# RIP RAP

Richard Banker, in the Cost Engineering Branch, took this photo at the Acoma Pueblo Visitor Center. He said the scene really jumped out at him, as the light created silhouettes of the pueblo women, depicted in the statue, against the blue sky.

### U.S. Army Corps of Engineers Albuquerque District

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#### US Army Corps of Engineers ® Albuquerque District

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District Engineer, Lt. Col. Jason Williams

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### New Mexico's Worst Wildfire Contained by Collaboration

The USDA Forest Service reported Aug. 1 that, after 36 long days, firefighters fully contained the Las Conchas Fire, the largest wildland fire in New Mexico's recorded history.

Ignited on June 26, the Las Conchas Fire burned more than 156,500 acres, primarily in the Santa Fe National Forest and parts of the Valles Caldera National Preserve, Bandelier National Monument, Pueblos of Jemez, Santa Clara, Cochiti and Santo Domingo, and private lands. Numerous communities were threatened during the incident.

"It's been a tough six weeks," said Maria T. Garcia, Santa Fe National Forest Supervisor. "The successful containment of the Las Conchas Fire is the result of the tremendous involvement and coordination of many people, from many agencies and jurisdictions."

Four National Incident Management Teams coordinated thousands of firefighters and numerous helicopters, engines, tenders and dozers to bring the wildfire under containment. Many of these firefighters lived and staged their equipment at the District's Cochiti Lake Project. public or any emergency responders were seriously injured during the fire suppression efforts," Garcia said. "That's attributable to good coordination, training and experience."

The focus now shifts to stabilizing the land and resource impacts within the burned area. Natural resource experts have already assessed the Las Conchas Fire area and identified treatments that will stabilize soils and re-establish plant cover by seeding and mulching certain parts of the burned area. In addition, repairs to roads, culverts and drainage channels will also be applied to protect life, property and things of value downstream that may be at risk from flooding and debris flow.

Forest Service officials said the fire created significant safety hazards for anyone entering the burned area, including threats from flash flooding, falling trees and rolling rocks. They are currently assessing hazards that would potentially affect the public using Forest System roads that access private land within the burned area. For additional information on closures and planned treatments, visit <u>http://www.fs.fed.us/r3/sfe/</u> or Inciweb at <u>http://www.inciweb.org/incident/2406/</u>

"The greatest outcome is no member of the

### Cochiti Lake's Tetilla Recreation Area Closed for Remainder of Season

Based on the threat of potential flooding and safety concerns, and in consultation with Pueblo de Cochiti's Department of Natural Resources Director Jacob Pecos, the District has decided to close the Cochiti Lake Project's Tetilla Recreation Area for the remainder of the 2011 recreation season. Pecos agreed the

closure was necessary and would temporarily help support large mammals and other wildlife now in the area as a result of being displaced by the Las Conchas Fire.

As management partners, the Corps' and the Pueblo's common goal is for the area to remain closed until more normal conditions next spring.



The RIP RAP supports our Operations Plan: Action 10 (Promote the Common Regional Picture and Strategic Communications).

#### **District Happenings**

### **District Responds to Requests for Technical Assistance**

By Kristen Skopeck, Public Affairs

The District received an official request July 5 for technical assistance from Santa Clara Pueblo for anticipated flash flooding following the Las Conchas Fire in the Santa Clara Creek watershed, located immediately upstream of the Pueblo.

In response to this request, a small team formed, and flood risk management authority and funds were identified to engage in assistance with initial flood risk scoping.

On July 7, the Department of Energy, on behalf of the Los Alamos National Laboratory, and the National Park Service on behalf of Bandelier Monument, requested technical assistance for initially assessing potential flood hazards.

Existing memorandums of agreement outlined protocols for the Corps to give flood risk management technical assistance to both agencies, at their request.

Called into action for this technical assistance was District Supervisory Hydrologist Tamara Massong and Principle Hydraulic Engineer Bob Mussetter, with Corps' contractor, Tetra Tech, Inc.

According to Massong, the fire began in the eastern, upper edge of the Jemez Mountains, near the rim of the caldera, then it traveled down the flanks of the mountain into several canyons. From there, the fire

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moved north along the mountains' northern upper edge, across the headwaters of tributaries flowing into Los Alamos laboratory property, and continued north into the headwaters of Santa Clara Creek. The fire spread onto the western flank of the mountains and dropped over the caldera rim, entering the forests within Valles Grande.

