooling towers throughout Fort Sam Houston. The system senses and controls the conductivity of the tower water without chemicals, thus eliminating make-up water and sewer charges associated with blow-down. The use of ion generators eliminates the need for blowdowns and only periodic "back-washing" of the system filter is required, which uses approximately 5% of the water required for blow-down. These improvements have saved the Army almost 4 million gallons of water with a cost avoidance of \$64,100 in FY 05.

New Jersey Army National Guard

(Mr. Thomas G. Comyack and Mr. John L. Hastings)

Category - Renewable Energy/Alternative Energy

Cost Avoidance: \$69,000 - 390 Million British Thermal Units

Mr. Thomas G. Comyack and Mr. John L. Hastings championed the use of renewable energy to assist the New Jersey Army National Guard in complying with the requirements of Executive Order 13123. Their persistence spanned over two years in a successful effort to acquire funding and buy-in from leadership for the renewable energy potential for their department and the environment. In June 2005, the New Jersey Army National Guard completed the first integrated Photovoltaic project located on Fort Dix, New Jersey for a 130,000 square foot facility. To date, the New Jersey Army National Guard is the only New Jersey state government agency that has taken the lead in using this type renewable energy. This project reduced energy consumption for the Army by 390 Million British Thermal Units with a cost avoidance of \$69,000 in FY 05.

Picatinny Arsenal, New Jersey

(Mr. Richard Havrisko, Ms. Sandy Chisholm, Mr. Edward Brice, Mr. Thomas Struble, Mr. Robert Smith)

Category – Energy Efficiency/Energy Management

Cost Avoidance: \$210,500 – 30,200 Million British Thermal Units

Mr. Richard Havrisko, Ms. Sandy Chisholm, Mr. Edward Brice, Mr. Thomas Struble, and Mr. Robert Smith were the driving forces behind the Steam Decentralization Project on Picatinny Arsenal. Their persistence and leadership ensured the \$41.3 million project was completed in Jun 05. The basic scope of the project was to design and install a distributed heating system at Picatinny Arsenal to replace the aging central steam plant servicing 275 buildings and 407 pieces of equipment. The new system required installation of an arsenal-wide natural gas distribution system to supply the new equipment. It also required a major expansion and upgrade of the energy management and control system to allow remote monitoring and operation of the new system thereby realizing significant labor savings. A wide range of available heating technologies were applied, including steam and hydronic boilers, low-temperature infra-red heating units, furnaces, unit heaters, electric heat, and propane-to-gas conversions. These efforts helped save energy consumption for the Army by 30,200 Million British Thermal Units with a cost avoidance of \$210,500 in FY 05.

Washington Army National Guard

(Mr. Jeff Baker, Mr. Roger Christie, Mr. John Lindstrom and Mr. John Havens, Jr.)

Category - Energy Efficiency/Energy Management

Cost Avoidance: \$107,100 - 17,200 Million British Thermal Units

The Washington Army National Guard energy program, lead by Mr. Jeff Baker, Mr. Roger Christie, Mr. John Lindstrom and Mr. John Havens, Jr. was able to lower statewide energy consumption and cost by approximately 20% compared to FY04. Through their efforts, several different types of projects were implemented, all with energy conservation as the main goal. These included boiler retrofits from single-boiler systems to smaller more efficient staged multi-boiler systems, energy management control system installations, several lighting retrofit projects, and re-commissioning for more effective use of outside air in several facilities. As a direct result of their efforts, the Army reduced energy consumption by 17,200 Million British Thermal Units with a cost avoidance of \$107,100 in FY 05.

Type Award: Individual

Mr. Morgan Benson

Dugway Proving Ground, Utah

Category - Energy Efficiency/Energy Management

Cost Avoidance: \$36,400 – 89,000,000 Gallons

Mr. Morgan Benson has developed and implemented a highly successful energy and water management program at Dugway Proving Ground. He developed projects to continue the installation's energy and water reduction trend. Mr. Benson's has been a champion for water conservation efforts on Dugway Proving Ground. With his guidance, the installation decreased water irrigation and implemented an improved irrigation schedule that maximized the efficient use of water during the cooler evening hours. This change alone resulted in a 28.1% reduction in water consumption in just one year, and follows a five year trend of steadily reducing water consumption since the beginning of water tracking in fiscal year 2000. As a direct result of Mr. Benson's dedication, initiative and leadership, water consumption by the Army was reduced by 89 million gallons with a cost avoidance of \$36,400 in FY 05.

Mr. John D. Ghim

Yongsan Garrison, Korea Region Office

Category - Water Conservation

Cost Avoidance: \$69,700 – 83,000,000 Gallons

Mr. Ghim was instrumental in convincing Korean government officials to implement a water line upgrade project which improved water service and quality for 300 families at no cost to the US Government. Realizing problematic issues with other asbestos lined waterline breaks, Mr. Ghim implemented contract packages to replace the old lines with PVC, reducing water line breaks by 80%. Mr. Ghim designed and coordinated a project that increased the raw water intake use by 30% by upgrading the pumps at the intake towers and lowering the requirement for city supplied process water. Other programs have reduced water consumption by 22%. These other initiatives include: installation of water conserving shower heads and low volume flush valves in the barracks and gymnasium; installation of waterless urinals; implementation of boiler make up water inspections and a water line leak detection program; implementation of a community awareness program to support water conservation. Because of Mr. Ghim's efforts, dedication and leadership, the Army saved over 83 million gallons of water with a cost avoidance of \$69,700 in FY05.

Mr. Jeff Seaton

Arizona Army National Guard

Category - Energy Efficiency/Energy Management

Cost Avoidance: \$133,200 - 4,300 Million British Thermal Units

Mr. Jeff Seaton, the Arizona Army National Guard Energy Manager implemented an intensive effort of building retrocommissioning and systems optimization as part of the states' energy management program. His dedication and leadership facilitated the work with several federal and state agencies to promote building retrocommissioning throughout the State of Arizona and into the federal community. One specific project, the retro-commissioning and optimization of the Western Army Aviation Training Site building reduced operational costs and energy consumption for the flight simulator facility in 2005. This effort was so successful it initiated an Army National Guard -wide multi-year retrocommissioning effort. As a result of Mr. Seaton's efforts, dedication and leadership, the Army saved over 4,300 Million British Thermal Units of energy with a cost avoidance of \$133,200 in FY 05.