

ST. LOUIS ARMY ENGINEER DISTRICT

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St. Louis District's Lock 24 Gets a Renewed Lease on Life



Lock 24 at Clarksville, Mo., 600-feet long, 110-feet wide, 35-feet deep — and very empty, during closure for major rehabilitation.

With the approaching onset of spring and summer, construction to repair and expand the nation's highway network will begin anew. Motorists will be inconvenienced. In some cases they will be diverted to alternate routes as work goes forward. The work will span the spectrum from major interstate highways to state, county and municipal roads.

But another delay — this one to the barge navigation industry that uses the nation's major interstate river thoroughfare, the Mississippi River — will come to an end when the U.S. Army Corps of Engineers reopens Lock 24 at Clarksville, Mo. on March 14.

"It's absolutely the worst time of the year to do this kind of work," said Lockmaster Chris Morgan on a blustery February day, looking down into the bottom of the 600-foot long, 110-foot wide, 35-foot deep lock chamber. Hardy construction workers cleared debris from the floor of the structure as he spoke. "But it's the only time we can do it."

What Morgan referred to was the need to carry out essential work during the winter to minimize the impact of this work on the lock's major user, the river navigation industry.

Lock 24 — one of a series of such structures on the Mississippi, and the northernmost in the St. Louis District — is normally a busy place. Last year almost 39 million tons of river traffic passed through the lock. The lock lowers southbound vessels and raises northbound counterparts as they move downstream and upstream.

Last year more than 6,200 lockages were conducted at the aging facility. Some lockages were of individual

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Commander's Perspective



COL Kevin Williams

As I consider my words for this month's *Esprit*, U.S. and coalition forces are locked in bitter combat in Iraq. We have sustained casualties including dead and wounded. Iraq has taken other members of our forces prisoner. We are assured of the ultimate outcome - victory - but the road ahead will be difficult.

Our Commander in Chief has called this the Global War on Terrorism. It is a war unlike any other our nation has fought.

It doesn't always involve nations. Rather, it is between people who have freedom to think, speak and act as they wish and others who don't like those freedoms and think everyone should think and act by their rules.

It is also a war that involves our entire nation. It is not just touching the men

and women of our active forces and their families. Reservists and National Guard personnel - our doctors, truck drivers and policemen - are being called to active service. Civil Service employees are also being called to fill key support positions or to prepare for the aftermath of whatever may come.

From our own St. Louis District family, we have people who most of you know well, serving in the Central Command region or away from home: former DE Colonel Mike Morrow; former DD Major Ben Bigelow; Jennifer James from our Ordnance and Technical Services Branch; Jerry McClintock, who is also detailed from ED-P and Mike Quinn, who works at Lock and Dam 25. Others have been or soon may be tapped to serve as well.

We entered this complex situation unwillingly when we were attacked on September 11, 2001. But that doesn't mean that we will shirk our responsibility to respond. A popular bumper sticker says it well: "These Colors Don't Run."

What can we do here in the District to support this effort? We all need to continue to do our job the best we can. What we do here helps support our nation's economy, which in turn underpins our other strengths.

As a district family, the Civilian Affairs Council sponsored an immensely successful effort to collect, package and send off a huge supply of homemade cookies. These cookies are going to our special colleagues named above, and I'll guarantee, there are enough for them to share so others will know of the generosity of the Corps family in St. Louis.

Finally, think of these people and all the others who are defending our freedoms daily. Send them kind wishes; include them in your prayers - however you choose to support them in your own heart. They are making incredible sacrifices for us all. We owe them nothing less than our best in return.

Essays!

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Lock 24 cont. from page 1



The new lock operating machinery has been raised above the lock wall to prevent any possible flood damage.

pleasure craft, but the majority were 1200-foot commercial tows of up to 15 barges in a “three by five” configuration — three barges wide and five long — plus the towboat, which actually pushes them from behind.

Corps locks are the focus of continuous programs of preventative maintenance and improvements. But Lock 24 — completed in 1940, with a 50-year expected life — needed more extensive work than could be accomplished through routine maintenance.

Dam bridge piers were cracked and deteriorated. Major electrical equipment was outdated and worn. The culvert valves, which control the flow of river water into and out of the lock chamber, needed to be replaced. The auxiliary gate at the north end of what would have been a second chamber if it had been built, needed to be replaced to ensure our ability to maintain the navigation pool.

And finally, the concrete walls of the lock chamber were deteriorated badly. According to Program Manager Brian Kleber, “We sat down with the navigation industry several years ago and explained to them why we needed to do this work. We promised to minimize disruption to the industry. We agreed on

closing the lock each winter over three years.” Kleber continued, “They’d rather that the lock was never closed, but winter is the best time if we have to, because icing to the north limits navigation during most winters anyhow.”

Work has gone forward in a series of phased operations. The \$35 million

project began in August 2001 with selection of the Illinois-Missouri construction consortium of Midwest-Massmann using the best value acquisition process vice simply seeking the low bidder.

The navigation industry is paying for 50 percent of the work through a trust fund that collects 20 cents for each gallon of fuel purchased for the tow boats.

The first year, major work included replacing the auxiliary gates, removing the closure dike that had protected them for 10 years, cutting bulkhead slots in the lock walls so the lock chamber could be dewatered and major electrical work.

This year work continued, including preparing for the first dewatering of the lock chamber in more than a decade.

