



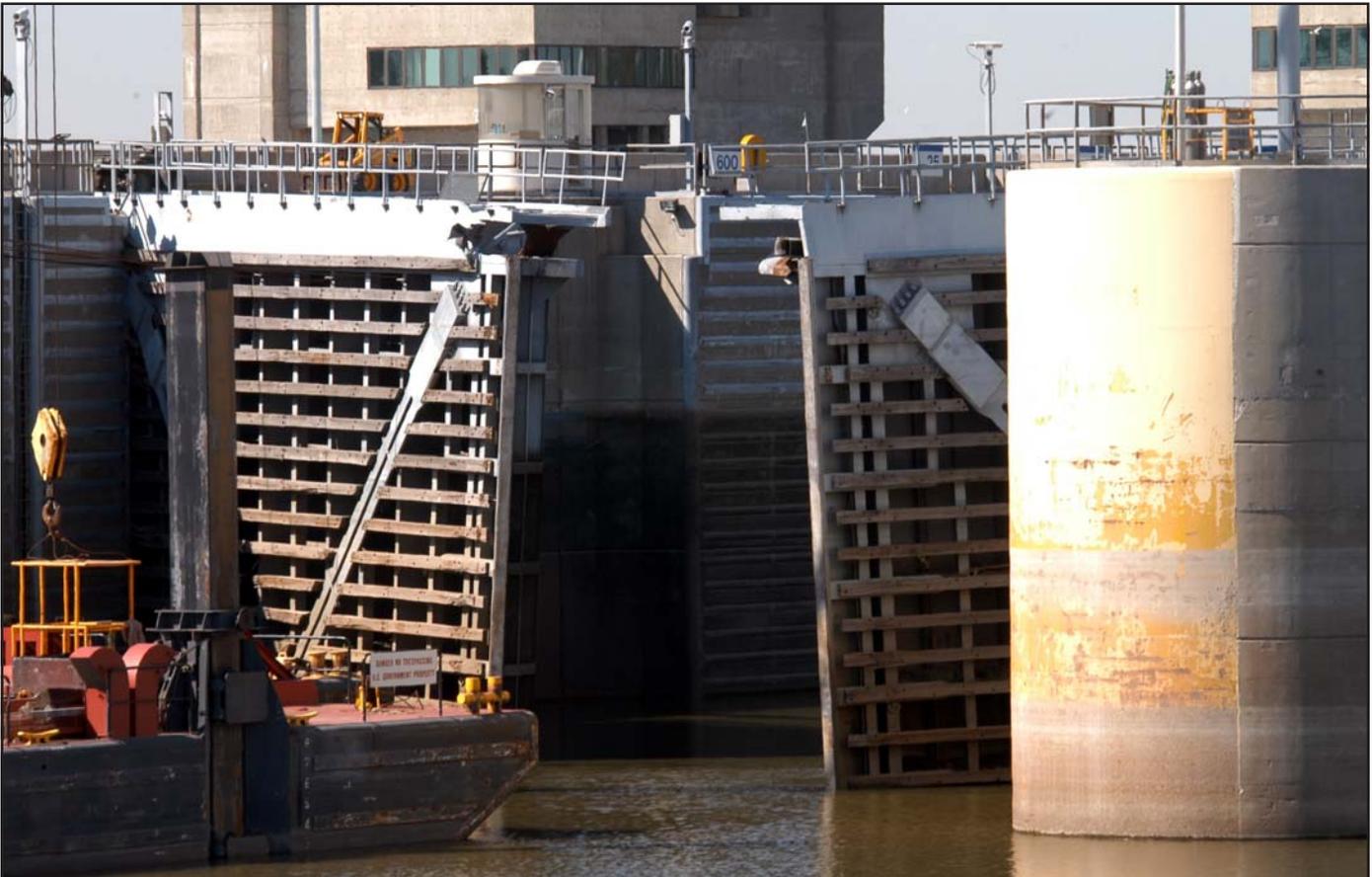
ST. LOUIS ARMY ENGINEER DISTRICT

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The downstream miter gates of the Melvin Price Auxiliary Lock Chamber are shown here after the October 4 incident in which they were badly damaged when they traveled past miter – or properly closed position. This photo, shot the next day, shows them twisted and pointing incongruously out of the chamber. St. Louis District maintenance personnel first secured them with heavy cables to prevent further damage.