The reconnaissance team concluded that extremely hot fires had burned the canyons on the eastern and northern outer rim of the mountains and these watersheds were at high risk for extreme flash flooding.

The Santa Clara Pueblo and Bandelier Monument staff started generating emergency management plans, filling sand bags and building barrier walls to help protect buildings within floodplains impacted by the fire and now prone to flash flooding.

Meanwhile, the Corps' team continues to gather data and give technical assistance by identifying structures at risk District Supervisory Hydrologist Tamara Massong and Tetra Tech Principle Hydraulic Engineer Bob Mussetter flew by helicopter over the Las Conchas Fire burn area to identify areas of concern and make recommendations.

for flooding.

For large rainfall events and their subsequent floods, the Corps has advised the entities to be prepared to evacuate their floodplains.

The Corps' Flood Risk Management program is also working with others to install early warning systems in the affected areas.

A major lesson learned from the Cerro Grande fire 11 years ago was that flood reduction structures installed after that fire had a high failure rate. Those that survived were designed with refined hydrology data that better predicted flood magnitudes.

Data are gleaned from models and field collection considering the increased amount of runoff, the water surface elevations, projected water velocities, potential debris flows and sediment transport on burned slopes.

Massong said this information is critical to design lasting levees, dams or other flood reduction features.

### **Post Fire, Corps Helps Town Protect Water Supply**

By Elizabeth Lockyear, Public Affairs

The people in the town of Raton, N.M., know that a wildfire's effects don't end when the last smoldering ember is extinguished.

The "Track Fire" originated June 12 on the northern outskirts of Raton and quickly got out of control. It eventually burned almost 27,800 acres, thousands of trees and much of the ground-cover vegetation of the watershed around Lake Maloya in Sugarite Canyon, which straddles the New Mexico-Colorado border.

Without the trees and ground-cover vegetation which slow water flow, monsoons threatened the lake. And, the monsoons come in late summer, the wettest months of the year there. With no intervention, officials knew extensive erosion from high water flows would carry ash, dirt and debris into the streams feeding Lake Maloya, fouling the water and making it turbid.

Turbidity, a liquid's cloudiness or haziness, is measured in Nephelometric Turbidity Units or NTU. The NTU level constitutes a key test of water quality. Water with lower NTUs is easier to treat; the town's water treatment plant can't treat water higher than 15 NTUs.

The majority of the town's potable water comes from Lake Maloya, as Raton does not have viable ground water sources. Furthermore, while the Cimarron pipeline transports water from a secondary source at Eagle Nest Lake, N.M., it's not reliable in winter.

Dan Campbell, general manager of Raton Water Works, pointed out the town's biggest priority: preventing as much sediment as possible from getting washed into the lake.

In an attempt to reduce the risk to the town's water supply, town officials called the District. Under Section 404 of the Clean Water Act, the Corps has to approve actions that affect streams and wetlands and many of the options the town considered would require Corps' approval.

Raton applied for an Emergency Individual Permit. When approved, the town could start work on various risk reduction actions before



District personnel witnessed an "ash" devil while walking the Track Fire burn scar.



The hills just above Raton's Lake Maloya badly burned, and officials know rain will likely bring ash, dirt and debris right into the lake. This is a problem since the majority of the town's potable water comes from the lake.

— Continued on next page

#### **District Happenings**

#### — From previous page

the monsoons arrived. The normal process of getting an individual permit takes 120 days. Raton wanted (and needed) to begin work immediately.

On June 24, the District's Chief of Regulatory Division Allen Steinle and regulatory project manager Deanna Cummings traveled to Raton to view the damage to the watershed and discuss with town officials what they were considering as options to protect their water.

Over the next few days Cummings coordinated with the town of Raton and other agencies to get the necessary information for the permit application. Cummings had emergency consultations with both New Mexico's and Colorado's Fish and Wildlife Departments. She got water quality certifications from both the New Mexico Environmental Department and the Colorado Department of Public Health to show that the proposed project wouldn't violate state water quality standards. Then the approval package went to Division headquarters in San Francisco for the Division Commander's approval. The seriousness and tight timeline from the monsoon threat enabled Cummings to use emergency permitting procedures to expedite the process and get the permit approved in about a week. However, the town still has to undergo a compliance follow-up, and Cummings must conduct an "after-the-fact" evaluation.

