

CENTER VIEWS

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE • BROOKS AFB, TEXAS VOL. 6, NO. 1 SPRING 2000



In the News

- Page 2** The hazmart, or hazardous materials, pharmacy is the heart of a base's pollution-prevention program. The Randolph Air Force Base, Texas, facility is an example of how the system works.
- Page 3** The Department of Defense's Indian and Alaska Native Policy is proving successful, thanks to the active participation of AFCEE and other Air Force organizations in the state.
- Page 5** Plenty of changes are in store for the 5th Annual Joint Services Pollution Prevention and Hazardous Waste Management Conference in August. The event, sponsored by AFCEE, is the largest conference of its type in the Department of Defense.
- Page 8** An asphalt-recycling project managed by AFCEE resulted in the recovery of hundreds of gallons of the paving material that had been dumped decades ago in a disposal area on Anderson Air Force Base, Guam. Nearly 242,000 gallons will be put to use paving public driveways, parking lots and bicycle paths.
- Page 9** Old technology from the oil drilling industry was put to effective use in a contaminated groundwater cleanup project at Travis Air Force Base, Calif.,
- Page 11** Federal legislation makes it mandatory for commanders to develop plans that will help conserve, protect and manage their bases' natural resources.
- Page 12** What do AFCEE people do in their spare time? One group helped members of a congregation fix up their church.

On the cover:

It's spring time and the blossoms of the sweet cherry trees are in bloom in Delaware. This 80-foot tall specimen in the center of the picture towers over the Old Woods section of Dover Air Force Base. (Photo courtesy Dr. Melvin Beck)

CENTERVIEWS

AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE

BROOKS AFB, TEXAS

VOL. 6, NO. 1

SPRING 2000



THE AFCEE MISSION

To provide Air Force leaders the comprehensive expertise to protect, preserve, restore, develop and sustain the nation's environmental and installation resources.

EDITORIAL STAFF

GARY M. ERICKSON, P.E.
Director

COL. SAMUEL E. GARCIA
Executive Director

MICHAEL HAWKINS
Chief, Multimedia and Public Affairs

GIL DOMINGUEZ
Editor

Center Views is published quarterly as a funded newspaper by the Multimedia and Public Affairs Division, Air Force Center for Environmental Excellence Headquarters, Brooks Air Force Base, Texas. It is an authorized publication for members of the U.S. Military services.

Contents of *Center Views* are not necessarily the official views of, or endorsed by, the U.S. government, the Department of Defense or the Department of the Air Force. Reference to any commercial product or company does not imply endorsement by the government or any of its agencies.

All pictures are U.S. Air Force photos unless otherwise noted. Readers may submit articles, photographs and artwork for publication. Material, however, will be edited to conform to standards set forth in Air Force Instruction 35-301 and the Associated Press Stylebook and Libel Manual. Suggestions and criticisms are also welcome.

Editorial office: HQ AFCEE/MSP, 3207 North Road, Bldg. 532, Brooks AFB, Texas 78235-5363; telephone (210) 536-4228 (DSN 240-4228); fax 5256; e-mail gil.dominguez@hqafcee.brooks.af.mil. Visit *Center Views* on the World Wide Web at <http://www.afcee.brooks.af.mil/MS/MSP/center/interviews.htm>

Not very long ago whenever personnel working in base shops needed materials for their jobs they would simply order the product, use as much as they needed and get rid of the rest. Unfortunately, that leftover paint, cleaning solvent or pesticide ended up becoming a hazardous waste.

But that scenario has changed completely in the past few years with the introduction of the hazardous material pharmacy concept. Now when shop people want to order an item that

who serves as hazmart project manager, works with a staff of 15, eight of whom are military personnel. A big part of their jobs is tracking the hazardous materials used by the 124 shops on base.

Lately, Tennison said, the staff has been “very busy installing AF-EMIS in the shops. We now have 25 locations – a total of 57 personal computers – that have been loaded with the software.”

Workers use the program to see what materials their shops are authorized to use, request the items, update informa-



Hazmart offers one-stop shopping for pollution prevention

By Gil Dominguez



Outside the Randolph AFB, Texas, hazmart. The facility serves as the control center for the base's pollution-prevention program.

requires special handling they have to do so through the hazmart, as the hazardous materials facility is called.

A base hazmart serves a variety of functions. It is the central receiving, storage and issuing point for all toxic products coming into or leaving the installation; it serves as a “tracking station” that keeps tabs on all such material, from purchase to disposal; and it is a clearing house for information on the different types of substances and their potential effects on the human environment.

The computer software program that makes all these functions possible is the Air Force Environmental Management Information System, or AF-EMIS, which was developed at Kelly Air Force Base, Texas, in the 1980s and is now managed by AFCEE. (For a complete story on AF-EMIS see the Winter 1999-2000 issue of *Center Views*).