Mel Price Auxiliary Chamber is Badly Damaged

The miter gates at the downstream or south end of the auxiliary lock chamber at the Mel Price Locks and Dam were badly damaged Monday, October 4.

This occurred when for reasons still unknown the miter gate leafs (proper engineering terminology for what most people call gates. In this usage, the plural of “leaf” is indeed “leafs.”) traveled past the miter position. As they did so they clashed with what an on-scene witness

described as a sound like a train wreck, as metal was torn and machinery was broken and dislodged from the lock’s concrete structure.

The two leafs, torn and twisted, have now been removed from the water and are sitting high and dry on a gate barge adjacent to the giant concrete lock structure south of East Alton, Ill. Engineers have initially reported that they are repairable. They are currently secured

standing up on edges, towering 57.5 feet above supporting timbers and the barge’s height above the water, shackled down with numerous cables. Plans call for their move to the Service Base for repair.

The mishap occurred while the 600-foot-long auxiliary chamber – closest to the Illinois bank – was being prepared to accept several pleasure craft for a south-bound transit. As the giant culvert valves at the north end of the chamber opened to



Commander's Perspective



COL Kevin Williams

During Brig. Gen. Crear's remarks at our recent town hall, he discussed at some length, the value of the civil works function of the U.S. Army Corps of Engineers to the Defense Department and to our nation.

The general described us as a force in being; with established relationships; deployable around the nation or world; willing and able to support combat forces; with great expertise; serving as a power projection platform and able to generate invaluable international goodwill.

When you come to work each day, whether you sit at a desk in the RAY building in downtown St. Louis, work on a lock wall at Clarksville or greet visitors at one of our five lake projects, you are part of a team that is serving all across our nation and around the globe. A recent review of our weekly situation report, or sitrep, discloses that more than 50 people from our St. Louis District Family have served, or are now serving

in Iraq and Afghanistan. Some have deployed more than once. Some 44 more are nearing completion of their missions in Florida, providing relief to our own citizens who have been battered repeatedly by a series of deadly and devastating hurricanes.

What all of these nearly 100 people share in common is flexibility and willingness to do whatever is necessary to get the job done and a dedication to duty and excellence that is rare in our country today. They – you all – are very special people.

It is inevitable that our country will suffer natural disasters in the future and again as before, you showed your readiness and ability to make a difference for hundreds of thousands of your fellow Americans in the southeast. I am confident you will do so again in the future.

Elsewhere, the Global War on Terrorism is going to be a lengthy one. Anybody who thought otherwise has little grasp of the magnitude and scope of this mission or the absolute criticality of our prevailing in this fight. The choice of winning or losing is ours – and so will be the impact of either result: it will change all of our lives and those of our children and their children.

BG Crear asked once again, and I will add my voice to his, that you search in your own hearts to see if you can raise your hand to take part in this vital mission. We are receiving periodic request lists for people with specific skills to go to Iraq or Afghanistan, but we have also seen how many of you have skills that go far beyond what you do daily for the District.

We – you – are truly part of a capability to extends far beyond what we

provide everyday for the region. You are all members of the world's greatest engineering organization. Engineers turn ideas and science into reality, and you can be part of that mission of bringing quality of life, freedom and stability to people, many of whom aren't even sure what that all means.

The mission is tough. I'm not going to try to fool you on that. But the rewards and satisfactions are immense. If you want to know more, talk to District people who have been there. Talk to me.

Essayons.