On December 16, the lock was closed and small diameter explosives were inserted in holes drilled into the concrete walls throughout the summer. When they were detonated they blew chunks of concrete on the interior side of the intermediate lock wall (the side separating the river from the lock chamber) into barges placed in order to protect the chamber floor. During these operations



Service Base fabricated two replacement culvert valves for Lock 24. It’s a tight squeeze removing them from the metal shop. They had to be barged to the job site.



the contractor was required to follow environmental measures to protect the eagle and fish population around Lock 24.

Lock machinery was replaced, this time on raised structures that will keep it out of the highest waters likely to be experienced. In the past, during flooding, the machinery has had to be physically removed to safety. Finally in February the lock chamber was sealed off with bulkheads placed outside of the lock gates and pumped dry.

This enabled the culvert valves to be replaced and allowed workers to remove the rubble that had fallen into the water and onto the lock floor when it had been blasted loose. "In addition, the contractor will survey the foundation floor to see if there has been any further deterioration since the lock was last dewatered in December 1990," said Larry Green, onsite Resident Engineer.

Lock 24's location was selected to take advantage of a shale formation that serves as a solid foundation for the 600 foot lock.

The demolished lock chamber walls on the intermediate lock wall have been replaced with a series of large precast concrete panels manufactured offsite and secured to the solid underlying structure.



Fox 2 broadcast, live via satellite right from the job site to inform St. Louisans about the work.



Old and new co-exist at Lock 24. New prefabricated concrete panels rest on undamaged original construction. The backhoe is removing concrete debris from previous demolition and years of accumulated silt.

Work that can be accomplished above ground and outside of the lock chamber will continue throughout 2003.

Next winter the lock chamber will again be closed to traffic. Explosive charges will be used to economically remove deteriorated concrete from the wall on the landside of the chamber and barges will again capture large concrete blocks. The giant culvert valves will also be replaced in that side of the chamber. New lock machinery will be relocated above the high water line.

"We're past the halfway point now," said Chris Morgan. "With the repairs and improvements we've accomplished and will complete by next year, I think we can safely expect another 25 years of dependable service."

The U.S. Army Corps of Engineers men and women at Clarksville have lavished a lot of love and dedication on their charge over six-plus decades. The lock in turn, has repaid their hard work.

Now in partnership with a crew of union construction workers who can and do work outdoors regardless of the seasonal extremes, Lock 24 will continue to lift and lower the nation's agricultural products and raw materials as they pass along the Mighty Mississippi.

And how have the fish and eagles fared throughout this project? The fish are obviously still there, as are the more easily discerned eagles that have continued to winter near the lock in undiminished numbers.



COL Williams hosted Clarksville's Mayor Bertha Mae Taylor. She descended the scaffold stairs to visit the floor of the dewatered lock chamber.



What Happened to the Concrete at Lock 24?

The primary reason for the deterioration of the concrete in the walls of Lock 24 is the reaction between the glacial aggregate and constituents of the Portland cement. Uh huh...

That's the reason. Really. Only it's a little more complex than that. So we called on Geotech's Ed Demsky to help us explain it to Esprit readers.

"These walls were constructed during the late 1930s," Demsky told. "They were well made and have frankly lasted a long time," he added.

But a number of forces have joined to cause a process that has accelerated in recent years.

First, we must define terms. Aggregate is the gravel in concrete. Cement is what holds it together. It's a product manufactured from limestone by heating it to an extremely high temperature. When aggregate and cement are mixed together with water and sand, and allowed to cure, the result is concrete. By the way, concrete doesn't dry - it cures. It will actually cure better under water than in air.



Concrete in Lock 24's intermediate lock wall shows obvious signs of deterioration in this file photo.

Unlike most modern concrete, made with crushed limestone aggregate, the stone used in Lock 24's concrete was what geologists call glacial aggregate. This is gravel that has been transported by ice-age glaciers and deposited as they withdrew. The individual stones are very hard and expand at a slightly different rate than the cured concrete paste that binds them together. A chip of



Deteriorated concrete had to be removed by blasting. The contractor placed a barge against the lock wall to minimize debris falling into the lock chamber.

limestone - made of the same stuff from which cement is manufactured - expands and contracts at the same rate as the cement.

So micro cracks formed in the concrete that was periodically exposed to temperature extremes. This was the concrete between the top of the lock wall and the points reached by water as the lock raised and lowered vessels. It was exposed to cycles of frigid air and relatively warmer water, and expanded and contracted. The concrete walls that remained below water are still in remarkably good condition.

In addition, today's concrete contains chemicals that form small, invisible gas bubbles as it cures. This is referred to as air-entrainment. These tiny bubbles serve as microscopic air pillows that allow concrete to expand and contract without damage. "The concrete at Lock 24 didn't have that chemical," Demsky explained.

Next, a chemical reaction occurred between the glacial aggregate and the cement product that resulted in the concrete cracking due to swelling of the cement.

Demsky also said that there was very

little reinforcing steel in the lock walls. "The original designers knew that concrete is weak under tension and strong under compression. So they added reinforcing steel in the tension stress zones, but they were not aware of the need for temperature steel. Today we use temperature steel - smaller than the reinforcing rod - to counter thermal forces in the concrete and shrinkage of the concrete during curing," Demsky explained.

All of these measures are meant to help to prevent cracking, which allows water to get in and freeze, causing cracks to widen and to spread.

Finally, the walls are consistently subjected to much greater mechanical stresses today than earlier in their lives. In the early 1940s when Lock 24 entered service, the normal lockage was of packet boats - or stern-wheelers - or small, low-powered tows. Today, 15-barge tows, pushed by powerful towboats, repeatedly punish the concrete with immensely greater forces.

So that's what happened to the concrete walls of the lock chamber at Lock 24.