The hazmart at Randolph Air Force Base, Texas, home to headquarters of the Air Education and Training Command, is probably typical of most hazmarts throughout the Air Force. Built in 1998, the facility is a neat, orderly and smoothly run operation.

Phil Tennison, a contractor employee with Research Dynamics



Environmental technician Ernest Fernandez uses a compactor to store material in metal drums before shipping off base.

Master Sgt. Valoria Brownlee, hazmart superintendent (right), and Senior Airman Jennifer Thompson, supply technician, check the labels on a can of spray paint in a hazmart storage room. (Photos by Gil Dominguez)

tion on existing authorizations and a number of other functions.

“They load the information and it goes into the review queue,” the project manager explained. “We then check to see if the request is complete. If there are no problems with the request it goes to bioenvironmental engineering, safety, and civil engineering for their review.”

The latest program upgrade, AF-EMIS version 6.0, “requires a lot more information about the process that materials are being used for,” said Tennison.

Among the data shop people must now provide include the number of personnel that will be exposed to the product, for how long and how the material will be applied.

“In the past, this information was not directly asked for; now it is required to renew authorizations,” the project manager added.

The requisition and review process may sound daunting but AFCEE officials said it is necessary to keep the mistakes of the past from recurring. And the hazmart, they suggest, is the hub that holds the base pollution-prevention wheel together.

Policy bolsters Air Force-native Alaskan relationship

The signing of the Department of Defense American Indian and Alaska Native Policy in 1998 by Secretary William Cohen put into motion the development of a working relationship between military agencies and the 227 federally recognized tribes in Alaska. The policy outlines the principles executive departments and agencies are to follow in their interaction with those tribes.

Alaska poses a unique challenge to the Air Force in particular. The service's installations there are in various stages of environmental restoration, and many are thousands of miles apart — ranging from the Canadian border to the Aleutian Islands.

Alaska is home also to more than 40 percent of the nation's tribes and covers a larger geographic area than any other state. With the exception of the Metlakatla Indian Community, there

are no reservations in the state. The five cultural groups are the Inupiat Eskimo, Yupik Eskimo, Athabascan Indian, Aleuts and Tlingit Indians.

The interest of the native peoples in what takes place on active and non-active DOD installations varies depending on the number of tribes that may be impacted. For example, an environmental project at the Murphy Dome site in interior Alaska impacts no tribe at all while work at the Kotzebue radar site in northwest Alaska affects just one tribe. On the other hand, any work done at the Cape Romanzof radar site in western Alaska has implications for four tribes in three different communities.

Air Force officials said that a critical element in the successful execution of the service's cleanup of sites in Alaska is the knowledge and understanding by the staff of the people, the communities and the cultures within which they are operating.

Last December the 11th Air Force, commanded by Lt. Gen. Thomas Case,

signed the first Tribal/Air Force Memorandum of Agreement, or MOA, with the Louden Tribal Council in Galena. The MOA outlines the formal working protocols that guide the parties in their interactions with one another. It also designates points of contact, identifies how consultation and coordination with the tribe will take place and acknowledges the tribe's sovereignty.

AFCEE, also, has had a part in enhancing communication between Alaskan native peoples and the Air Force. The center's Western Regional Environmental Office in San Francisco recently developed and signed an interagency agreement with the U.S. Environmental Protection Agency, Region 10, that enabled an Alaska native coordinator from the EPA to work full time with the 611th Air Support Group at Elmendorf Air Force Base, Alaska.

The coordinator, Sandra Borbridge, is an Alaskan native with more than 20 years of experience working with Alaska natives and tribal governments. Her focus has been on supporting the Air Force's environmental program by developing more effective means of communication with Alaska native peoples.

Assigned to the unit's environmental restoration section, Borbridge's first challenge was to identify the tribes the Air Force

needs to consult with for the various installations. She began by developing and updating community profiles that were to be part of the briefings for commanders traveling to Air Force installations throughout the state. The profiles include the background, history and location of each community as well as contact lists of tribes, municipal governments and native organizations.

The coordinator also worked with the 611th ASG community relations staff to develop a list of tribal contacts, since the Air Force must coordinate with tribes that live near the installation and also those that hunt, fish and gather wild food sources in the area.

Next, she focused on working with the existing community relations program that oversees the 10 restoration advisory boards, or RABs, in the state. Borbridge, who began attending RAB meetings with the project managers and the community relations staff, initiated the now-standard practice of making individual visits to the tribal offices in each community where the conferences are held.

Additionally, she helped plan and facilitate panels on military environmental restoration programs, community relations and DOD/tribal relations. Project managers and community relations staff served as presenters at the

forums.

Officials also note that the involvement of the 11th Air Force commander has contributed to the successful implementation of DOD's American Indian and Alaska Native Policy.

The general's initiatives have included holding a roundtable last summer to learn what was being done to date by each military commander in the state to implement the tribal policy. This was followed by a day-and-a-half-training session called "Working Effectively with American Indians and Alaska Natives," which was attended by senior commanders.

