ST. LOUIS ARMY ENGINEER DIST

ESPRIT

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Strauser attends Engineer Officer Advanced Course

By Mike Dace, ED-P

"Welcome to the Engineer Officer Advanced Course-Reserve Component!" These were the first words Deanne Strauser heard upon arrival at the U.S. Army Engineer School at Fort Leonard Wood, Missouri. Deanne is a civil engineer in the Engineering Division, Ordnance & Technical Services Branch. She had the opportunity to attend this two-week course, in November, 1998, developed through the cooperative efforts of the U.S. Army Corps of Engineers and the U.S. Army Engineer School at Fort Leonard Wood, Missouri, under the leadership of Major General Robert Flowers.

This cooperative professional development opportunity is being offered to civilian engineering personnel of the Corps of Engineers as a means for engineering professionals to obtain tactical and technical training, while giving the Corps' engineers greater visibility in the total Army.

As a student of the course, Deanne was assigned to Charlie Company, 554th Engineer Battalion, 1st Engineer Brigade. They train and provide command support for all engineer student officers. This tactical and technical training allowed Deanne visibility to total force training and interaction between active and reserve officers.

Team field exercise - terrain analysis.

(Continued on page 6)

Dr. Martin Luther King Day
70th Birthday Anniversary

When Coretta Scott left Antioch College in 1951 with a degree in elementary education, she wanted to learn about music in graduate school.

She chose the New England Conservatory of Music in Boston for further education, living in a rooming house for $7 a week.

It was there she met Baptist minister Martin Luther King, Jr. who was pursuing a doctorate in theological education at Boston University. Soon she believed he was going to be someone very special.

King stood out from an early age, reciting scriptures before age five. At six he sang hymns from memory that moved people to tears. It was the beginning of the oratory and leadership genius King would exhibit over the course of his life.

He did all he could to bring about peaceful change, leading marches and sit-ins to encourage desegregation of stores and public facilities.

Those efforts were resisted. He and others of various ethnic backgrounds were arrested many times during demonstrations. But his persistence paid off.

In the summer of 1964, Dr. King won the Nobel Peace Prize and was invited to the White House for the historic signing of the Civil Rights Act. He was almost 35 years old.

Dr. King said, "Hatred and bitterness can never cure the disease of fear; only love can do that.

"Hatred paralyzes life; love releases it. Hatred confuses life; love harmonizes it. Hatred darkens life; love illuminates it."

His tragic assassination four years later dampened the enthusiasm of some of his supporters, but it did not derail his mission in life. It goes on.

As we honor this Baptist minister from Georgia, it's easy to see why teacher Coretta Scott thought he was going to be, and in fact was, someone very special.

US Army Corps of Engineers
St. Louis District

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News Briefs

Rend Lake:

Vandals

Vandals were busy at the lake during the weekend of December 5th, when they slashed and snapped about 76 seven to eight feet tall, balled and burlapped Pin Oak trees. The Corps had planted the trees earlier in the year at the outlying areas of Lambrusco and Ward Branch as a wildlife project. Damage to the trees was extensive enough to kill all 76 trees. Cost estimate on the damage is about $3,500. This is the first incident of environmental vandalism experienced at the lake.

Policing seminar

One of the lake staff attended a seminar at Rend Lake College on Community Policing. The idea behind the seminar, attended mostly by law enforcement personnel, was to build partnerships, open lines of communication in the community and improve communication skills.

Indian remains

By Dawn Kovarik, Park Ranger

Cultural resource field surveys conducted by Consolidated Coal Company at Rend Lake have led to the discovery of American Indian remains, as defined by the Native American Graves Protection and Repatriation Act (NAGPRA). This is the first time the St. Louis District has encountered and implemented PL101-601 on District project lands.

During excavation of a known archaeological site, as required in conjunction with long-wall mining operations, a jawbone and long bone were discovered in one of the excavation pits. As required by law, all American Indian tribes must be notified of the find. Since notification, 12 tribes have made claims to the prehistoric bones.

Corps of Engineers representatives from ED-Z (the Corps' major command center of expertise for curation and NAGPRA issues), PPM-EA and Rend Lake Project staff members assisted with the removal of the human remains. The remains were transported to the Illinois State Museum and will reside there until negotiations with the American Indian tribes have concluded.

Disposition of the remains will be one topic of the general coordination meeting between our MCX and the various tribes in 1999. Conclusion of the excavation of the archaeological site is slated for summer 1999, when long-wall mining begins.

A bill will be submitted to Consolidated in accordance with a 1987 MOA between them and the Corps, which states that Consolidated is required to compensate the government for damages incurred during mining operations.

Mark Twain Lake:

Boat shows

January and February are planning months for many outdoor recreationists.