Or if you'd rather, they just got old.



What! No Zebra Mussels?

A curious sidebar story to the major rehabilitation of Lock 24 at Clarksville is the near total absence of Zebra Mussels in the lock chamber.

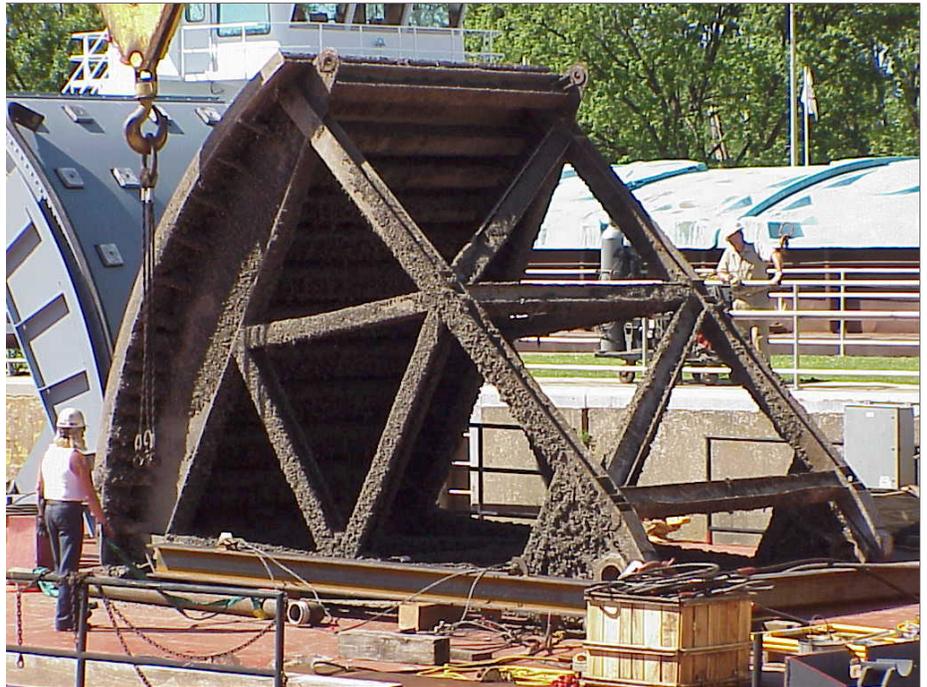
The tiny, fingernail-size shellfish were originally thought to have entered the Great Lakes in the ballast water of freighters from the Baltic sea region.

From there they have grown in numbers at an astounding rate, clogging intakes to power plants and water suppliers on the lakes and quickly moving out to establish their unwanted presence down the Illinois River Valley and into the Mississippi.

Several years ago when the culvert valves were removed to replace them at Lock 25, they were found to be heavily encrusted with tens of thousands of the pests.



A few Zebra mussels were at Lock 24, but they were very hard to find.



Zebra mussels cover this tainter valve when it was removed from Lock 25 last year. Clarksville's lock is a different story. Where did they go?

But for unknown reasons they are disappearing from the Mississippi as rapidly as they emerged. Three lock chambers have been dewatered this winter on the Mississippi, and at all locations, few, if any Zebra Mussels are being reported.

"We thought it would be a terrible mess here when we dewatered Lock 24 for the first time in years," said Program

Manager Brian Kleber. "We cautioned the contractors about what we feared would be a terrible stench as they were exposed to air."

But for some reason there were only a very few of the small shells adhered to the lock chamber wall and machinery.

"We have no idea why they have gone, but we're sure happy that they aren't there," Kleber concluded.

Concrete stands the Test of Time!

Concrete has been used in construction for over 2,000 years, perhaps first by the Romans in their aqueducts and roadways.

The Romans use of concrete was extensive — they built some 5,300 miles of roads (compare this to 4,200 miles of interstate highways in the United States).

The Romans used pozzolana cement from Pozzuoli, Italy near Mt. Vesuvius to build many famous Roman structures including the Appian Way, the Roman Baths of Caracalla, the Basilica of Maxentius, the Coliseum and Pantheon in Rome, and the Pont du Gard aqueduct

in south France. They used broken brick aggregate embedded in a mixture of lime putty with brick dust or volcanic ash to complete many structures that previously used stone construction

While Roman roads ceased carrying chariot traffic long ago, the United States has one 100 year old concrete road in Bellefontaine, Ohio, that is still in use today.

Concrete is finding more inventive uses including residential construction, works of art and even boats.

Some homes in hurricane-ravaged Florida are being replaced by concrete dwellings because of their high wind resistance.



The Roman Colosseum stands as a testament to the durability of concrete.

Several years ago, a fire decimated an entire hillside of homes in Malibu, California. All the homes were lost, except one, made of concrete.



Eagle Watching Weekend At The National Great Rivers Museum

During Masters of the Sky weekend, approximately 1,500 visitors to the National Great Rivers Museum got an Eagle-eye view of a live eagle and seven other birds of prey at the World Bird Sanctuary educational programs.

Programs were presented every other hour from 10 a.m. to 4 p.m., February 1st and 2nd, 2003. The U.S. Army Corps of Engineers at the Rivers Project and World Bird Sanctuary sponsored these programs. Visitors learned how eagles hunt for food by focusing on the movement of their prey. The eyes of an eagle resolve images six to eight times as effectively as those of humans, and their eyebrows shade their eyes for even keener vision. Eagles can see fish under water from a distance of more than 1.5 miles.



A bald eagle, our nation's symbol, poses for its audience in front of the U.S. flag.