Other signs of success for the DOD initiative:

— Native liaisons within the federal government developed an interagency memorandum of understanding, signed by seven federal agencies, that has the goal of improving working relationships with Alaska natives and tribal governments; sharing information and resources where possible; and working together on training agency personnel.

The MOU is a no cost arrangement that includes the 611 ASG; the Air Force Center for Environmental Excellence Western Region; the Corps of Engineers, Alaska District; Bureau of Land Management; the Forest Service; the Environmental Protection Agency and the Minerals

Management Service. All of the agencies are represented by native liaisons.

— Under the leadership of the Alaskan Command, representatives from the various service components in Alaska have developed a draft Alaska-specific guidance for implementing the DOD American Indian and Alaska Native Policy. This guidance considers situations unique to Alaska and is intended to assist the components in approaching military and tribal relations in a consistent manner. The guidance was sent to Alaska tribes in February for review and comment as the last step before the document was finalized.

The military in Alaska is in the early stages of implementing the DOD Tribal Policy, and a great deal of work has already gone into establishing and strengthening working relationships with the tribes and with the native corporations that own the land. The military in Alaska has truly become a leader in developing mechanisms and methods to successfully implement the American Indian and Alaska Native Policy.

Sandra Borbridge and the staff of the 611th Air Support Group contributed to this report.

Annual environmental conference undergoes changes

Changes are in store for the upcoming environmental conference sponsored annually by AFCEE.

Change is even part of this year's theme: "Changing Today for a Cleaner Tomorrow."

The AFCEE-sponsored 5th Annual Joint Services Pollution Prevention and Hazardous Waste Management Conference and Exhibition takes place Aug. 21-24 in San Antonio at the Henry B. Gonzalez Convention Center.

One big change is that in the true spirit of joint-service cooperation, the Navy will for the first time be the official conference host, a role AFCEE has played in the past.

As for changes in format, technical presentations this year will come in five different "flavors." Besides the regular 20-minute oral classroom presentations, there will also be technical demonstrations, two-hour and four-hour focus discussions, and poster sessions. Also, four training sessions will be offered this year in addition to several Web-based training courses.

Technical demonstrations are designed to show the correct use of a piece of equipment – a parts washer, for example – or a process.

Concerning the focus discussions, Tamee Tennison, a conference organizer with AFCEE's Environmental Quality Directorate, said the format allows a more in-depth exploration of technical issues.

"People will have more time to talk, but it's still a structured environment" with an agenda and a facilitator, she said. "It could be one person doing the talking for the entire time or a panel."

Instead of giving a formal class presentation, however, presenters have the option of holding a poster session. The convention center provides, for a fee, the four-by-eight poster board on which presenters may display their papers and other materials throughout the conference in the exhibits area.

The resource room is not an entirely new feature. It was added last year and proved to be a big hit with conferees. The room is furnished with computers and large monitors so that attendees can try out products and services offered by AFCEE. The resource room also is available for the other military branches to feature their products and services.

As in past conferences, people who want to make any type of presentation at the conference first had to submit an abstract summarizing their topic. A joint-services panel, including a representative from the Defense Logistics Agency, conducted the abstracts review recently.

"All abstracts go through a selection process and are rated," said Miriam Ortiz, also an Environmental Quality conference organizer. "This year we refined the selection process."

She explained that abstracts were rated on three criteria. The first one is innovation; that is, whether the concept was a new approach or an enhancement of an existing system. Secondly, raters looked at the concept's applicability throughout all the military branches. The third criterion was the costs savings or risk reduction associated with the concept.

Each criterion was graded using a scale of one-to-five, with five being the highest rating.

Also new this year is the addition of a "mini" Industry Day, which will become a full-blown conference event beginning in 2001. It is being sponsored by the 311th Human Systems Wing's environmental contracting division, which provides direct contracts support to AFCEE.

The focus of Industry Day will be on helping firms get their "foot in the door," said Tennison.

Other topics to be discussed include the mentor-protégé process, Native American initiatives and awards programs. A panel consisting of both small and large firms that currently hold AFCEE contracts will conduct the question-and-answer session with business representatives. The event is intended to provide a contractor – not government – perspective on doing business with the public sector.

This year's conference also is setting the tone for going to an all-electronic meeting.

Explained Tennison: "We're trying to put into practice the principles of reducing, reusing and recycling. Over the next one or two years we're going to be doing more and more of the conference electronically. This year abstract submissions were done over the Internet and we're offering on-line registration again. Next year the *Call for Abstracts and Exhibitor Prospectus* will be distributed electronically."



Program rewards contractor that hires Indian-owned firms

Another new feature of the 2000 conference is the opening up of the exhibit area to all active-duty military personnel in uniform and current government employees. That will take place on the last day of the meeting, from 9:30 a.m. to 2 p.m. Previously, only registered conference goers could visit the exhibits.