Cabin fever begins to set in after the holidays and folks can not wait to get outside. Boat and recreation shows during the winter months draw in many of our customers who are planning their 1999 recreation season. These shows are a great forum to disseminate information on the Corps functions and facilities in the area. Lake Staff will be attending the following shows:

January 22, 23 &24
Columbia All Sports Show
January 23 &24
Quincy RV & Sports Show
February 9-14
St. Louis Boat Show
February 25, 26 &27
Quad Cities Conservation Alliance Show
February 26, 27 &28
Springfield Illinois All Sports Show
March 5, 6 &7
Central Illinois Recreation Show-Peoria

Park Ranger Rob Gramke talks to a boat show visitor about Corps lakes.

NRRS

Fishing is always a hot topic at the shows, but this year we will also have the opportunity to inform the public of the new NRRS system. The National Recreation Reservation Service (NRRS) is a new system that allows a customer to call toll free 1-877-444-NRRS to reserve

(Continued on page 4)

News Briefs (cont.)

a campsite at Corps, Forest Service, and BLM campgrounds. Mark Twain Lake will have 252 campsites, shelters, and group camps on the NRRS system. The system will begin March 1, 1999.

If you get a chance, please stop by our booth at one of the boat shows this winter.

Turbine contest

Approximately 150 students participated in a contest sponsored by the U.S. Army Corps of Engineers at Clarence Cannon Dam and Mark Twain Lake. This contest is intended to promote engineering skills and environmental awareness in students. The students are provided contest guidelines and basic materials to get them started. They combine their creativity and ingenuity with locally available materials such as plastic spoons, coffee cans or maybe pieces out of a constructo-kit to design a functioning turbine.

Park Ranger Brenda Henry helps test a turbine.

During the testing of their turbine, students are allowed one gallon of water with sixty seconds time to see how many volts of electricity they can produce. The turbines are tested by using computer analysis and the turbine generating the greatest amount of electricity is the winner. The overall winning team, consisting of Steven Christopher, Josh Cross, Drew Reams and Drew Sharp, were from Sturgeon R-5 Middle School in Clark, Missouri. Second place went to a team from Madison C-3 Elementary in Madison, Missouri and third place went to a team also from Sturgeon Middle School.

The overall-winning turbine will be on display inside the Clarence Cannon Dam Visitor Access Area for the 1999 recreation season.

Rivers Project:

Eagle events

For an indoor close up look at an American Bald Eagle and viewing the eagle in its natural outdoor environment, the following events are being held:

The Masters of the Sky event will feature the American Bald Eagle, but will be joined by a number of other birds of prey. As in past years, owls, hawks, falcons, and vultures will awe audiences as the World Bird Sanctuary presents each bird, their amazing facts, and releases some for free flight over the audience during this indoor program.

This year's event will be held at 10:00 a.m., 12:00, 2:00, and 4:00 p.m. on Saturday and Sunday, January 23 and 24 in downtown Clarksville, Missouri, and February 6 and 7 in Alton, Illinois, at the National Great Rivers Museum (Visitor Center at Melvin Price Locks and Dam). A $2.00 adult fee and a $ 1.00 child fee will be charged, with proceeds going to the World Bird Sanctuary for rehabilitation and habitat enhancement.

The Missouri Conservation's 20th Annual Eagle Days event in Clarksville, Missouri, is scheduled for Saturday and Sunday, January 30 and 31. Live eagle programs will begin each hour on the hour from 9:00 a.m until 4:00 p.m. at the Apple Shed. Also featured are exhibits and videos at the Apple Shed, displays and children's activities at the Elephant Building on the corner of Howard and Front Streets, and outdoor eagle viewing along the riverfront.

These eagle events are being sponsored by the Missouri Department of Conservation, the Rivers Project - U.S. Army Corps of Engineers, the World Bird Sanctuary, and the Illinois Department of Natural Resources. For more information call: the Riverlands - Clarksville Office at (573) 242-3724 or the Rivers Project at (888) 899-2602.

Carlyle Lake:

New trail

A trail that allows visitors to travel safely from Dam West Beach/ Boat Ramp Area to the Dam West Campground is now complete and available for the 1999 recreation season. The trail reflects the partnership between the Corps and the West Access Marina. Marina staff completed a portion of the trail that runs through the marina.

Inmates from the Greenville Federal Prison Camp completed the remainder of the trail. This project and other unfunded projects are achieved through the memorandum of agreement between the Corps and the Federal Bureau of Prisons, Greenville Correction Facility.

News Briefs (cont.)

Christmas town

The Carlyle Lake staff, along with the Christmastown USA Committee, hosted the kickoff to the Christmastown Celebration on December 4th at the Carlyle Lake Visitor Center. The festivities included caroling, lights, crowning of the snow princess and refreshments.

Wappapello Lake:

Safety MOA

A Memorandum of Agreement (MOA) has been signed between the Corps of Engineers (St. Louis, Little Rock, Rock Island, Kansas City and Memphis Districts), Missouri Highway Patrol, and Missouri Water Patrol. The purpose is to promote safety education/awareness on Missouri waterways and highways. This partnership provides a mutually beneficial opportunity for each agency to revolutionize the effectiveness of their safety/awareness programs.