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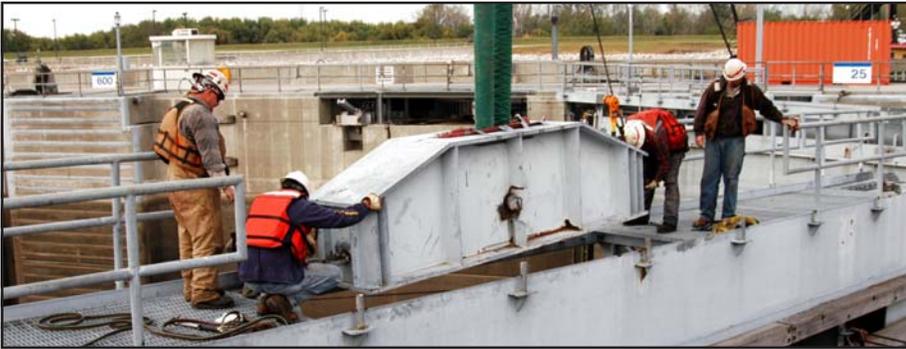
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District Commander ----- COL C. Kevin Williams

Chief, Public Affairs ----- Alan J. Dooley

Editor ----- Russell A. Elliott

Address mail to: US Army Engineer District, St. Louis, ATTN: CEMVS-PA, 1222 Spruce, St. Louis, MO 63103-2833, Phone (314) 331-8095



A Mississippi Valley team quickly assembled as heavy lifting experts from the Rock Island District arrived with Crane Hercules. Here they are inserting a strongback which enables lifting the lock gates from a single lifting point.

Mel Price Lock Damage Cont. from page 1

admit water to raise the level in the chamber to the level of the pool north of the locks, apparently one of the leafs failed to close properly and the rapidly increasing force of the rising water pushed it against, then through the other gate, sweeping both giant structures downstream.

“We know what happened, but we don’t know exactly how or why,” reported Rivers Project Operations Chief Stan Ebersohl. “We have removed both damaged leafs. Next we must dewater the lock chamber before we can hopefully see why the one leaf apparently didn’t close all the way and accurately portray what followed. We cannot speculate until we can gather the facts,” he said.

St. Louis District Chief of Construction and Operations, Peggy O’Bryan adds that it will be impossible to identify a cost for repairs until these steps are taken and engineers and maintenance experts can examine everything. They will also have to decide on measures to prevent any future recurrences as well.

Contrary to initial reports, there were no vessels in the chamber at the time of the mishap.

The only silver linings to the mishap are the facts that nobody was injured, that the damage occurred in the auxiliary chamber and the main chamber has continued to function and that the two chambers are separated by several hundred feet. This means that repairs to the auxiliary chamber will not hamper operations of the main 1200-foot chamber.

Uninterrupted operation of the main chamber is considered especially critical as we enter the harvest season and 60 percent of the nation’s grain exports head south to New Orleans. The main chamber accommodates 15- barge tows – the largest that operate on the upper Mississippi River – without cutting them into two segments for locking, as they are at all but Lock 19 to the north. “We haven’t seen any delays in locking, and since we have the 1200-foot chamber operating, we aren’t likely to either,” said Lock Master Tom Miller.

The shorter 600-foot chamber is used mostly for locking pleasure craft and smaller barge tows as the pass through the next-to-last locks southbound on the river’s water start step system.

Removing the two damaged lock leafs was beyond the lifting capacity of the St. Louis District’s floating crane, Sewell, so in a demonstration of regional cooperation, a floating crane from the Rock Island District – Hercules – with her skilled crew, was called in to remove the two leafs from the lock chamber.

Removing the two leafs was no small feat. Each gate weighs about 220 tons, and that’s without silt and mud, which was present in considerable amounts. The 220-ton figure is within 10,000 pounds of the weight of the well-known Statue of Liberty, in New York. They were both damaged to an unknown degree, further complicating the lift. Finally, to place them on the gate barge after each was lifted, the crane, the barge on which the leafs would be placed and other associated floating machinery had to be pulled away

from the end of the chamber into less restricted waters where the actual transfer took place.