Visitors captured Liberty, the Bald Eagle, on film as a souvenir. Turnpike - a Kestrel, Meramec - a Red Shouldered Hawk, Abby - a Barn Owl, and Rifle - a Harris Hawk awed the audience by skimming over their heads in flight between two World Bird Sanctuary presenters. Abby, the Barn Owl, wowed



Mike Ziloski, National Bird Sanctuary representative shows visitors a screech owl, describing the birds extraordinary capabilities.

the audience with her amazing silent flight ability. Turnpike found the rafters of the National Great Rivers Museum more comfortable than the arm of his trainer and took every opportunity to sneak up and rest on them during programs. Turk - the Turkey Vulture made an impression with visitors for his reputation of vomiting at predators. All visitors admired these impressive birds and their amazing abilities.

Spotting scopes were set up outside of the National Great Rivers Museum and staffed by trained Park Rangers to assist visitors in spotting eagles as they fish and roost in trees along the River.

Usually a warm bonfire is located close to the spotting scope area, however, unseasonable warm weather permitted some visitors to wear shorts to Sunday's event and the bonfire was only needed one day this year.

The Riverlands Environmental Demonstration Area is a popular resting place for other birds such as trumpeter swans and pelicans. Many visitors bring their own binoculars and spotting scopes to the area for viewing birds. A very wide variety of species are found here.

An added component of the Masters

of the Sky programs were the children's activities. Park Rangers staffed a coloring table where children could make their own eagle hat or finger puppet to wear.

Since World Bird Sanctuary programs were offered every other hour, a lock and dam tour was offered between programs. Approximately 525 visitors took the opportunity to see Melvin Price Lock & Dam up close.

This opportunity is usually only offered to visitors that make a reservation in advance. The beautiful weather made these tours a huge success. Many visitors, had never been on the tour and appreciated the chance to see the whole structure and have a birds-eye view of tows locking through.





Engineers: Transforming Ideas Into Reality

By Lattissua Tyler
Public Affairs

There are a great many kinds of engineers: mechanical, civil, electrical and computer engineers, to mention a few. But they all have one thing in common. They all convert ideas and science into the products, processes and technology that every day change the world we live in.

Founded in 1951, each year the National Society of Professional Engineers sponsors a nationwide National Engineers Week during which the society and engineers join hands to educate people about what engineers do and how they do it.

National Engineers Week's purpose is to increase public awareness and appreciation of the engineering profession.



(L) Tim Vankerkhoff (13), and his father Peter, discuss dam safety monitoring with District employees Erin Duffy, Lattissua Tyler and Travis Tutka.

The St. Louis District, U.S. Army Corps of Engineers took part in this year's program by partnering with the St. Louis Science Center. Employees from PAO and ED conducted a weekend program at the St. Louis Science Center to help answer the question of 'What is engineering?'

This event provided an opportunity for St. Louis District engineers and other professionals to reach out into their community to increase awareness and appreciation of the engineering profes-



(L) Alex Traub (6) and Britt Albach (12) both of Chesterfield, Mo. get hands-on experience building a solid bridge from Erin Duffy.

sion and to network with numerous engineering firms and educational institutions, all while telling the Corps story.

"It's our job to let people know how the Corps and engineering applies to everyday life and how it makes our lives better," said Erin Duffy an Intern for CEMVS-ED-GE. "If we don't play an active role, who will?"

"It is vital for people to understand that engineers transform ideas into reality, solve practical problems with science and technology so that products, services, and systems can better serve people's needs," said Assistant Engineering Division Chief, John Dierker. "Our nation's first president was a military engineer and a land surveyor. Engineers have built much of our past and they will build much of our future."

To deliver these messages, District experts provided dam safety and bridge building demonstrations, examples of our commitment to Environmental Sustainability and the interactive computer game, developed by USACE HQ, "Who wants to be an Engineer". This week provided a tremendous opportunity to plant a seed in the minds of millions of people nationwide—engineering is essential to life and, more

importantly, to a better quality of life.

The two-day event connected District employees to over 300 people, increasing public awareness and appreciation of the Corps of Engineers and encouraged pre-college interest in science, technology, and engineering. "I am happy to take part in honoring engineers, and am glad that the Corps could partner with us to celebrate National Engineers Week," said Jeffery Powell, Science Center coordinator.



Lattissua Tyler helps Tracy young (8) of Fenton, Mo., work an interactive computer program on engineering.



Mark Twain Lake Underwater Fish Structure Development

In an effort to improve underwater habitat for fisheries populations at Mark Twain Lake, the Mark Twain Bassmasters Club and the U.S. Army Corps of Engineers partnered to construct three underwater habitat structures. Fourteen volunteers and three Mark Twain Lake personnel braved the cold winds and ankle deep mud on March 8, 2003 to transport, place and anchor eastern red cedar trees along the shoreline to form the underwater structure.



Volunteers lash discarded cedar trees to cement blocks creating fish habitats.

Three areas were designated as development sites along the North Fork Arm of Mark Twain Lake. Materials for the project were collected from a field in proximity to the sites, and were trans-



Local volunteers pose for a photo with Corps employees. Working together, the group was able to place enhanced fish habits at three locations at Mark Twain Lake.

ported to the areas with all-terrain vehicles. Because the lake was at a lower elevation, the materials were placed along the shoreline at an approximate elevation of 600.0 feet national geodetic vertical datum (NGVD) without the aid of boats. This provided increased safety for all participants. The materials were anchored with concrete blocks and plastic coated steel wire.