From the MOA a Challenge Cost Share Agreement (CCSA) has been established between the Corps of Engineers (St. Louis, Little Rock, Kansas City and Memphis Districts), Missouri Highway Patrol and Missouri Water Patrol. The purpose is to promote safety education/ awareness on Missouri waterways and highways by placing ten safety billboards throughout Missouri each year for the next five years. The goal of this unified safety team is to save lives whether on the waterways or highways.

In accordance with the terms of the MOA, Wappapello Lake will schedule a partnership meeting in late February or early March 1999. All state, federal and local agencies that have a safety message will be invited. This meeting will provide an opportunity to open the lines of communications and develop partnerships.

Information on this partnership and the history of Ranger Willie B. Safe is available on video. If you would like a copy, please contact the Wappapello Lake Project Office at (573) 222-8562.

NRRS

The staff at Wappapello Lake is in the process of mailing out information about the NRRS to past campers and pavilion users. We are trying to be proactive instead of reactive so that we may "better satisfy the customer."

Shortcuts speed-up work on the web

Web browsers have a number of built-in features that can speed up your work on the World Wide Web. Wall Street Journal technology reporter Lee Gomes says these shortcuts work on Netscape's Navigator and Microsoft's Internet Explorer.

* Open up multiple windows. You could download information from one site, while searching another.

Usually, if you click on a link with the left mouse button, it dumps that page and loads the new one into the same window. BUT if you right click on the "Open new window" option that pops up on your screen, the first window stays intact. But a second window opens up for the new page.

Mac users can hold down the command (Apple flower) key while clicking.

* To switch back and forth between multiple windows, you can use the task bar in Windows 95 or 98, where each window is represented by a separate button. You can also hold down the "Alt" key and then press "Tab" to rotate through your open windows and anything else running in your computer.

When you have multiple windows open, clicking the "X" in the upper right just closes that one window. It doesn't shut down the browser. (PC)

* The right mouse button does other navigation tricks. Right-click anywhere on a page other than directly over a link, and a pop-up menu appears with a choice for "Back" or "Forward."

Mac users simply click and hold anywhere on a page to get a pop-up menu that says "Back" or "Forward."

* Keyboarding: Go quickly down a Web site a full screen at a time by hitting the space bar/ the "Page Up" and "Page Down" keys. The arrow keys will take you up or down a page line by line.

* Searching: To find a word or phrase on the web page, type "Control-f," or click "Find" in the "Edit" menu. Both commands prompt you for the search phase. (Mac or PC)

Strauser course (continued)

The following is her account of the two-week course:

"The first week entailed understanding the fundamentals of U.S. offensive doctrine and tactical concepts of offensive operations. We learned the organization and capabilities of Armored Division Combat Service Support units and the system for organizing and providing combat service support for tactical combat operations. In addition we were taught the engineer battlefield function of mobility, countermobility and survivability, and how to apply the principles in tactical situations.

"One of the more career-applicable classes to me was the terrain analysis class. Here we conducted an analysis of the terrain from a military perspective with a view to understand how terrain can be utilized/manipulated to our advantage. Activities included utilization of a computer assisted terrain evaluation system called TerraBase II to analyze an area of operation. This specific program used digital elevation data to create 3D views and evaluation of surface configuration.

"We continued to learn how to conduct an engineer battlefield assessment, including friendly and enemy mobility, countermobility and survivability, and determine threat courses of action, and how to apply military decision making to a tactical situation. We developed facts, assumptions, conducted mission analysis, and developed a mission statement. We then went on to engineer defensive planning-obstacle integration doctrine and survivability doctrine. We learned how to write and brief an engineer company operations order.

"Week two. This part of the course included the technical engineering product. Course work consisted of different methods of soil stabilization, classification, compaction, specifications, and cost of stabilization additives. A class in basic hydrology was included that taught runoff estimation, drainage basin delineation, flow paths, and erosion control in support of ditch and culvert design.

"We also applied the project management critical path method to several construction directives. This involved preparation of a critical path logic network, determining the best technology (method of construction), scheduling, and working with resource constraints.

"The final class concentrated on the practical application of assessing environmental-related risks when performing all previously learned activities. This exercise employed a risk-management work sheet to document and track risk. These environmental risks were then incorporated into an operational plan.

"In summary," said Mrs. Strauser, "this was an intense, information packed course! As a civil engineer, and a DoD civilian employee, this was a definite benefit to my training program and career development. I gained a civilian perspective into military engineering and planning, as well as a technology exchange between the Corps and the Engineer School. This course has most certainly enhanced the 'One Corps, One Regiment, One Fight' philosophy. It is my opinion that many civilian employees can benefit from this course, especially anyone that has a military customer or produces support products for the military."

Computer assisted terrain evaluation.

Defense Travel System (DTS)

If you think our travel system is automated now..., just wait 'til we are under the DTS.

What is DTS?