The permit approves the construction of sedimentation retention basins within existing ephemeral streams or adjacent to stream wetlands in three of Lake Maloya's major tributaries — three basins in New Mexico and one in Colorado.

According to Cummings, these basins are an "effort to try and retain sediment before it gets into the lake."

The town's plan: as the basins fill with sediment, town workers will restore them and build more basins upstream, replacing the first basins. The permit will be modified to add new basins as needed over the next three to five years, Cummings said.



Photo by Lisa Lockyea

During the visit by the District's regulatory staff, logs were still smoldering from the fire.

When constructing a basin, the first foot of soil will be set aside. It contains a seed bank, and this will be used to help restore the basin after it fills with sediment.

Officials also plan to use Lake Dorothey, located upstream from Lake Maloya, as a sediment retention basin. According to Cummings, it is a "dead pool" with the water outlet higher than the water level, so the only way to drain the lake is pumping the water out.

The basins could fill up with sediment and debris after just a few storms, because the fire damage alters the peak flows. Based on data from recent fires in two nearby watersheds, the high flows can be estimated. The first year is approximately 10 times the normal peak; however, the second year it increases to approximately 200 times normal. Cummings added that it "then slowly goes down as vegetation increases."

The town is also installing sediment curtains in Lake Maloya where three tributaries enter the lake. The town doesn't require Corps' approval for this installation. Similar to a wall, the curtain is anchored at the bottom and has floats on top. Typically these are used in lake dredging projects, but the town hopes they will be another barrier to keep sediment and debris out of the water.

## **Fish and Fire in the Rio Grande**

By Ariane Pinson, District Technical Writer / Editor

You just don't expect fish to drown, and it is almost counter intuitive that dead fish down in the valley could somehow be the result of a fire high up in the mountains.

Yet, in this hot, dry post-La Niña summer, fish in the Rio Grande have become the latest casualty of the Southwest's multi-year drought.

This year, more than a decade of drought has been intensified by a warm winter, except for a few days in February, and very little rain or snow since the last monsoon season. Tinder-dry-pineforests, low humidity and high early-summer winds combined to create a ferocious fire season. More land in Arizona, New Mexico and Texas burned this year than in any other. And, both Arizona and New Mexico experienced their largest fires ever, including the Wallow Fire in Arizona and the Las Conchas Fire in the Jemez Mountains of New Mexico.

But, just when we thought the worst was over, now that the fires are contained, come reports of rafts of dead fish.

In mid-July, there was a significant fishkill in the Gila Box along the Gila River in Arizona, in a drainage badly affected by the Wallow Fire. And, in late July, carp, catfish and white suckers washed up dead along the banks of the Rio Grande.

Corps biologist Sarah Beck explains that fishkills occur on a stream when you have a very localized segment of the stream in which conditions become rapidly intolerable for the fish.

"A river flushes itself, diluting bad material and washing dead fish downstream," she said.

In the case of the Rio Grande. she said, reports are that the fishkill occurred primarily in the vicinity of Peña Blanca, N.M., where Peralta Canyon enters the Rio Grande. A storm high up in the mountains over the Las Conchas burn area dumped rain on the ash-covered landscape, producing surface runoff rich in ash and charcoal. This runoff entered Peralta Creek and moved swiftly downcanyon to its confluence with the Rio Grande, where the ashy, charcoal-rich water produced a visible plume in the river. The volume of water entering the Rio Grande rapidly raised the main river 8 inches.

Although the plume was quickly diluted as it moved downstream, where it first entered the main stem it would have been sufficiently concentrated to do great harm to fish. This ashy water would damage the gills of the fish in a way



Ash and debris in a tributary of the Rio Grande. that would limit or prevent the gills from taking up oxygen from the water. At the same time, oxygen levels in the river fell rapidly because of the addition of organic matter along with the ash. In short, the fish rapidly began to have difficulty breathing, and some couldn't survive.

> Were Rio Grande silvery minnows affected by this plume from Peralta Canyon? It's hard to know. Beck points out that only large fish were found dead along the river, but dead minnows would be harder to see compared to larger fish, and more likely to be scavenged, so the impact, if any, of this event on the minnow is unknowable.

Will we be seeing more fishkills in the future? In all likelihood, yes. There has been very little rain over the burn scar, and each drainage will need three or four large rain events to completely flush the ash and nutrients from the burned areas.

