

INFORMATION SHEET

OKLAHOMA CITY AIR LOGISTICS CENTER

TINKER AIR FORCE BASE, OKLAHOMA



ENVIRONMENTAL TRAINING

An estimated 50 percent of the federal workforce will be eligible for retirement in the next 7 years. "Workforce reshaping" at Tinker Air Force Base is a proactive approach to offer structured and creative training for future as well as current workers.

To train technicians, engineers, and management to comply with environmental laws, Environmental Management has designed and is using varied training formats, including:

- Traditional classroom settings
- Multimedia compact discs (CDs) and presentations
- Interactive training online
- "Just-in-time" training at multimedia workstations
- Three-dimensional training in a theater setting

Environmental Management also funds the computers, servers, hardware, and software used to train and update courses as regulations change.

CLASSROOM TRAINING

Shop workers, shop supervisors, Environmental Management personnel, and managers receive classroom training to meet federal require-



ments. For example, all generators of hazardous waste receive annual training on the proper techniques for storing and managing these substances.

Although classroom training is a traditional approach when hands-on training is needed, it is costly and takes personnel from their work-sites. Therefore, the other formats described here are being explored and put to use.

ONLINE TRAINING

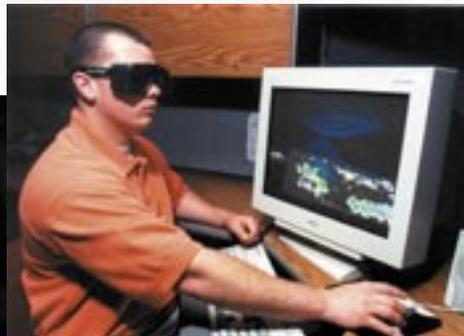
Online web-based training helps workers learn independently. Self-paced modules include Clean Air Act requirements, and solid waste management with a focus on recycling and pollution prevention. The interactive modules use graphics and animation to keep up student interest. An online exam records student progress and is available by database to administrators.



INNOVATIVE TRAINING

Tinker's innovative training methods improve learning, reduce errors, and depict maintenance procedures more accurately.

Multimedia laptop computers deliver two-dimensional interactive content directly to the shop floor.



A prototype theatre for stereoscopic three-dimensional (3D) training seats 10 people. Viewers see stereo images through Liquid Crystal shutter glasses. The images and interactive format are rich in sound effects and animation.

The Environmental Management (EM) Directorate, created in 1985, manages environmental issues at Tinker.

For more information, contact:

OC-ALC/EM, 7701 Arnold Street, Suite 204, Tinker AFB, OK 73145-9100

(Tel) 405.734.4111 (Fax) 405.734.4210

<http://www-ext.tinker.af.mil/em>

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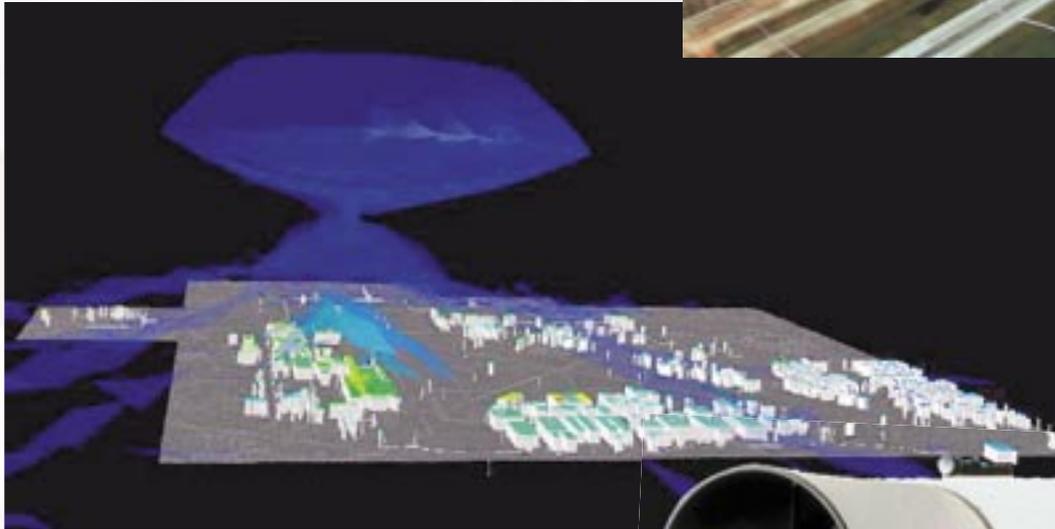
AIR QUALITY

Tinker Air Force Base manages more than 3,000 air emission sources. Environmental Management collects and analyzes annual emission data from these sources and makes sure they comply with the very detailed requirements of the Clean Air Act.

TECHNICAL ADVANCES AT TINKER

Three-Dimensional Modeling

Environmental Management is the first Air Force base in the Department of Defense to model air emissions in three dimensions to protect the public and the environment. Three-dimensional (3D) modeling is very complex because of air pollution dispersion and dynamic atmospheric changes. Tinker combines Geographic Information System technology and atmospheric modeling to view atmospheric pollution in stereoscopic 3D. Through OpenGL technology, base buildings and contaminant plumes appear as virtual emissions. The tool lets scientists evaluate fence line pollutant concentrations for existing sources and "what-if" scenarios.



Geographic Information System

The Tinker Geographic Information System (GIS) tracks and manages more than 1,000 regulated air emission sources. The system links to an air database and overlays a digitally correct map of the emission sources. The information is used for predictive modeling, planning, and management of air emission source data.



Real-Time Tunable Lasers

Tinker joined a coalition to evaluate real-time tunable lasers for testing air emissions. The laser diode system is also being used in medical research for diagnosing illness through breath analysis.



Open-Path Air Monitoring

Tinker was the first in the Department of Defense to use an open-path air monitoring system to detect air emission levels on base. This technology uses an infrared beam, which is bounced back to an analyzer that produces a read-out of the molecules found in the air.



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