The Defense Travel System was established in 1995 as part of Vice President Gore's National Performance Review (NPR) initiative to reinvent government. The DTS mandate calls for a new automated travel system for all DoD travelers that better supports commanders and their missions, costs less and improves the efficiency and quality of travel services.

The first phase in establishing DTS began with a review of how the current temporary duty travel system was set up. Currently, each service and defense agency/activity operates travel services independently of one another. Under DTS, the Military Traffic Management Command (MTMC) will become DoD's single manager for all travel service contracts. Most commercial travel service contracts are currently structured along geographic or regional lines. The procurement of future contracts will be similar in that respect, but DoD contracts will be standardized.

Ten Defense Travel Regions (DTRs) were proposed for the continental United States (CONUS) and two for overseas (OCONUS), with each region implementing at scheduled times during a three year period. DTR 6 was chosen as the first region to implement. There were several reasons why DTR 6 was selected. One reason was because it included components representing each of the services and several defense agencies and activities. Another reason was because current travel contracts within this region were among the first coming up for expiration. This provided ideal opportunities for phasing locations into the new system without having to terminate contracts for government convenience, which would result in unnecessary costs to the government.

The DTR 6 contract comprises 11 states in the upper Midwest and some organizations located outside DTR 6. The 11 states are: Michigan, **Illinois**, Indiana, Iowa, Kentucky, Nebraska, **Missouri**, North Dakota, South Dakota, Minnesota and Wisconsin.

St. Louis District is within DTR 6, which means we get to be one of the first to use the new system.

Here are some travel changes we can look forward to in the very near future.

* The system will allow the traveler to create a trip record and make their own airline reservations, hotel and rental car arrangements through the use of a Web based travel system. A software program called Travel Manager Plus will interface with the system, allowing the traveler to print the itinerary (trip record).

* The system will require the use of a digital signature card.

* The traveler will use their government credit card to purchase their own airline tickets, but a Centrally Billed Account (CBA) will still need to be maintained by the agency for those travelers that do not have credit cards.

* It will be made mandatory that travel checks be reimbursed to the employee under Electronic Funds Transfer (EFT).

* Information will need to be preloaded into the system, which would include information on each employee. At the present time, The system does not interface with CEFMS, but it is expected that in the future it will.

* One week of training will be given 60 days prior to implementation. A group of trainers will come to the District and conduct training for those initially affected.

As you can see, once we are on this new system, it will be even more important for travelers to have their own government credit card.

WHEN ARE WE SCHEDULED TO START USING THE DEFENSE TRAVEL SYSTEM?

Initially we were told that we would be implemented into the new system in May 1999. There have been several unexpected delays, and we have not yet received a confirmed date. From information we have received via the web, it appears we will not be able to use the new system until February of 2000.

But don't worry. That time will be here before you know it.

We will be keeping everyone informed and pass along the information as we receive it, either by e-mail or via the ESPRIT.

Or, you can keep yourself updated via the internet at the following website: http://www.dtic.mil/travelink

Some of our District's recent award winners

St. Louis District people tend to win a lot of awards. That's just the type of people we have here.

Here are some of the latest award winners. There awards were presented at the Staff Meeting on 9 December.

Mat Hunn and Ken Koller receive Commader's Awards for Public Service for work for theRock Island District.

Charlie Johnson, LM, receives his award as Logistician of the Year for MVD.

Emmett Hahn, Roger Hayes and Jake Scanlon receive plaques acknowledging their work during the aftermath of Hurricane Georges.

The CEOP Team members Jim Brown, Dennis Fenske, Ginny Mueller, Pat DiBello, Cindy Morales and Lawrence Williams receive District trophies for their hard work on the District's CEOP presentation.

Christmas is a time for giving

Year after year the St. Louis District has proven that it's no slouch when it comes to caring and giving. This Christmas season nothing has changed. Again the District "adopted" families who faced unfortunate circumstances. We treated our adopted families to some of the things that would help them have a joyous Christmas.

This year the District donated Christmas gifts to the first grade children in our long-time employee Daisy Fisher's classroom. She is the first grade teacher of the selected class at Froebel School in St. Louis. She coordinated the timing and location of the deliveries.

ED, PM and HR (helped by RM) each took a family to help.

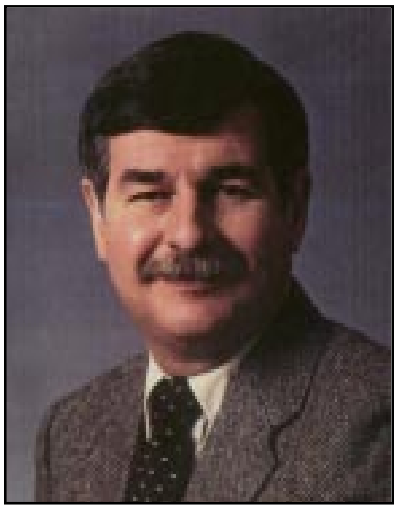
They gathered donations from the District, bought gifts and delivered them to the children and their families on the afternoon of December 18th at the school. Here you see the result of your generosity. Once again the St. Louis District has made a difference in the lives of others.