The Rock Island crew was also quick to point out that the lifts could not be completed safely with winds above 10 miles per hour due to the sail-like nature of the leafs, each 62 feet wide and 57.5 feet high. Even with acceptable wind speeds, the giant leafs could be seen to sway slowly, until they were lashed down against the front of Hercules’ hull.

Experts from U.S. Army Corps of Engineers Headquarters in Washington, as well as from Division Headquarters in Vicksburg, have visited the site to view the situation and emphasized to the District that they will support a maximum effort to restore operation of the lock chamber.

The next steps in the repair process are to assess the damage to the leafs, dewater the lock chamber and assess its damage, and simultaneously to lay out a critical path to repairing the facility.

Emphasizing that she will not speculate, Peggy O’Bryan said, “We will fix this. We’ll do all that is humanly possible to understand the causes and to ensure against this happening again.”



The first gate to be removed was the Missouri – or westernmost gate. Here its entire 220-ton mass hangs from the giant floating Crane Hercules.



Miter Gates and Mitering

The severe damage to the miter gates at the Mel Price Locks and Dam auxiliary chamber occurred when they went past miter. Yup.

So what are miter gates and what is mitering?

A miter gate consists of two leaves that swing back and forth like garage doors. They are different from vertical lift gates which travel up and down from the bottom of the chamber to the surface to close a lock chamber.

When the leaves are fully opened they form a flush surface as part of the wall of the lock. They are recessed into the walls so they are entirely out of the way of passing vessels.

When they are fully closed they make contact at an angle in the middle of the lock chamber. This joint is called the miter. The miter gate leaves at Mel Price form an angle of 18.5 degrees with a straight line between the lock walls (that's rounding up, but the exact figure is germane only to an engineer.)

Though they are like doors, they do not have the support when closed that a door jam would afford. Unlike other miter gates up and down the Mississippi, there is not even a sill or jam at the bottom; just a small steel gate stop. Instead, they rely on the combination of stiffness of the gates and the ability of the arch-like structure they form when closed, to counter the river's pressure when there is a difference between water levels on the two sides of the gates.

The resulting configuration when closed is a form of an arch, which is specifically known as a three-hinged arch. This is because three angles change as the leaves close: the angle between the gates as well as their angles with the wall all change simultaneously during the operation.

The mechanical strength of an arch is based on the fact that the structure



When properly closed – or mitered – the gates form an angle pointing upstream against the force of the current flow. This gives them added mechanical strength, much like an arch laying on its side, enabling them to transmit the force into the lock walls.

transmits all of the forces – its weight and any live load acting on the arch such as traffic into the ground on the two sides. Until the arch is completed at the top, it is inherently unstable. Many readers will remember the building of the famous arch at the river front and what a monumental day it was when the top middle segment was finally inserted. This “key” to the arch was the critical element, enabling it to transmit all of the forces into the ground.

Similarly, one may envision a pair of miter gates as an arch laying on its side. When the gates are properly closed, they form an arch, always pointing upstream against the flow of the river. They in turn transfer the force of the water they hold back into the hinges – or quoins – and the concrete lock walls.

How much pressure is this? The gates are each 57.5 feet high and 62 feet wide. When the water is equal elevation on each side (such as when the gates are opening or closing), there is no force exerted. But water is very heavy – 62.4 pounds per cubic foot. If there is a difference of 20 feet between the water on one side and the other, well within the capabilities of the lock, there is about

2500 tons of force being exerted against the lock gates.

If they have come into contact as planned, then this force is amply countered and transmitted into the walls of the lock.