### **Corps Participates in National Neighborhood Night Out**

By Ronnie Schelby, Public Affairs

Deputy Commander Maj. Richard Collins and Civil Works Project Manager Jerry Nieto joined more than 70 residents and neighbors Aug. 2 at the Durand Open Space in the South Valley of Albuquerque for an event associated with National Neighborhood Night Out.

This local event, hosted by the Bernalillo County Water Utility Authority, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) and the Corps was held in order to update and inform the neighbors of the Southwest Valley project.

The Corps began its part of the project's construction Dec. 1, 2010, and phase I was just completed. The District's work included the design of the intersection of the Isleta Drain and the Los Padillas Extension, as well as the intersection of the Los Padillas Extension and the Los Padillas Drain.

Events of the night included displays from various stakeholders and a guided walk led by spokespersons from the different agencies.

The walk gave neighbors the chance to observe the work and ask questions.

"I was pleased to participate

in the National Neighborhood Night Out event at the Durand Open Space and contribute to the walking tour," Nieto said. "It was nice to meet and talk with South Valley residents and provide information on the improvements the Corps, AMAFCA and Bernalillo County are undertaking to lessen the flooding problems in the Southwest Valley."

Nieto said the project will reduce the flood hazards that exist within the South Valley's floodplains. It will also contribute to the preservation and enhancement of fish and wildlife, as well as wetlands.



Southwest Valley project neighbors walked with agency members to see the project features and ask questions. Rip Rap — August 2011 — Page 6



Corps Project Manager Jerry Nieto and South Valley resident Tony Padilla discuss the project at the National Neighborhood Night Out event.

This activity supports our Operations Plan: Action 7 (Execute the regional Military Program and capitalize on Interagency and International Services opportunities).

**District Happenings** 

### New National Guard Facility is at Mid-point

By Elizabeth Lockyear, Public Affairs

Last August, the Corps broke ground on a new \$28.5 million Army Aviation Support Facility at the Santa Fe, N.M., airport, which is now 45 percent complete.



According to Project Manager Kerry Horner, The Corps is overseeing the construction of a new Army Aviation Support Facility at the Santa Fe, N.M., airport for the New Mexico National Guard.

the 75,000 square foot facility will include a new flight operations center and an expanded maintenance hangar. It also includes an aircraft indoor storage building, parking for military vehicles and an enlarged aircraft parking ramp and taxiway.

When finished, the facility is expected to be Leadership in Energy and Environmental Design (LEED) certified at the Silver level by the U.S. Green Building Council.

Horner said that LEED features incorporated into the design include the use of natural day lighting from energy efficient windows, extremely high-efficiency motors on all HVAC equipment, energy efficient heat pumps for heating and cooling of the building, low water usage plumbing fixtures, R-30 roof insulation value, a high solar reflective index of 80+ on roofing, low VOC paints and solvents and building flush-out, and thermal imaging to detect any possible heat loss. These environmentally friendly buildings will greatly reduce utility costs throughout the facilities' expected life cycle. during construction was the wind.

"The winds this year presented a special challenge, since we are close to the Santa Fe airport," Horner said. "The contractor had to take special precautions to ensure everything was extremely wind resistant and nothing blew out onto the runways."

Horner said the contractor is approximately 10 percent behind schedule due to correction of deficient concrete work and structural fill in the beginning of the project. Because of this, the project's completion date was pushed back from December 2011 until Feb. 17, 2012. He said all of Corps and contractor personnel working on the project want to give the New Mexico National guard Medical Evacuation unit a world-class facility.

Besides Horner, other District employees working on the project include Senior Quality Assurance Representative Eric Procter, Project Manager Filemon Gallegos, Technical Advisor John Long, Mechanical Engineer Regan Glandon, Architect Craig Gosling and Electrical Engineer Armando Avalos.

One of the challenges encountered so far

#### Focus on People

### **Corps Holds Summer Senior Leaders Conference**

The U.S. Army Corps of Engineers Summer Senior Leaders Conference was held July 29 to Aug. 5, in New Orleans, La. The annual meeting allowed senior leaders to exchange lessons learned, share best practices and develop strategies and plans designed to orient, focus and synchronize efforts on the Corps' most critical challenges.

This year, the Corps invited key stakeholders who

represent the core set of missions, programs and projects to gain valuable insights that will help improve overall performance.