When the lake reaches normal pool elevation later this spring, the habitat structures will be approximately three feet underwater. The structures will

provide escape cover and feeding areas for smaller fish, and collection zones for bigger fish.



The trees, anchored during low water, will be covered as the lake rises this spring.

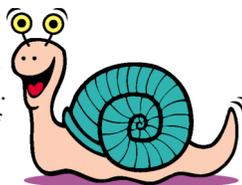
Your hearing: What's a snail got to do with it?

Blame the Greeks ... or thank the Greeks instead.

They had lots of snails and knew exactly what they

looked like. When early Greek doctors discovered a spiral-shaped cavity behind the middle ear, they called it a kochlias, which is Greek for snail.

Today that part of your ear is called the cochlea (coke-lee-a). When sound waves pass through its spirals, vibrations cause some 16,000 tiny hairs to send impulses to the brain. The problem is, if the hair cells in that "snail" are destroyed, they're gone forever. They will never regenerate.



Noise damages the ears in two ways. It can strike in an instant and cause acoustic trauma. A blast from a high-powered hunter's rifle can rip apart the ear's inner tissues and leave scars that interfere with hearing.

Damage can also develop slowly over decades because of noise-induced hearing loss (NIHL). Any sound louder than 85 decibels (dB) can be tolerated for only a certain period of time without damage.

To calculate 85 dB, consider the sound of a vacuum cleaner. At a rating of 80 dB, there is virtually no limit on the amount of time you can hear it continuously without damage.

At 90 dB, the rating for most power lawn mowers, you could suffer hearing damage after 8 hours of continuous

exposure. Other common sounds, their decibel ratings, and time limits for safe exposure are:

Power drill	100	2 hours
Rock concert	120	7.5 minutes
Jackhammer	130	3.8 minutes
Gunshot	140	none

Doctors at the League for the Hard of Hearing in New York City say this is how to preserve hearing:

- Wear earplugs when you are in a noisy environment. If you have to raise your voice to be heard when you are three feet way from someone, you need your earplugs. They reduce noise 20 to 30 dB.
- Give your ears a rest after several hours of noise. Avoid going from one loud event to another.



Reminiscences of Radio-Telegraph Operator Dan Courtney

It will be seventy four (74) years this coming October 2003 since my friend Jimmy Reppy and I visited the Service Base (called "Depot" in 1929) for the first time.

We were there to be interviewed and tested by the Chief Radio Operator Willis O. Perry (Signal Corps, Ret.) for employment as radio-telegraph operators on vessels of the St. Louis Engineer District.

We passed the code test, were considered otherwise qualified, and placed on the payroll as Boatmen - there was no Civil Service designation of Radio Operator at that time. Starting salary was \$1620 per annum while aboard the vessels but \$420 was charged for subsistence & quarters.

Ashore the salary dropped to \$1200 per annum. I recall Capt Perry telling us "Remember 24 hours a day belongs to the government, the rest of the day is yours". We thought he was kidding, but soon found out that indeed many days aboard the vessels required 24 hour duty.

My first assignment was aboard the dustpan Dredge Fort Gage, under Captain Meadows. On my first day the dredge was docked at the "depot" and I was to relieve the current operator Esmond Volz.

Esmond escorted me aboard the dredge to introduce me around and explain my duties other than radio operation, since the job included much clerical work. He suggested that we first visit the galley for a cup of coffee. As we entered, there was a violent argument in progress between the cook and one of the waiters. The cook hit the waiter on the side of his head with a large basting spoon, nearly severing his ear. Blood flowed freely. We did not get our coffee, and I wondered if I was making a mistake by taking the job. However, the "big depression" was taking hold and jobs were not plentiful, so I decided to stay.



Service Base Award Ceremony, late 1940's *ed note: We've endeavored to identify as many individuals as possible. We regret any omissions.*

Front Row: (L) Esmond K. Volz, Paul F. Diss, Daniel B. Courtney, James Pedrotti, Lowell C. Oheim, Chalmer J. Crowder, Charles Canning, Gene Sewell
 Second Row: Patrick J. Hurley, Harry Trenz, Carl Rode, Paul Miller, James Murian, Ben Russell
 Third Row: Mickey ?, Harry Bussey, Robert Schultz, John Freeman, Harry Taylor, Paul Egan, Robert L. Bussey
 Back Row: Joe Butler, Orville Wellman, Clinton F. Burneson, Allen E. McFadden, Grant N. Berryman, Herman ?, Paul Baxter, Ted Graham, William Mitchell, Charles J. Stoll

The principal mission of the St. Louis District at that time was maintaining the 9-foot navigation project between St. Louis and the mouth of the Ohio River.

During the 30's and prior to and during World War II there were as many as seven dredges operating in the District, as well as a fleet of towboats, delivering materials to the construction parties building revetments and pile dikes, and delivering supplies to the dredges. There were also survey parties afloat supplying data for dredging and construction operations.

Capt. James E. Kennedy directed dredging and towboat operations from his office at the Service Base. Mr. DelCommune directed construction operations from the District office.

When I began, radio communication used International Morse Code, thus the

need for qualified operators. Early radio equipment was assembled by District radio personnel, using surplus WW I components .

During the winter, when ice prevented normal operation, I worked in the radio shop or as relief operator at the Service Base station, or at times on winter fleets at Alton slough or Cape Girardeau.

I can recall many interesting incidents while working on the river. Some were amusing, some were serious and a few were potentially dangerous. One incident I recall quite well took place while I was working aboard the Towboat Guyandot.