At Mel Price however, it appears that the gates – for reasons still to be determined – were not joined together, or properly “mitered,” when water started to flow into the lock through the two giant – 12 foot by 12 foot – culvert valves at the chamber's north end. This in turn meant that their ability to hold back the rising water was very minimal, limited only to the strength of the opening and closing machinery. With the gates not being in their mechanically strong position, rising water in the chamber caused the gates to start to move and the result was much like would be encountered by a door without a door jam to rest against. They passed through the closed position, and continued on, effectively ripping the hinges out of the lock wall.

It's more complex than that. But that is the principle.



Brig. Gen. Robert Crear spent most of Wednesday, November 10 with the employees of the St. Louis District, U.S. Army Corps of Engineers. Crear, who recently took over as Mississippi Valley Commander, held an informative town hall meeting in which he set forth his background and philosophy and then took questions from the audience.

Division Commander Conducts Town Hall in St. Louis

Mississippi Valley Division Commander Brig. Gen. Robert Crear spent most of Wednesday, November 10 with the St. Louis District. During the day he conducted his first town hall meeting with the District Personnel.

The town hall opened with what is becoming the general's trademark salute of a loud "Hooah" as our Division Commander strode to the stage in the 2nd Floor Federal Building Auditorium. The general explained the meaning of the word – anything but "no" – and led all present in a second thundering "Hooah."

Crear set the scene for his remarks by telling his audience about his origins. Growing up Black in Mississippi was a tough experience for him, he reported, but strong family influences and seeing how African Americans were being accepted in the U.S. military convinced him very early that he wanted to be a military officer. By age 8, the course was set, he told. Following college and being commissioned a second lieutenant in the Army's infantry, he has never deviated from that path.

Brig. Gen. Crear told of his special regard for the St. Louis District, where he

came when he learned he was slated to become the Vicksburg District Engineers several years ago. "I came here and learned many things, which I took to Vicksburg when I assumed command there," he said.

The general next stated that his number one objective as Division Commander was personal safety. He said that all accidents could be prevented, and that was his goal for the Division. He listed steps to achieve this, ranging from continuous hazard assessments and risk analyses to wearing PFDs while boating.

He followed by articulating his personal philosophy, ticking off Leadership, Integrity, Loyalty, Teamwork, Individual Initiative, Communications and Taking Care of People as essential elements of how he has and always will operate.

To wrap up his leadership philosophy, he showed a slide with what he termed his bottom line: TIPS. He gave more detail on the meaning of that acronym:

- T** Talk to your people
- I** Keep them informed
- P** Be predictable
- S** Be sensitive to individual circumstances

Moving on to examine the value of the Corps Civil Works capability to the Army and nation, the general described the

people of the U.S. Army Corps of Engineers: as a force in being; with established relationships; deployable around the nation or world; willing and able to support combat forces; with great expertise; serving as a power projection platform and able to generate invaluable international goodwill.

He cited examples of this value-added from the St. Louis District alone, which has sent 50 employees to Iraq and Afghanistan, 44 more to southeastern United States in the aftermath of this year's hurricanes, recovering evidence from Iraqi mass graves, acting regionally as part of the Upper Mississippi River – Illinois Waterway Study and personal contributions like taking part in the National Public Lands Day.

The general also recognized several District people for their service to the nation and district. Receiving Commanders Awards for service overseas were:

- Karen Bautsch (HR)
- Jerrald Schutte (CO-B)
- Stephen Trebs (CO-A)
- Marty Seger (CO-NP)

Being recognized for more than 10 years of outstanding service from her being hired right out of high school and working up to the deputy PAO position before departing for new responsibilities at the Veterans Administration was:

- Lattissua Tyler (PA)

Finally, Roger Hayes, recently retired from a career with the St. Louis District Con-Ops organization, received a belated Purple Heart for wounds he received more than 35 years ago as a young infantryman in Vietnam.

Brig. Gen. Crear closed his presentation by fielding questions from District personnel, including discussions of future developments, such as the new National Defense Personnel System, competitive outsourcing and other initiatives currently moving ahead in the Corps. Several employees later complemented the general's responses, saying they weren't always what they had hoped to hear about future prospects, but they were forthright and honest.