CEFMS and you

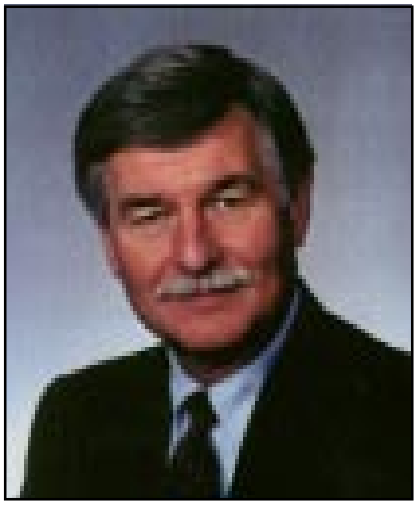
The impact

Before CEFMS

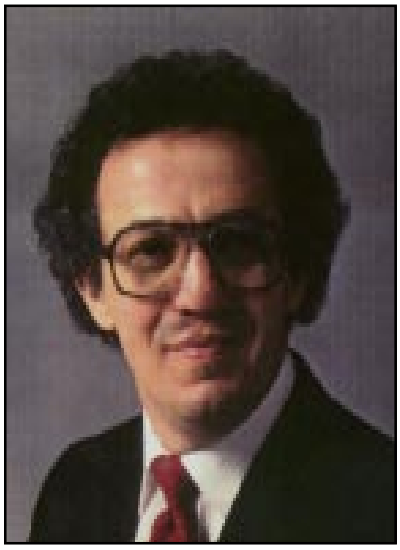
After CEFMS



Before CEFMS



After CEFMS



Before CEFMS

AFTER CEFMS

Before CEFMS

After CEFMS

It's happening to all of us, a result of the stress caused by CEFMS. No cure has been found to date, but we're working on it. Until a cure is found we'll have to rely on Rogain and Grecian Formula.

MV Boyer crew make another rescue

On October 28, 1998, the St. Louis District's hydrographic survey boat M/V Boyer was conducting an Out-Draft Study for the Applied River Engineering Center (AREC) about a mile upstream from Lock and Dam 25.

At about 2:45 p.m., Lockman Roger Groner radioed the M/V Boyer for an emergency rescue of a pleasure boat that had lost its steering capability. The vacuum-like effect of the open tainter gates was drawing the distressed boat dangerously close to the dam.

After receiving the call, the crew of the M/V Boyer, Joe Burnett and John Naeger and AREC representative Dave Gordon immediately responded to the call. After quickly securing their in-water equipment, they made a high-speed run for the dam and were able to catch and secure the distressed boat within 200 feet of the face of the dam.

The three elderly gentlemen aboard, from Raymond, Illinois, were greatly appreciative of the rapid response and effort that was demonstrated by all involved. The M/V Boyer proceeded to lock through and tow the disabled boat to the nearest docking facility downstream. One of the passengers of the disabled vessel said he felt better knowing his tax dollars were being put to good use.

The immediate coordinated effort between Lockman Groner and the crew of the M/V Boyer may have prevented a near tragic accident. This effort further symbolizes the Corps' Vision Statement of teamwork, responsiveness and reliability.

This is the second time in 1998 that the crew of the M/V Boyer has rescued a vessel in distress.

Quote of the month

Life's most urgent question is, "What are you doing for others?"

Martin Luther King, Jr.

Flashlights used to house bombs

This is an alert from the U.S. Air Force Office of Special Investigations.

There has been a recent increase in the use of flashlights as housings for explosive devices in the United States and its territories. Essentially, individuals have been booby trapping flashlights and leaving them at crime scenes, bomb and arson scenes or where their intended victim will find them. To date, these devices have killed one law enforcement officer, injured several others and injured a number of civilians.

The flashlights are generally metal, like the mag or kell lights. The batteries are removed and a small pipe bomb is inserted into the housing. The bomber then rigs the flashlight in one of two ways, either wiring the flashlight to explode when the switch is activated or setting the bomb to trigger if it is moved, by use of a purchased or improvised mercury switch. A Mag light rigged with an improvised motion switch claimed the life of a Puerto Rican peace officer.

During the conduct of a crime scene search, or in any circumstance when a flashlight is encountered where it is not expected, leave the light alone. If no owner can be found, contact a local bomb squad. Do not pick up or examine the light yourself. There have been about 20 of these flashlight bombs found in the past year.

Was the Great Flood of 1993 all that great?

By Gary R. Dyhouse, Chief Hydrologic Engineering Section

Man has always been drawn to nearby rivers, and the first colonial settlers at St. Louis were no exception. St. Louis dates its history to 1763, however settlers had been in Cahokia, Illinois, even earlier.