“That’s to get more people, especially from the local bases, to see what’s available to them,” said Tennison. “We want the shop-level people and not just the program managers to come in and see what the products are, what kinds of services are available and let them talk to the exhibitors.”

The organizers recommended that anyone who would like to attend the conference or merely wants more information to go to the event’s home page at www.p2-hwmconference.com. They noted, also, that the Web site is currently being updated and suggested that people visit it on a regular basis.

Information is also available from Tennison at (210) 536-4670, DSN 240-4670; and Ortiz at (210) 536-3403, DSN 240-3403.

An AFCEE prime contractor recently received one of the first and largest monetary awards under the Defense Department’s Indian Incentive Program. It was also the first such award for an AFCEE contractor.

Jacobs Engineering Group’s award, which exceeded \$280,000, resulted from the firm’s subcontracting of two Alaska Native corporations to do work associated with the Air Force’s Operation Clean Sweep. The project involves the dismantling of remote Alaskan sites that once formed the backbone of the Defense Early Warning Line – the old DEW line of the early Cold War era.

Arctic Slope Construction, Inc., of Anchorage and NANA Development Corporation, a regional native corporation, shared in the \$5.62 million subcontracted by Jacobs for work at the Kotzebue Long-Range Radar Site located 23 miles above the Arctic Circle on Alaska’s northwest coastline.

The Kotzebue project included dismantling and removing buildings, above ground tanks, pipelines and power lines. The task also involved removing and disposing of materials containing asbestos and recycling salvageable materials. The site was then restored by replanting vegetation and regrading and stabilizing the area.

Authorized under the Appropriations Act of 1999 and with a pool of \$8 million, the Indian Incentive Program promotes opportunities for Indian firms to participate in federal contracts. The program awards prime DOD contractors a payment of five percent of the amount they subcontract to an Indian organization or Indian-owned economic enterprise.

Alvin Brown of the Brooks Small Business Office said the prime contractor must submit a request for payment, along with supporting documentation, to the contracting officer who reviews the package. If all is in order, the officer sends a funding request to the Office of Small and Disadvantaged Business Utilization in Washington. When the funding is received, the contract is modified to authorize the incentive payment.

Brown credited Edwin Custodio, a contracting officer with Brooks’ 311th Human Systems Wing Environmental Contracting Division, with playing a “critical role in the negotiation and administration of the contract performance.”

The small business specialist also praised Samer Karimi, AFCEE’s Alaska team chief, who provided the technical component for the contract negotiation. Brown said Karimi also was the person who monitored the project and worked directly with the contractor’s field personnel to handle any technical problems that might arise.

“Making the program successful required a great deal of dedication, given the obstacles inherent to program performance at such remote sites,” Brown concluded.

Official predicts big gains from Pacific-area conference

**By Tech. Sgt. Barb Lavigne
15th Air Base Wing Public Affairs
Hickam Air Force Base, Hawaii**

An environmental conference that took more than a year to plan came to fruition April 4-7 as more than 300 officials from throughout the United States gathered in downtown Honolulu.

The Pacific Environmental Restoration Conference, or PERC, brought together environmental leaders from the Department of Defense, state and federal regulatory agencies, Hawaii educational institutions, local community representatives and environmental consulting firms.

More than 120 presentations were delivered at the conference, sparking interaction between the scientists and engineers who were in attendance. The topics discussed ranged from natural attenuation of chlorine solvents to a presentation called "Using Traditional Cultural Values to Enhance Institutional Controls on Adak Island."

DOD, federal and state regulatory agency officials conducted 90, 25-minute technical sessions throughout the conference.

Speakers at the meeting included Honolulu Mayor Jeremy Harris, who welcomed the attendees, and Gary Vest, principal assistant deputy undersecretary of defense for environment security, who gave the event's keynote address.

Speakers representing the military services were Elsie Munsell, deputy assistant secretary of the Navy; Richard Newsome, assistant for environmental restoration, Office of the Assistant Secretary of the Army; Col. Richard Freeman, chief of environmental management for Headquarters Air Education and Training Command; and Col. Ross Miller,

AFCEE director of environmental quality.

Representing the regulatory community were Felicia Marcus, administrator for Region IX, Environmental Protection Agency; Dr. Bruce Anderson, director of the Hawaii Department of Health; and Dr. Walter Kovalick Jr., director of the technology office in the EPA's Solid Waste and Emergency Response Office.

Other speakers included local community restoration advisory board members Dr. Noa Emmett Aluli, chairperson of the Kaho'olawe Island Reserve Commission, and Dr. Samuel Gon III, director of science for the Nature Conservancy of Hawaii.

The idea for a conference of this magnitude originated with Bill Barry, chief of the 15th Air Base Wing's 15th Civil Engineer Squadron environmental restoration element at Hickam Air Force Base. Members of the Society of American Military Engineers Honolulu post and the PERC council, which is comprised of volunteers from industry, government and academe, acted on the idea.