The cook/baker was a gentleman known as Kid Wilson, supposedly a prizefighter in his younger days. He had given me a list of groceries to be ordered, but one item was unclear. I went down to the galley to talk to the



“Kid” and find out what it was. He was kneading dough for our bread while we talked.

The Kid had a few teeth missing and he chewed tobacco. As he talked, I noticed tobacco juice running down each side of his mouth and dripping off his chin into the dough. He was a rather excitable person, so I hesitated to call his attention to the unsavory condition.

However, I made a mental note to abstain from eating bread that day. It wasn't until I was midway through chow, mopping up gravy with nice fresh bread, that I remembered the morning interlude. But by then it was too late.

Don't misunderstand me, the Kid was as excellent cook and baker - I had just picked the wrong time and place to talk to him.

In 1934 I was transferred from the Inspection Boat Penniman and assigned as Administrative Assistant to Captain Morey Brady, who headed the river Transportation Section. I also acted as relief operator at the Service Base radio station. During the years that followed I worked in a variety positions, but mainly in radio communications and related electronics. At the time of my retirement in 1966 I was Head of the Electronics Section.

We contacted Dan before publishing this item. As Dan said, he retired in 1961, and the last time he visited the Service Base was in 1988 for the 100th anniversary celebration there. He's 92 now, and reports he's housebound, but he'd be delighted to hear from anyone and to share memories of his days in the St. Louis District Corps family. He may be reached at:

Daniel H. Courtney 2210 21st St.
West Bradenton, FL 34205
(941)748-8784

Employee of the Month



Pernell Ridely, Logistics Management

Pernell Ridley has been named St. Louis District Employee of the Month for February 2003.

He joined the U.S. Army Corps of Engineers as Property Disposal Officer in November 2002. The St. Louis District had been without a permanent Property Disposal Officer from August to November 2002, and had accumulated substantial surplus equipment District wide.

Ridley eagerly took on the challenge of excessing all the District's unneeded equipment, including gathering surplus computer equipment in the District. He located schools that needed the equipment, and arranged to distribute 60 computers, 60 monitors, 7 printers, and 1 laptop, valued at \$178,722, to ten local schools.

The district has received several thank you letters praising Mr. Ridley for the professional manner in which he handled this process.

Before coming to St. Louis, Ridley completed 23 years of service in the U.S. Army, retiring as a Master Sergeant. His final tour of duty was with the U.S. Army Recruiting Battalion, St. Louis, also in the RAY Building, where he served as the organization's property book officer.



Lock 24, Clarksville, Mo.



Cindy Zimmerman, Lock 24

Meet Cindy Zimmerman. When the majority of folks call Lock 24 during normal business hours Cindy is the first voice they hear. Your chances are really enhanced because we don't have voice mail! That's strange, but true. A real person will answer the phone, every time!

Cindy has the most longevity of anyone at Lock 24. She started working part time at the Lock when she was in high school. Next month Cindy will have 26 years with the Corps. She knows all the procedures that involve this critical stair step of water facility.

Cindy provides information for the District, the general public and the barge industry. Cindy handles email, the Corps of Engineers Financial Management System (CEFMS), orders supplies and generally keeps the peace.

Her smiling face and willing attitude contribute significantly to day-to-day operations. With all the renovations taking place, that's a welcome gift.



The Way I Remember It



Over the years the office of the St. Louis Engineer District has been in several different locations – at least nine, the way I count. I have been looking in old books, records and notes for information about the various district office locations.

Only last month our current location at 1222 Spruce Street was featured on the front page of *Esprit*. So I thought a few people might be interested in where the headquarters has been located in St. Louis during its 131 years.

Since I wasn't here for most of these moves, I asked public affairs if I could look in their historical files. After much consternation and frustration, I found a type-written set of papers, stapled together and entitled, "History of St. Louis, Missouri Engineer District, January 1944". Let me share what I learned – with a few edits, of course.

The St. Louis Engineer District was formally established in 1872. So sadly, Robert E. Lee was not really the first District Engineer – there was simply no District at the time he served here.

The first U. S. Engineer office was located at 404 Market Street. In the next twelve years the District occupied three different locations. It may have seemed unwise to early District employees ever to unpack completely.

Finally, when the District moved in 1884, it settled down for the next 50-plus years in the old Post Office Building at 8th and Olive, where it was



Old Post Office Building, at 8th and Olive Street was home to the St. Louis District from 1884 to 1935. It has a rich history and unique architecture.

located from 1884 to 1935.

I remember Lester Arms, Head of the Mapping Section of the Survey Branch, telling me he had been in the U. S. Customs and Court House Building while working for the Corps of Engineers (Les worked for the Corps from October 1948 to February 1978). This building is located on the corner of Tucker Boulevard and Market Street.

While researching this article, I wrote an email to James T. Lovelace, former Chief of the Hydrologic and Hydraulics Branch and asked him for his memories of office locations.



12th (now Tucker) and Market Street (U.S. Customs and Court House)

The first building Mr. Lovelace worked in was the Boatmen's Bank building, located on Broadway. He doesn't remember the exact time span; however, he does remember an interesting event, which took place while he was in that building. Here is Mr. Lovelace's email message.

"When I first went to work (August 1960) the Corps office was in the Boatman's Bank Building. We were there for 4 or 5 years before moving to the Frisco Building. I know we were in the Boatman's building when President Kennedy was assassinated. I remember looking out of the window onto Broadway and seeing groups of people on the street listening to the news updates on transistor radios. I can also remember looking across the street into the Mercantile Bank Building and seeing hundreds of office workers gathered in groups around several desks listening for more information". (Note – President Kennedy was shot on 22 November 1963.)