It was only normal that some fragmentary records were kept of notable floods, beginning with one in 1735. Early settlers experienced another large flood in 1785, which was sufficiently bad to cause the village of Ste. Genevieve to relocate to its current site after being completely flooded.

The 1844 event has always been considered the granddaddy of all Mississippi floods. This flood covered the entire Mississippi flood plain to depths of 10 feet or more from the St. Louis riverfront to 10 miles east, at the Illinois bluffs near Collinsville and Caseyville. The severity of a flood is measured by its peak discharge, but the 1844 peak was not even estimated until about 1904.

Comparisons with the second largest flood occurring at St. Louis in 1903 resulted in the "official" estimate of the 1844 event as having a peak flow of 1,300,000 cubic feet per second (cfs). The 1903 flood also was not measured, but later estimated as having a peak discharge of 1,019,000 cfs. No discharge measurements were taken for any of these floods and all we really know are the approximate dates and highwater marks denoting the maximum height the flood reached at a certain location. By comparison, the peak of the 1993 event was accurately measured by the US Geological Survey as 1,070,000 cfs, the only flood since the 1903 event to exceed one million cfs at St. Louis.

Records (river elevations, or stages) began to be collected on a continuous basis at St. Louis, Missouri, in 1861, at the start of the Civil War. Depth, cross-sectional area and velocity measurements were taken to estimate the water discharge at intermittent times throughout the rest of the century and recorded. However, these published discharge values are the result of a variety of measurement techniques.

The Corps took most discharge measurements at St. Louis prior to 1931, after which the US Geological Survey fully took over this task. The methods that the Corps used to obtain velocity measurements varied significantly from 1861 to 1931. Surface floats, single and double floats (Figure 1), rod floats, and various meters were used. Meter measurements were taken from barges or boats, which are subject to water movement, and from bridges. Only after 1931, with the USGS performing the discharge measurements at St. Louis using the Price Current Meter (Figure 2), have homogenous and reasonable accurate flood discharge measurements been available.

Because of the variety of gauging techniques giving significantly different flow values, published peak flood discharges prior to 1931 have been suspect for some time. Over the past 25 years, these old data have resulted in outside groups and individuals making comparisons of these inaccurate, historic discharges to modern flood data and drawing wrong conclusions about the impacts of Corps projects.

Engineering studies in recent years, using both the physical model of the Mississippi Basin constructed by the Waterways Experiment Station and sophisticated computer models developed by ED-HE, have shown that historic flood peaks of 1844 and 1903 are significantly

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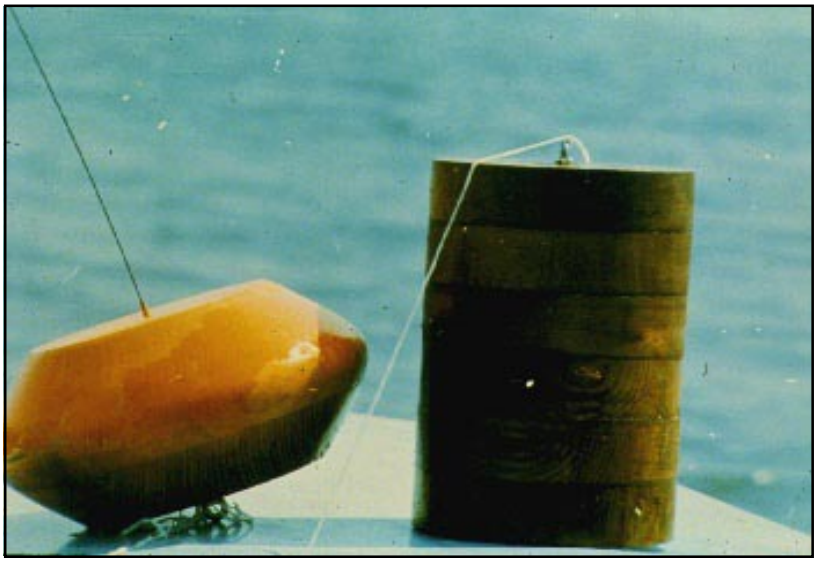

Figure 1

Figure 2

over-estimated and much lower than the published values. The table shows the "official" and the adjusted values for these two events. Since the USGS is the official source for maintaining and publishing hydrologic data, that agency was advised of these findings and is currently studying the modification of their records. These revised values may be included in USGS publications as early as 1999.

From the work done to date, it is obvious that the discharge and stage of the 1993 flood was the greatest in the known history of Mississippi floods at St. Louis, dating at least to 1735, and can truly be called a great flood. While evaluation of historic discharge data has been confined thus far to only the 1844 and 1903 floods, the published discharge data of all other floods at St. Louis prior to 1931 are also likely to be too conservative. This fact makes it even more unreasonable for private individuals and groups to compare flows and stages from floods in 1973 or 1993 to floods occurring in 1844, 1903 or other historic events.