In addition, a core group of



District Commander Lt. Col. Jason Williams and Emerging Leader / Design Engineer Karen Sill were among the attendees of the Corps' Senior Leaders Conference held in New Orleans, July 29 to Aug. 5.

emerging USACE leaders were Karen Sill, a design engineer. invited to attend the conference to participate in comprehensive and intensive leadership training. Representing the District as an emerging leader was

Finally, several key meetings were held that were integral to the Corps' business operations, enterprise strategies and core programs.

#### Hometown News Release Program Available to Employees



Promotions; awards; professional licensing and more: put them in your hometown newspaper through the Hometown News Release Program. The form is located on the District's intranet. *It takes the information you provide and produces a short story* that is marketed to the news agencies in your hometown and those of family and friends you list on the form.

Relatives and friends get to share the pride of your accomplishments when a Hometown News Release appears. The District gets publicity about the great things happening here. Contact Public Affairs at 505-342-3171 for more information or for help with photos to go with the form.

### **Cadet Shares Thoughts on Internship Experience**

By ROTC Cadet Jonathan Kasprisin

The summer before a cadet's final year focuses on professional development. Many cadets participate in the Cadet Troop Leading Training (CTLT) program, were they shadow platoon leaders. A unique offshoot of this training is the cadet Engineering Internship Program with the U.S. Army Corps of Engineers.

My name is Cadet Jonathan Kasprisin, and I'm a student at Gustavus Adolphus College in Minn., majoring in chemistry with a philosophy minor. I had the privilege of being selected for the Engineering Internship Program hosted by the

Corps' Albuquerque District. Through this internship, I was able to shadow employees in various sections, as well as participate in different types of field work.

My internship experience started when I arrived in Albuquerque as the governor was declaring an emergency because of the largest wildfire in New Mexico history. I quickly saw that the people working for the Corps were actively involved in support of the state's fire suppression activities and were able to provide technical assistance.

I started my rotation in the Executive Office and in Security, which meant meetings, regional update meetings and emergency fire meetings. I began to realize the vast array of work performed by the District. Meanwhile, it was beneficial to observe the leadership styles that are in this unique military and civilian organization.

My internship made me aware of the partnership the Corps maintains with various federal agencies and Tribal nations. I was given the chance to observe a partnering



Cadet Kasprisin in front of the District's main office.

meeting with a local Pueblo's government. As a future officer, I will use the knowledge I gained of how important it is to develop these relationships, because they directly impact the success of the mission.

Rotating through the different offices, I saw the complexities and challenges of each section, as well as how they contributed to the operation as a whole. My time in the District offices was supplemented with trips to the field where I participated in a safety inspection of the Corps' projects at Holloman Air Force Base, N.M., as well as a wetlands delineation determination.

One activity I really enjoyed was being able to exposure to the commander's weekly update use some of my technical science background while working with the Corps' environmental engineers at a geo-probe sample preparation site for ground drilling.

> The people in the Albuquerque District impressed me with their pro-active approach to problem solving, their inter-office cooperation and their positive outlook. It was a unique and valuable learning experience. I extend my sincere gratitude to the Albuquerque District for hosting me and for providing this opportunity.

#### Focus on People

### **Real Estate Pro Stakes Claim on Muskie**

By Kristen Skopeck, Public Affairs

After a good fight, Louie Gurule, a rehired annuitant, real estate specialist and avid fisherman, caught a sizeable Tiger Muskie at Bluewater Lake State Park, N.M., July 16. He was using a lure called a Rattle Trap.

Gurule said Tiger Muskies are a cross between a Northern Pike and a Muskellunge and, because they are a hybrid, they do not reproduce.

The New Mexico Department of Game and Fish stocked the fish in state waters to help control rough fish, like goldfish and suckers, which compete with trout and have had negative impacts on the species.

"In New Mexico, goldfish, suckers and minnows are the primary prey for the Tiger Muskie," Gurule said. "They also eat crayfish, worms, salamanders, each other and an occasional trout."



Real Estate Specialist Louie Gurule displays a Tiger Muskie he caught at Bluewater Lake State Park, N.M.

Louie retired in November 2004, but he returned to the District in 2006 as a rehired annuitant and has worked in that capacity for several tours. He said he has visited Bluewater Lake about every other weekend this summer.

### **District Moves Closer to Ensuring Quality Management**

By Greg Allen, District Quality Mgr.

This year, District personnel have had Quality Management Systems (QMS) Awareness training, identified "process owners" or experts by functional areas, reviewed existing QMS processes and started identifying processes that still need to be developed.