When I came to work for the Corps of Engineers (January 1969), the district office was located in the Frisco Building



210 North Tucker, home to the St. Louis District for twenty years.

on the corner of 9th and Olive St. We occupied almost all of the floors from the 2nd floor to the top of the building.



906 Olive Street, (Frisco Building)

The first floor was reserved for various business offices. Erker's Eye Glasses occupied one space. Another space served as an office supply store while another was a jewelry store. Finally, there was the Chalet Lounge and a savings and loan business on the premises. We moved out of this building in the fall of 1970.

The next building was known simply as 210 North Tucker. It is located between Olive and Pine Streets facing 12th Street (now known as Tucker Boulevard). The Corps stayed in this building for twenty years. We moved

out of that building over Labor Day in 1990.

And now we are located in the Robert A. Young Federal Building located on the corner of Tucker Boulevard and Spruce Street .

Claude

Editor's Note:

We'd love to hear from any Esprit reader who can provide additional details about former District headquarters locations.



US Army Corps of Engineers

St. Louis District®

← **Executive Office**

Today, our District Headquarters is located at 1222 Spruce Street as featured in the January 2003 issue of *Esprit*.

**District Headquarters
1872 to Present:**

1872 to 1884:

- 404 Market Street
- 1122 Pine Street
- 417 Pine Street

1884 to 1935:

- 8th & Olive (Old Post Office Building)

1935 to circa 1960

- 12th & Market, (U.S. Customs and Court House)

Circa 1960 to 1965

- Boatman's Bank Building

Circa 1965 to 1970

- 9th & Olive St. (Frisco Building)

1970 to 1990

- 210 North Tucker

1990 to Present

- 1222 Spruce St. (RAY Building)



Snow Rollers Come to Lake Shelbyville

Question: Which of the following actually exist: Santa Claus, snow rollers, or the Easter Bunny?

Answer: All three. But you've got to take Santa and the Bunny on faith.

Snow rollers are a rare weather phenomena that appeared February 12, at Lake Shelbyville following a blustery winter storm that blanketed the area with snow.

The snow rollers, wheel-shaped rolls of snow can be as large as 30-gallon drums under ideal conditions. But these were the more typical 10 to 12-inch diameters, many with the also typical holes in their centers.



Snow rollers often feature central holes.



Snow rollers can be as large as 30 gallon drums. These which formed at Lake Shelbyville in February were about 12 inches in diameter.

According to the National Weather Service, forming snow rollers requires the following:

- An icy, crusty snow surface upon which a new snow cannot stick as it falls
- An inch or so of new loose, wet snow
- Gusty winds to scoop out chunks of snow and cause them to roll across the

snow, accumulating a layer much as a snowball can be rolled into a larger ball. Shelbyville had all of the ingredient conditions, so when employees arrived the morning after the storm, they were greeted with the rare sight of snow rollers.

They are still waiting to see Santa and the Bunny.

Possible Grave Discovered at Lake Shelbyville

It's not everyday that you stumble on what appears to be a gravesite, but that's what a man walking his dog near the Coon Creek campground at Lake Shelbyville recently found.

The site included an eight by five feet rock-covered mound with an elaborate cross upon it. It was an image familiar to everyone who has ever watched a western movie.

The individual quickly informed Corps rangers, who after visiting the site to confirm its existence, called local law enforcement authorities.

Shelby County Sheriff's investigators and Illinois State Police Crime Scene

Technicians, escorted by Operations Manager Andrea Lewis and Natural Resources Specialist Mike Skinner quickly assembled at the site.

Investigators removed the rocks and dirt and uncovered a large, cloth-covered wood box. On opening the box they discovered the body of a Labrador Retriever. The dog still wore its collar with a tag that led authorities to the owner.

Apparently the dog had accompanied his master on numerous fishing visits to the area over its life. When it died, the owner decided to bury him where he had enjoyed so many happy times. It never occurred to the owner that the grave would be considered suspicious and lead to an investigation.

While it is illegal to disturb federal lands by excavating, it was determined that there was no criminal intent and the dog's remains were turned over to the owner for proper burial elsewhere.



Natural Resources Specialist Mike Skinner inspects the "grave" at Lake Shelbyville



Alban (Al) LeGrand,
Carlyle Lake Manager 1967 — 1993

Former Carlyle Lake Manager Passes

Alban (Al) LeGrand, a 37-year St. Louis District employee passed away after a long illness, Wednesday, March 12, 2003.

LeGrand, became Carlyle Lake Manager in 1967, and very soon the lake became Al's life. He contributed countless sunrise-to-sunset days during the next two-plus decades. During his years of dedicated stewardship more than 80 million people visited Carlyle Lake.

At a ceremony in 2002, during which the new Carlyle Project Office was dedicated in his name, Al was lauded as a man who didn't go by the book. Rather, he fereted out the questions, developed the answers and wrote most of the policies and processes at Carlyle Lake -- many of which still underpin activities there today and at all District Lakes.

LeGrand was renowned for building consensus, as he balanced agricultural issues with conservation practices.

Al LeGrand will be sorely missed by friends and colleagues -- but his contributions to the District live on.

Retiree's Corner



The retirees had their monthly luncheon on February 20, at the Salad Bowl.

Joe Bisher said that he contacted John Jansen and Ruddle Spring and offered to give them a ride to the luncheon. John said that he was going to pass, because it was too far and he had "things" to do.