About the conference, Barry said: "Participants shared lessons learned and promoted the application of proven and emerging environmental solutions in Hawaii and throughout the Pacific. The conference created a holistic cross-feed with peers within the environmental field, opening doors to better ways we might do our jobs rather than work in a vacuum.

"We stand to gain tremendously from this conference," he added. "Information gained from the conference could ultimately provide savings in time, dollars and resources."

One of the conference participants, Paul Chinen, program manager for IT Corporation and a contractor from Pearl Harbor, Hawaii, said that Barry's team constitutes the most effective environmental outreach program he's seen. "Other branches of the military struggle with the environmental program, but Hickam's program is very effective," he said.

The success of the 15th ABW environmental program is probably why a local Hawaiian environmental community action group submitted two resolutions to the Hawaiian Legislature last year. The resolutions encouraged the U.S. military and the agencies of the state and counties of Hawaii to emulate the community partnering process that the 15th ABW has developed.

The resolutions were approved one year ago and demonstrate community support of the efforts that the base makes to inform and involve the Hawaiian community on environmental restoration activities through forums such as the three Hickam restoration advisory boards.

Project recovers dumped asphalt

An 18-month asphalt-recycling project managed by AFCEE resulted in the recovery of hundreds of thousands of gallons of the paving material from three disposal areas on Andersen Air Force Base, Guam.

The project, completed last summer by an AFCEE environmental contractor, OHM Remediation Services Corporation, also collected and disposed of nearly 9,000 empty metal drums and 5,500 cubic-yards of asphalt-contaminated debris from the 12-acre site.

Base officials said the \$1.8 million recovery and disposal effort cleaned up a long-standing environmental problem.

The asphalt and its badly deteriorated containers were the remains of extensive paving projects undertaken after World War II.

Field crews dug trenches to recover the asphalt from leaking drums, heated the material in an asphalt recovery system and then collected the liquefied asphalt in reconditioned metal drums.

Materials contaminated by spilled asphalt were placed in a permanent storage area surrounded by a soil perimeter berm. Metal drum remnants were first stockpiled and later transported by dump truck to the Andersen Air Force Base Landfill.

The more than 4,300 55-gallon drums – or nearly 242,000 gallons – of asphalt that were recovered exceeded the expected 3,100 drums, officials said. The material went to the Guam Department of Public Works for use in paving public driveways, parking lots and bicycle paths.

The Andersen project resulted in not only a 100 percent cleanup of three Installation Restoration Program sites, it also enhanced the Air Force's relations with island government leaders by making the recycled asphalt available for public use, said base officials.



Asphalt from a disposal area on Anderson Air Force Base, Guam, begins to drain into a trench dug next to the site to collect the old paving material.



Metal drums, rusted and battered after many years of burial in a disposal area, are collected and taken to an asphalt recovery system. Once the asphalt was removed from them, the deteriorated containers were sent to the base landfill.



Recovered asphalt is processed and poured into reconditioned drums.

Technology Update

Old technology offers new angle on drilling cleanup wells

By Glenn Anderson

IRP Project Manager
Travis AFB, Calif.

Cleaning up contaminated groundwater at a busy industrial facility or residential area is never easy for environmental managers. Demolishing a building to get near the contamination is usually not an option.

To further complicate the cleanup, buried water pipes are used to connect the cleanup wells to a groundwater treatment plant, and most community managers do not support the digging of trenches across parking lots, landscapes and busy streets.

This is the problem Travis AFB, Calif., faced during the construction of the groundwater treatment system in the West Industrial Operable Unit (WIOU). To connect the network of groundwater extraction wells to the newly constructed West Treatment and Transfer Plant (WTTP), the contractor had to install water pipes under new landscaping and parking lot, beneath two streets and below the west branch of Union Creek. A better method had to be found to complete the



A directional drill operator at Travis Air Force Base, Calif., bores the first of a number of holes that will be used to install water pipes. A pipe network will connect a series of groundwater extraction wells to a groundwater treatment plant. Horizontal drilling turned out to be the best alternative to digging trenches across parking lots, landscaping and busy streets.

treatment system without interfering with the local activities.

The answer was horizontal drilling. This relatively old technology from the oil drilling industry is gaining acceptance in the environmental world. The horizontal drilling rig is usually a compact machine that allows the drill bit to enter

the ground at a shallow angle.

The key to directional drilling is the steering tool, located behind the drill bit. The tool uses a magnetometer, a gyroscope or an electronic beacon to tell the equipment operator the location and direction of the drill bit. When the drill bit reaches the desired depth,

the operator changes the direction of the drill bit and allows it to drill horizontally. The direction of the drill bit is changed again to allow it to exit the surface.

Once the initial hole is bored, the water pipe is then attached to the drilling assembly and pulled back through the hole. Drilling mud, a mixture of soil and moist clay, lubricates the piping for its journey through the hole and fills in the space between the pipe and the bore walls.