Service Base Hosts Division Commander's Visit

Many employees of the St. Louis District Service Base were surprised when Division Commander Brig. Gen. Robert Crear and District Commander Col. Kevin Williams arrived there, Wednesday, November 10, for a short-notice visit. Several times as the general departed an office, people were heard to say, "I'm thrilled he thought enough of us to come down here."

During his visit, the general received a tour of several facilities at the service base including the Applied River Engineering Center (AREC), the Historical Collections Rehabilitation Center and the metal shop. He finished his visit in the Service Base administration area, calling on employees working there.



(L) Dawn Lamm, Brig. Gen. Robert Crear and Rob Davinroy look over and discuss one of several micro models currently being used to develop answers to river engineering projects at the St. Louis District Applied River Engineering Center (AREC).

In the AREC, Rob Davinroy provided a briefing on the utility and methodology of micro modeling and river engineering structures. He noted the recent agreement concerning proper application of micro modeling and the larger scale investigations conducted by the Engineering Research and Development Center (ERDC) at Vicksburg.

Following the briefing, several AREC engineers demonstrated the micro models for individual projects for which they are responsible.

Moving across the parking lot to the Archiving and Curation Center, Brig. Gen. Crear received several briefings on work

being done there to restore and properly preserve and archive documents and artifacts, along with a discussion of curating methods and why it is so important to properly preserve historical documents and objects for future generations' use and investigation. The discussions also included an explanation of the range of cultural resource work that is carried out for the Corps of Engineers and other government agencies, inside and outside of the Defense Department.

At the end of his visit with the curators, the general received a briefing on the work a team led by Dr. Sonny Trimble recently accomplished in Iraq. There, a group of multi-disciplinary experts have been carefully excavating mass graves containing alleged victims of large-scale executions of ethnic groups and political prisoners by the former regime of Saddam Hussein. Dr. Trimble explained numerous heart-rending images on a computer monitor and described the difficult working conditions, sensitive relationships and the very real possible danger from groups who don't want evidence accumulated that may be used in future trials of former senior Baath Party officials. Trimble was extremely complimentary of the around-the-clock security provided to his group and their work place by U.S. Army personnel.

The tour next went into the dark cavernous building housing a collection of aging but irreplaceable heavy machine tools and equipment. There, Foreman Pete Coleman explained how he accomplishes numerous heavy work with a small crew of 11 people, all of whom were working forward at the Mel Price Locks and Dam repairing the auxiliary chamber miter gates when the general visited.

Coleman and Service Base superintendent Steve Dierker described how the larger workforce of the past has been reorganized to enable work to continue with smaller numbers. They also discussed efforts to introduce younger trainees into the work force before its aging members retire and take their collective institutional memory with them. "We are working with local training education institutions to identify the best



(L) Pete Coleman, Brig. Gen. Robert Crear and Steve Dierker on the trestle overlooking the District floating plant at the Service Base in St. Louis. Dierker is answering questions about dredging and other operations employing District vessels.

individuals and then bringing them aboard to learn from more experienced colleagues.

Coleman and Dierker both noted that with little warning of the visit and the absence of the entire work force which had been sent to the Mel Price Locks and Dam, they had been unable to clean the shop. General Crear commented that the general cleanliness and good order in the shop spoke volumes about their obvious professionalism and good work habits.

After visiting the trestle overlooking the river front where the District's floating equipment resides when it is not underway on the river, the general and colonel went into the administration area, escorted by Steve Dierker.

There, Brig. Gen. Crear stopped in several offices, introducing himself and thanking the workers there for what they do for the U.S. Army Corps of Engineers.

For many people this visit was their first contact with a general officer and all were impressed by the warmth and personal interest Brig. Gen. Crear showed them as he listened carefully to their explanations of their work and then thanked each for their roles.