Ruddle was not available. He is in Florida enjoying what ever an old river captain wants to do. He did leave Joe with the idea that when he returns from Florida, he would make the luncheon. Joe also said that he and his wife have finally retired. He feels that they have provided enough guidance to the staff at the ARCH that they should be able to operate without the Bishers. They thoroughly enjoyed their work there, but there is a time when you have to say enough.

Congratulations to the Bishers. We hope that Joe has enough sense to stay out of his wife's way at home.

Charlie Denzel said that he was a temporary bachelor. His wife was in Florida visiting their grandchildren. Charlie said that he was in the process of cleaning the house to make sure it was respectable for the return of his wife. (Good move, Charlie.)

He also had a number of old photographs of fellow workers and was Quick to point out that every one had aged to some extent, except for him. It was interesting to see how many of the retirees could identify the individuals in the photos. Charlie informed the group of the untimely passing of Carol Lindsay. Ron Lindsay is a retiree from the Planning Division. Our condolences to Ron and his family.

Dennis Gould said that he was about to be a grandfather again. His youngest son, Joe, and his wife were expecting in the next several weeks. Dennis said that it will be his fourth grandchild. Congratulations to Dennis.

Lew Scheuermann mentioned that he was going to Springfield Missouri, for a bowling tournament. He and his wife were going to visit Bob Lutz while they are down there. Lew hopes that he has the correct directions to the Lutz's estate. He said that he would give the retirees a "report" of their visit.

Larry McCarthy said that the Holiday Season is officially over. He is in the process of dismantling the Christmas trees in his home. When he was asked how many trees were involved, he said, "just thirteen."

One in every room and then there are some in the various halls. (Now that is getting in the season's spirit.) Sandor Dombi and his family are planning a trip back to Europe in the July-August time frame. They want to visit places where they were born and grew up. He said that they have some concern about the world situation, however, they are going with a very positive attitude.

Mention was made that Wally Feld had announced his retirement for about April 1st. The District will be losing its tallest employee. Congratulations to Wally. Hope his wife, Kathy, is ready for his retirement.

The next luncheon will be on March 20th at the Salad Bowl, at about 11:00am. Hope to see some of you

Elizabeth (Betsy) Christofferson, the wife of Loren Christofferson, passed away on February 19, 2003. Loren was an engineering technician in what was the Specifications Section of the Design Branch until his retirement in 1983. His wife Betsy worked for the IRS just down the street (Tucker Blvd.) from the Corps' office at 210 North Tucker. Both Loren and Betsy retired from federal service in 1983.

February is Black History Month!

Civil rights leader and hero: Rosa Parks fought for justice

Many of us have become confused about what a hero really is.

Our true heroes are not athletes or actors, not models or music stars. They are people who do something that really matters in the world.

Last year a real hero received a long overdue medal. Rosa Parks was awarded the Congressional Gold Medal for her leadership in the American civil rights movement.

We know her best as the seamstress who refused to give up her seat to a white man on a Montgomery, Alabama, bus. That act on Dec. 1, 1955 was not her first in the fight against injustice. Parks was a veteran civil-rights activist.

In 1943, she was the secretary of the Alabama chapter of the National Association for the Advancement of Colored People (NAACP).



Douglas Brinkly of the University of New Orleans, a Parks biographer, says it was in 1943 that she was first put off a Montgomery bus. She was denied a ride because she entered the bus through the front door vice the back door. Ironically, the bus driver who hassled her in 1943 was the same driver who hassled her in 1955.

She tried to register to vote three times and was turned down each time.

She monitored the treatment of black World War II veterans in Montgomery.

In 1949, she was an advisor to the NAACP Youth Council, teaching young people how to maintain their dignity in spite of injustice.

Rosa Park's defiance of the Montgomery bus law was a beginning. It sparked the 381-day bus boycott which was led by a young local minister: Dr. Martin Luther King, Jr.

African-American heroes helped shape the U.S. after the Civil War

Stories of heroic African-American soldiers who fought in the Civil War are well remembered. Some fought for the South, and some for the North. But little is known about their progress after the Civil War. Here are some personal histories to fill that gap of knowledge:

Robert Smalls, Naval hero and U.S Congressman (1829-1915):

Smalls was born a slave in Beaufort, S.C. He taught himself to read and write. In 1851, to learn the skills of a seaman, he signed on as a rigger in Charleston, S.C. During the Civil War, he smuggled his family onto a ship while the crew was on shore and sailed out to the Union Navy.

His daring escape brought Smalls into national prominence. He was granted a sum of money for the surrendered ship and was appointed a pilot in the U.S. Navy. Later, he was promoted to captain for heroism in battle.

During Reconstruction, Smalls returned to South Carolina and was elected to several terms in state government offices, then to the U.S. House of Representatives where he served five terms.

Mifflin Wister Gibbs, Judge and United States Consul (1823-1918):

Gibbs was born in Philadelphia, but migrated to San Francisco in 1849. There he operated a bootblack stand before forming a partnership with Peter Lister in a shoe firm on Clay Street.

A restless man, Gibbs migrated to Victoria, British Columbia, in 1858. There he established the first general store that was not connected with the Hudson Bay Company. He became an influential person and a councilman from the James Bay District. At the same time, he studied law with an English barrister, became a contractor, and built a railroad from the coal mines of Queen Charlotte to Skidgate Harbor.

By 1869, Gibbs had moved to Little Rock, Ark., where he studied at Oberlin College. He was admitted to the bar in 1870 and elected city judge in 1873. He held several positions for President Hayes and President Harrison before being named U.S. Consul to Madagascar in 1897.

The names of heroic and influential African Americans in history go on seemingly without end. These are just two who can make us proud to be Americans, one and all.