A Sacramento, Calif., sub-contractor, Redline Drilling, provided the specialized equipment and expertise for the project. Crews used a 3-inch drill bit for the initial drilling and up to a 10 inch bit to “backream” the boring and install the piping. A field team maneuvered the bit around numerous utilities, including electrical and communication cables, sewer pipes and four fuel lines, to install more than 1,700 feet of piping without incident, said David Hanson, senior engineer for CH2M Hill, the primary contractor for the project.

“Directional drilling is a major advantage over surface trenching,” said Dale

EARTH DAY PROJECT: *Helping the purple martin*



Travis Air Force Base, Calif., project manager Dale Malsberger (second from left) inspects some of the more than 1,700 feet of pipe that will be installed to carry contaminated water from extraction wells to a groundwater treatment plant on base. (Photos courtesy Glenn Anderson)

Malsberger, Travis project manager for the North/East/West Industrial Operable Unit, which encompasses the WIOU. “The technology enabled us to complete the project without disturbing the landscaping on base. We also avoided potential costs for repairs to damaged utilities and the cleanup of leaks from punctured fuel lines that sometimes occur from surface trenching.”

Because of the unique equipment and skills required by this technology, the cost of installing pipe is generally higher with horizontal drilling compared to the trench method.

For example, the cost estimate for mobilizing and operating the horizontal drill rig for the project was approximately \$60,000 for 600 feet of horizontal drilling, or about \$100 a foot, including the cost of materials, according to Hanson.

However, the drilling managers realized that this technology would actually reduce the overall project cost by eliminating costs associated with repairs to utilities, parking lots and landscaping; for the rerouting of road traffic during construction; and for additional costs associated with minimizing the impact of construction on local activities. Under the existing contract, an additional 1,100 feet of pipe was installed at no additional cost, Hanson said.

With this old technology offering new solutions to existing cleanup challenges, drilling holes across new infrastructure for the installation of pipelines and cleanup wells may no longer pose a problem for environmental engineers.

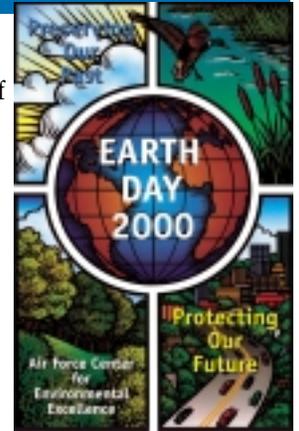
This article originally appeared in a recent issue of the Travis AFB Installation Restoration Program Newsletter. It is reprinted here with the editor’s permission.

Earth Day, April 22, 2000, marked the 30th anniversary of the birth of the modern environmental movement.

To commemorate the historic event, Brooks and AFCEE sponsored a number of activities, including cleaning up, repairing, replacing and relocating the base’s 16 deteriorated purple martin birdhouses. The volunteers’ reward, said Brenda Roesch, AFCEE Earth Day coordinator, was to be able to watch the birds arrive during the coming months and hatch little purple martins.

The purple martin is the only North American species of songbird entirely dependent upon human-supplied nesting cavities for reproduction, she said. “If we don’t put up houses and gourds for them, martin populations will decline. The volunteers helped preserve this natural treasure for future generations.”

Additional information on purple martins is available from the Purple Martin Conservation Association at 814-734-4420 or by visiting the PMCA Web site at www.purplemartin.org.



Purple martin houses like the ones shown here were cleaned up and repaired on Brooks as part of Earth Day activities.

Plan helps bases manage natural resources

By Stan Rogers

Air Force Space Command

Peterson Air Force Base, Colo.

Originally passed in 1960, the Sikes Act has become one of the most important pieces of legislation for Air Force natural resource managers. The legislation outlines responsibilities related to natural resource conservation on Air Force-owned-or-controlled lands.

In 1997 the Sikes Act was amended to incorporate new terminology and policy. These Sikes Act Improvement Amendments, or SAIA, mandate that installations write and implement an Integrated Natural Resource Management Plan by Nov. 18, 2001, and review the document on a regular basis.

The INRMP is to be developed in close cooperation with the U.S. Fish and Wildlife Service and the state fish and game agency, and it must reflect the mutual agreement of the parties concerning the conservation, protection and management of fish and wildlife resources. Additionally, there must be an opportunity for public comment prior to the implementation of the INRMP.

The Amendments also address the collection of fees from the sale of installation fishing and hunting permits. Installations are authorized to enforce hunting and fishing permits and to collect, spend, administer and account for the fees. Revenues must be spent on the installation where the fees are collected and the Department of Defense must submit an annual report to Congress regarding compliance with the SAIA.

The INRMP's objective is to help installation commanders manage natural resources more effectively, ensuring that installation lands remain available and in good condition to support the military mission. Air Force Instruction 32-7064, Integrated Natural Resource Management, requires that Air Force installations have an INRMP. The SAIA's intent is to encourage installations to get these plans off the shelf and into the hands of the decision-makers whose decisions can impact the installation's natural resources.