The next step is to select the District's core primary and supporting processes and ensure they are standardized. Also, the District will be evaluated against the newly established USACE Maturity Model, which has five levels. This is how the Corps will measure progress toward full maturity.

I spent 17 years in the aircraft maintenance business with the Air Force, where management fully supported quality management. The program directly contributed to reduction of our flow times on overhauling 50-year-old aircraft from 230 days to 160 days, and to increased quality and customer satisfaction ratings. Accomplishment of these goals directly contributes to our Nation's success in ongoing contingency operations around the globe.

The bottom line is, if the District fully supports the standardization of processes and makes an effort to continually look for ways to improve, the results will be positive, and customer and employee satisfaction will both increase.

### Abiquiu Project Staff Enjoy Movie Partly Filmed at Site

By Elizabeth Lockyear, Public Affairs

Last summer, the District's staff at Abiquiu Reservoir played host to about 200 people during a two-week span, for filming of parts of "Cowboys and Aliens."

The staff and personnel from Public Affairs went to see the movie Aug. 4., and, for the most part, everyone really enjoyed the film.

Before the film started, the staff talked about the copious equipment the film crew had staged by the lake. In addition to five, 48-foot tractor trailers with grip, lighting and camera equipment, there were 12 cast trailers, several sun shelters for the crew, a tent for catering and miles of cables running every direction.

Supervisory Park Ranger Eric Garner remembered that what seemed like individual efforts by the film crew, the production and logistics teams, cinematographers, stunt people, special effects teams and actors, turned into harmonious cooperation when director Jon Favreau velled, "Quiet on the set."

Abiquiu was chosen for filming, because one scene called for an alien spacecraft to crash into a river, and Abiquiu's reservoir had the perfect spot where, with waves created by special effects, it looks like a river on film.

Although a little biased, the staff agreed that those "two minutes" of the final movie

were particularly good.

As the credits rolled at the end of the movie, the staff was delighted to see a film credit in the "special thank you category" that mentioned Army Corps of Engineers, Abiquiu Section.





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### News Briefs—News Briefs—News Briefs—News Briefs

#### **District Has Temp Construction Chief**

Carlos Salazar will be the District's Chief of Construction Branch beginning 1 Aug., for approximately 120 days.

During this period, Salazar will assign Joan Coffing duties as Resident Engineer for the Kirtland Resident Office.

#### AFCEE Director Makes Visit to SPD

U.S. Air Force Center for Engineering and the Environment (AFCEE) Director Terry Edwards visited the U.S. Army Corps of Engineers South Pacific Division Headquarters July 18 to meet the team who oversees military construction execution at 11 Air Force bases in Arizona, California, Colorado, Utah, Nevada and New Mexico.

Edwards guides AFCEE's management of the Air Force's military and housing construction and environmental restorations programs worldwide.

The Army Corps of Engineers is the Air Force's design and construction agent for new military facilities and the South Pacific Division currently supports the largest Air Force military construction program in the Corps.

For the next five years, Edwards said most Air Force military construction in the region supports new missions.

This includes the upcoming bed downs of the F-35 Joint Strike Fighter at Luke Air Force Base, Ariz., and Hill Air Force Base, Utah; the F-16 Fighting Falcon at Holloman Air Force Base, N.M., and the AC-130 gunship at Cannon Air Force Base, N.M.

The Albuquerque, Los Angeles and Sacramento Districts are managing the construction.

More than 20 projects are scheduled during the next three years, with opportunities to take full advantage of energy efficient technologies.

Division Commander Col. Michael Wehr told Edwards the Corps is committed to exceeding his expectations.

#### **District's New Cameras Capture Important Information at a Snap**

An introductory session on how to use the District's new Ricoh 500 SE cameras took place Aug. 5. Ten cameras were recently purchased.

Photographs in the District have many functions, including documenting repair work for use in inventories and incident reports and resources in a cultural survey.

The element that is essential to the usefulness of any photo is the information attached to its properties: location, orientation, subject matter and more. A photo with no identifying information is not useful. Until a few months ago, the photographer would have to enter identifying information in the computer, under properties, a time-consuming process depending on the number of photos. Now, since the District purchased Ricoh 500 SE cameras, this has all changed. These cameras document the necessary information automatically, saving the photographer time.



William Oberle, physical scientist, left, and Chris Parrish, archaeologist, examine a Ricoh 500 SE camera during training.

Another feature allows the photographer to import locations from the camera into Google Earth and ArcMap, a GIS program.