In the past, these types of comparisons have resulting in statements that "the Corps has made small floods into big floods", when the mistake has been in the erroneous comparisons of floods separated by decades, different river conditions, and accuracy of discharge estimates. If one wanted to see what the Corps' impacts on floods are, a comparison of the 1993 event as it actually occurred and what it would have been without the Corps reservoirs upstream is enlightening. Without Corps reservoirs, the Great Flood of 1993 would have had a peak discharge at St. Louis of about 1,285,000 cfs (20% more than actual) and the peak flood stage would have been three to four feet higher. It is very likely that the urban flood protection projects (Figure 3) on both sides of the river at St. Louis would have been overtopped, with additional damage measured in the many billions of dollars.

Figure 3

Year	Published Value (cfs)	Adjusted Value (cfs)
1844	1,300,000	1,000,000
1903	1,019,000	875,000
1993	1,070,000	N/A

Figure 1: Reproduction of a float
Figure 2: Price Current Meters
Figure 3: St. Louis Floodwall at the Service Base

To your health

Here's how to protect your colon

New York doctors reported brisk demand for colon exams the week after Yankee baseball star Darryl Strawberry was diagnosed with colon cancer.

The exam is a wise move, since colon cancer, a leading cause of cancer deaths, can be detected with a simple test. In its early stages, the disease has no symptoms and is very curable.

Prevention is the best medicine. Conventional wisdom by the American Cancer Society says you can be kind to your colon by eating a low-fat, high-fiber diet, plenty of fruits and vegetables and by being physically active.

If you have risk factors like a personal or family history of colon cancer, polyps, or inflammatory bowel disease, you may want to take further steps. Here are some tips gleaned from recent research:

1. Taking a daily multivitamin with folic acid could reduce the risk of colon cancer by as much as 75 percent, according to Harvard School of Medicine. Those with such a high risk reduction had been taking multivitamins for 20 years. Taking it for a much shorter period had a risk reduction of 20 percent.

2. Studies reported in the Journal of the American Medical Association show that calcium in the diet is given credit for many cases of abnormal pre-cancerous cells returning to normal form.

3. The American Cancer Society reports that estrogen replacement therapy and aspirin may also reduce colon cancer risk.

Whether or not you appear to be at risk, taking a vitamin pill every day can't hurt. Getting a simple test is a great idea. Eating a well balanced diet is always advisable. And if you are taking an aspirin a day for heart health, you may be one step ahead in colon cancer protection as well.

About 50,000 people in the U.S. died of colon cancer in 1998, almost half of all cases diagnosed.

New arthritis treatment

Scientists have a new understanding of how rheumatoid arthritis (RA) works. With this knowledge, drug makers have developed medicines that attack different facets of RA.

Arva, a new drug by Kansas City's Hoechst Marion Roussel, stops white cells from reproducing.

Enbrel, by Immunex in Seattle, sops up the tumor necrosis factor and limits pain and inflammation. Enbrel is available now.

A blood-filtration system by Cypress Bioscience of San Diego removes proteins from the blood that tell white cells (erroneously) what tissues to attack. The filtration system is so effective the FDA put it on the fast track for approval.

None of these is a cure, but they slow the progress of the disease.

Stop middle age spread

Want to keep your waistline and still eat as you do now? Researchers at NASA/Johnson Space Center in Houston say walking two miles a day will make it happen. It was true for men and women employees who weighed 180 and 150 pounds respectively (about age 40). The magic number was 16 miles per week. If you weigh more, you can get away with fewer miles because you burn more calories. Weigh less? Walk a little more.

Antibiotics not for colds

Studies reported in Clinical Infectious Diseases show that cold symptoms are not caused by the cold virus, but by the immune system's response to it. The viruses provoke a massive immune response, including an increase of certain types of immune cells that may add yellow or greenish color to nasal discharge.

Antibiotics do not kill cold viruses. Only complications like bronchitis or ear infection should be treated with antibiotics. Don't ask for them unless you have cold complications.

Retiree Review

By the Retiree Correspondent

The December retirees luncheon was its usual great event. Although there weren't many in attendance, they had their normally entertaining good time.

Bill Sutton and Rich Mills mentioned that they seem to be "eating their way through the area." They had breakfast with S.A.M.E. at the Engineers Club up the street, and now they were having lunch here at the Salad Bowl. If only they could find someplace to have dinner, between the Salad Bowl and South County, they would be set. Bill also mentioned that Mike Houser had made a great presentation at breakfast. Mike had recently spent about two weeks in Russia and had a wonderful pictorial presentation of his trip. Bill recommended that Mike make the same presentation to the retirees.

Bob and Barb Lutz said they had just returned from a trip taking "Gift Boxes" to the underprivileged children in the Carolinas. It was a way of bringing some joy to those less fortunate. They said they have done this every year for a number of years. Bob also mentioned that the Division golf tournament has been set for June 17 & 18 at Rend Lake. Details should be available when the golf league gets underway.