While most Air Force installations have an INRMP, the SAIA may require that it be updated to meet new requirements. The following points highlight key requirements to consider in evaluating existing INRMPs for SAIA compliance:

— In addition to the standard elements outlined in AFI 32-7064, the SAIA require that the INRMP discuss sustainable use, public access, law enforcement and integration and support of the military mission. Existing plans should be reviewed to ensure they include each of these elements.

— INRMPs that have not been developed in cooperation with the U.S. Fish and Wildlife Service and state agencies must be coordinated with these organizations prior to the November 2001 deadline. Records should include letters of concurrence from these agencies to document their involvement.

— The National Environmental Policy Act, or NEPA, process

could be used to meet the public review requirements for new or amended plans. Alternative provisions to solicit and evaluate public comments – notices in the local media, public meetings, etc. – should be developed if the NEPA process is not used, but managers must ensure that all potentially interested parties have an opportunity to comment. AFI 32-7064 requires that NEPA documentation be developed at the same time the INRMP is developed, so many of the existing plans may have already met the public comment requirement.

— To meet the annual DOD reporting requirement each installation must review its INRMP and submit specific information. This review should include the date of completion or revision of the INRMP, conservation program expenditures and the extent to which INRMPs comply with the SAIA.

— Finally, the Air Force requires annual updates to the INRMP and a major revision after five years. To meet this requirement INRMPs should include a five-year work schedule that is revised annually to account for changes in budgets, manpower and mission requirements. A major update to the INRMP should be completed in the fifth year.

While the 1997 Amendments introduce new terminologies, INRMP elements and program reporting and accounting requirements, they do not reflect the way we do business. There are no significant changes in the DOD conservation program resulting from the SAIA; they do provide, however, guidance as to what we should be doing to enhance and protect our conservation programs.

Air Force natural resource managers should continue to implement INRMPs as part of their support to the military mission. They should also continue developing cooperative agreements and partnerships with state and federal fish and wildlife agencies, involving the public in the decision-making process and increasing program advocacy.

Stan Rogers is the natural and cultural resource planner at Air Force Space Command Headquarters. This article originally appeared in the January 2000 issue of Frontiers, the environmental publication for Air Force Space Command. It is reprinted here with the author's permission.



A pronghorn antelope grazes unconcerned at EE. Warren Air Force Base, Wyo. Federal legislation requires commanders to develop an Integrated Natural Resource Management Plan to show how they will conserve, protect and manage the fish and wildlife resources on their installations.

AFCEE volunteers help restore church

By Gil Dominguez

AFCEE employees formed one of many groups throughout San Antonio that rolled up their sleeves and gave of their time recently to restore an old church for a congregation in St. Hedwig, a community located on the Alamo City's East Side.

Jim Baker, Environmental Restoration Directorate, was the informal leader of a team that included eight other AFCEE staffers who devoted several Saturdays to the volunteer project.

The other helpers were Capts. Laura McWhirter and Brian Murphy, Ernest Moore, Bill Myers, Cleo Walton, Irma Flores and Marty Watt.

The white-collar crew that included engineers and computer specialists worked mainly in the building's interior, installing new gypsum wallboard – something most of them had never done before.

"I didn't know a thing about Sheetrock when I started," Baker admitted.

But team member Moore, who had taught himself to install the material, was happy to give the others some on-the-job training. The rest, "picked it up as we went along," related Baker.

The newly restored New Jerusalem Baptist Church, at one time an African-American public school, was abandoned 20 years ago when its pastor, the Rev. James Palmer, decided to move his congregation to another part of town

because of the building's deteriorating condition and falling membership rolls.

The pastor told the local press that he had always dreamed of returning with his flock to the old church; he just didn't have the manpower, materials or money to renovate the house of worship.

Palmer's dream came true, however, with the help of volunteers from his congregation, another local church and organizations such as AFCEE who gave the building a complete makeover, inside and out.

Workers repaired the floors, replaced missing windows, stripped and refinished the old pews, gave the interior and exterior new coats of white paint and built two storage rooms in the back of the church. A generous donor gave the church a new piano and a department store provided free carpeting. In total, about \$20,000 worth of materials and labor were contributed, Palmer estimated.

"It was great working on this project in its entirety," said AFCEE volunteer McWhirter. "Seeing the progress of our work and the final result was very rewarding."

Baker was present on the Sunday that the members of the New Jerusalem Baptist Church held their first service in their "new" place of worship.

"When we finally saw the congregation in the church, singing and praying, it made all our hard work worthwhile," he said.



Marty Watt, left, and Irma Flores, both of AFCEE's Computer Systems Division, work on installing wallboard inside an East Side Baptist Church. A team of AFCEE volunteers joined others in San Antonio to help the congregation fix up the old building.



The exterior of the New Jerusalem Baptist Church before undergoing some much needed work. The rear of the building had been blown over by a windstorm and had to be straightened and strengthened before restoration could begin. The exterior got a coat of fresh paint and a new entryway porch, complete with wheelchair ramp. (Photos courtesy Jim Baker)

Front and Center

Contracting team members are outstanding civilians of the year



Two members of AFCEE's contracting team were recently named Outstanding Civilians of the Year at Brooks AFB.

The honorees are Perlester Kay and Mary Habib, both with the 311th Human Systems Wing's environmental contracting division that provides direct support to AFCEE.

Kay, a lead procurement technician, won the honor in the GS-6 to GS-8 civilian employee category while Habib, chief of the division's contract administration and management support section, was recognized in the GS-9 to GS-12 category.

Base officials said the selections were based on the winners' extraordinary professionalism, dedication to customer service, continuous self-improvements and ongoing service to the local community.

They noted that Kay, who processes purchase requests for environmental contracting requirements, performed his job without any errors 100 percent of the time, despite a 30 percent increase in requirements.

Officials praised Habib's analysis and oversight of past-year contracting obligations and the outstanding funds associated with them. They said she provided an accurate and continuous monitoring system for over tens of millions of dollars, ensuring that all available funds were applied to critical environmental cleanup programs across the country despite fiscal year deadlines.

Habib was recognized also for managing the quarterly AFCEE Business Board briefings, which provide senior managers with in-depth analysis and performance indicators for all AFCEE contract operations.

Five other AFCEE members were also among the 37 people nominated for the annual competition. They are: Cynthia De La Garza and Katherine Schmelzer, GS-3 to GS-5 category; Tammala Tennison, GS-9 to GS-12; and Roger Blevins and Teresa Green, GS-13 and above category.



Senior officials representing the military environmental service centers sign their names to approve publication of a new handbook developed by the three agencies. Shown from left are Col. Edward Newing, commander of the Army Environmental Center, Aberdeen Proving Ground, Md.; Col. Sam Garcia, AFCEE executive director; and Cmdr. Doug Boothe, executive director of the Naval Facilities Engineering Service Center, Port Hueneme, Calif. The signing of the *Remedial Project Manager's Handbook for Ecological Risk Assessment* took place during a tri-service technical center meeting held here in late February. (Photo by Gil Dominguez)

Editor's Note

It's spring and time to take care of some housecleaning. First of all, thanks to everyone who has contacted us about address changes, etc. That's good news because it means people like *Center Views* and want to continue receiving it. Others had good words to say about the publication and requested to be added to the mailing list. We are more than happy to respond to readers' requests.

Then there has been correspondence from people who seemed to be a bit concerned because *Center Views* is still being mailed to someone who long ago left the organization or a military recipient's rank has changed and we still haven't promoted him or her. There are cases, also, where one office is receiving multiple copies — more than they really need or want.

Unless the individual or the organization tells us about these types of changes, we have no way of knowing about them. And with some 800 addressees, it's impossible to contact everyone to find out if anything has changed.

So we need your help. Please let us know as soon as you can about name, rank and address changes. On the other hand, if you or your organization no longer wishes to receive *Center Views*, please let us know about that, too.

It is not our intention to flood offices with copies of the publication. But our practice is to honor requests from every reader who wishes to be placed on the mailing list. Sometimes, however, several people in the same organization are receiving *Center Views*, and when they leave they don't tell us about it. Consequently, several copies of the publication continue to arrive there, month after month. It then becomes "junk" mail and something of a nuisance.

We understand, and there's no need for that. Let us know right away, either by telephone or e-mail, and we'll make sure that we stop the mailing. We would prefer that *Center Views* go to offices where it will be read and where, we hope, it can contribute something to the organization's environmental program.

In the meantime, we will continue to mail the AFCEE publication to wherever it's wanted. And if for some reason your name has fallen off our distribution list, please let us know and we will be glad to put you back on.

We also want to remind you that we need your articles and photos. Feel free to submit them via e-mail to gil.dominguez@hqafcee.brooks.af.mil. You may also request our writer's guidelines that tell you how we prefer that articles be written and submitted.

In another matter, in the winter issue we ran an article on the new Construction and Demolition Guide that featured a quote from Karen Kivela in which she stated: "When the new solid waste MOM (measurement of merit) came out for fiscal year 2000, it included for the first time a requirement to divert C&D waste from the landfill." However, instead of "fiscal year 2000" it should have read "fiscal year 1999."

Center Views regrets the error and any inconvenience it might have caused.

Gil Dominguez,
Center Views editor



**5th Annual Joint Services Pollution
Prevention & Hazardous Waste Management
CONFERENCE & EXHIBITION**

*Changing Today for a Cleaner Tomorrow
Environmental Quality 2000*

*Aug. 21-24 in San Antonio
at the Henry B. Gonzales Convention Center.
Call 210-536-4670 (DSN 240-4679)
or 210-536-3403 (240-3403) for more information*