One of the old-timers, Les Arms, came out of the woodwork. He was "Mr. Mapping" of years ago. Les told about some of the "devilment" that he and some of the other members of the old Surveys Branch were involved with. They seemed to make life rather interesting in those days. Les claims that much of his "devilment" came from flying bombers in WWII and seeing to much flack. Sounds good Les, but how do you explain why the others had some of the same ideas, since they were never in an airplane?

The question about the Senior Retiree drew some discussion as to when does someone retire - when they quit working or when they leave their gainful employment. John Jansen said that there is definitely a difference. He said that he quit work about one year before he left gainful employment. He also mentioned that there are probably many others who have been and/or are in the same situation, but are reluctant to admit it. As for retiring, John said he has been thinking about it for some time, especially now that bad weather is just around the corner. All four of his tires are rather bald and should be "retired." Bob Maxwell walked off with the title of Senior Retiree, having retired in 1972. (Wow, that's a long time ago. Even long than some of the current employees are old.)

The staff of the Salad Bowl provided some entertainment, in appreciation of the retirees faithful appearance each month. The retirees joined in the singing and thanked the "Staff."

There were several story tellers: Charlie Denzel, George Clapp and Pete Puricelli. In addition, John Jansen provided a little song about his "Sunday pants."

Don Wampler said he received word from Len Alfeld. He is living the life of a very busy retired bachelor. Many of the retirees said, under their breath, "He's LUCKY."

Mention was made of the pending retirements of Mike Houser and Ben Hawickhorst, and the retirees extend a welcome to them to attend the monthly luncheons, when their schedule allows.

It was also mentioned that two of our recent retirees passed away: Bill Hoff and Bill Kirk. Our condolences to their families.

The January luncheon is scheduled for the 21st, the third Thursday at about 11 a.m. at the Salad Bowl. Let's see if we can have a few more in attendance.

Alcohol: Not the best nightcap

People who have a hard time getting to sleep may think an alcoholic drink or two will help.

That's completely wrong, according to the Sleep Disorders Clinic at Stanford University. Alcohol may put you to sleep, but give you "rebound insomnia" a couple of hours later.

Research shows that alcohol not only shortens the hours spent sleeping, it also disrupts patterns of sleep. Normally, the night is spent moving in cycles between deep sleep and active sleep when dreams occur. But with alcohol use, the cycles are not the same.

Alcohol appears to affect serotonin, which regulates sleep onset and deep sleep patterns. It also affects norephedrine, which regulates active sleep and arousal.

Drinking also makes breathing more labored, and it increases snoring and episodes of sleep apnea.

Stanley Coren, in his book Sleep Thieves, recommends evening snacks of carbohydrates and milk, both of which contain tryptophan, a relative of serotonin.

Technology lets you learn from afar

If you have always wanted to get that master's degree, but never had the time to pursue it, at-a-distance-learning could be just right for you.

Edward Goldberg, director of Seton Hall's distance-learning program, Setonworldwide, believes it offers several advantages over traditional course work. Shy students find it easier to participate, there is less favoritism and discrimination in the more anonymous setting, and students can do their classroom work when they're at their best.

Would you miss exchanging ideas and forming bonds with instructors and fellow students? Rosemary Carlson, a professor of finance at Morehead State University in Morehead, Kentucky, says no. With e-mail, chat rooms and other forms of electronic communications, Carlson says, students and faculty can mingle and brainstorm just as effectively and perhaps more effectively than they can face to face.

One manager recommends the MBA program at the University of St. Thomas in St. Paul, Minnesota.

He was surprised by the many opportunities for networking. Students gathered in the Twin Cities for orientation each term. They can join online discussion groups at any time or enter a student-lounge chat room to socialize. Instructors are reachable by e-mail and an 800 number and are required to respond to student inquiries within 24 hours.

Don't take a distance-learning course unless you have self-discipline and are a self-starter. But for people who have these qualities and cannot attend traditional school, distance-learning is very attractive.

The District has its own distance-learning center at the National Great Rivers Museum, which is the Regional Visitors Center at Melvin Price Locks and Dam. The center was acquired through a challenge cost share agreement with Lewis and Clark Community College. The center was test-operated in August, began formal programming after the start of the new fiscal year and is currently working with several school districts in our area.

Earth Notes

Three Rs grow to four

Reduce, Reuse, Recycle ... and Rent? Yes, renting seldom-used items instead of purchasing them has financial and environmental benefits. The cost of renting a brush chipper is about $95 a day. Buying one, however, costs $1,200 or more. And if you use it infrequently and fail to maintain it, the chipper will end up in the landfill within a few years.

Seldom-used equipment, musical instruments the kids think they want to play, dishes for a big crowd, and many other items are good rental choices. Natural resources are used in the production of these items. Add the energy savings from not maintaining and storing the items plus the cost of disposal, and renting makes a lot of sense, say authorities at the Central Indiana Solid Waste District.

Environment online

Check out www.epa.gov/ceis to get up-to-date information about your community's environment. All you have to do is enter your zip code.