A day that started out as a routine work day at the St. Louis Service Base proved to be anything but that. Numerous District employees who otherwise would not have had an opportunity to meet and visit with their Division Commander were able to mark the day as a highlight of the waning year. It was obvious that both the visitors and the people visited were both very impressed with each other.



Army Helping With Recovery After 4th Hurricane

By Lt. Col. Stan Heath
September 28, 2004

More than 1,300 Army Corps of Engineers employees are supporting hurricane recovery efforts in Florida, Alabama and surrounding states affected by Hurricanes Charley, Francis, Ivan, and Jeanne.

The recovery operation is the largest of its type ever undertaken by the Corps of Engineers, officials said, and it extends to areas flooded by the storms' aftermath.

For many residents living along the eastern Florida coast, Hurricane Jeanne Sept. 26 was another punch that they could not afford to take.

The Corps' emergency response to the destruction has provided ice, water, power, temporary roof covering, and technical oversight of debris removal at various locations hit hard by hurricanes. All of the Corps' effort is carried out in support of the Federal Emergency Management Agency, or FEMA, officials said. They said the mission is a complex and tiring logistical operation shared by FEMA, Corps personnel and numerous other organizations such as the Red Cross and state and local emergency responders.

Chief of Engineers Lt. Gen. Carl Strock visited the Corps' Emergency Response and Recovery Organizations in Mobile, Ala., and in Pensacola, Fla. His staff is planning a subsequent visit for him to see Corps operations in eastern Florida.

One of the most widely known efforts assigned to the Corps by FEMA is the temporary covering of roofs damaged by the storms. Corps contractors are placing plastic sheeting over the roofs. The project was coined "Operation Blue Roof," for the color of the sheeting.

More than 25,000 roof covers have been installed so far throughout Florida. The day after Hurricane Jeanne roared through Florida, Corps and contractor



John Daves of St. Louis District's Lake Wappapello project contacts the operations center during recovery efforts from hurricane Charley.

teams installed 54 "blue roofs" in St. Lucie county. Many more are being installed now, officials said.

Corps teams have delivered more than 150,000 self-help tarps to counties in Florida, and 30,000 in Alabama for residents to install themselves.

In Alabama, three counties have asked for Corps assistance with debris removal. Working through the Advance Contracting Initiative, the Corps activated its contract with Phillips and Jordan to remove close to 1 million cubic yards of debris, an amount of material equivalent to about 33,000 large truckloads.

For some 200 east-coast Florida residents affected by Frances and Jeanne, FEMA is providing temporary housing at Saufley Field, adjacent to the Pensacola Naval Air Station. The Corps of Engineers provided logistical support for the housing by setting up and connecting temporary utilities.

The units each have a small bedroom, a bunk-bed area, a kitchen/living room area, a bathroom with a shower, air conditioning, a refrigerator and a stove.

This is the first time the Corps of Engineers has used the Expedient Housing plan which allows the Corps to

provide logistical support for the housing very quickly. The Corps and its contractors agree to provide full logistical support within 72 hours after the needed materials arrive on site.

This type of temporary housing is unique because utilities are placed on top of the ground instead of buried under ground. This allows the setup to occur much faster than was previously possible.

U.S. Army Corps of Engineers teams have been working in Florida and Alabama for six weeks for Charley, Francis and Ivan and are now responding to their fourth hurricane. The organization's effort, as are the hurricanes themselves, unprecedented, officials said.

"The Corps is very adaptable," said Col. Ray Alexander, leading the response and recovery effort in Alabama. "I know our folks are tired, but they keep on demonstrating their flexibility."

(Editor's note: Lt. Col. Stan Heath serves with the Public Affairs Office for the Corps of Engineers headquarters.)



Nobody's Handed it to John Foppe

Posters, flyers and emails announced the presentation by John Foppe. But none quite prepared an audience of more than 200 who sat silently and awkwardly as the Breeze, Ill., native strode across the stage, doffed his suit coat and the stood before them - armless.

Colonel Roger Donlan - the first Medal of Honor recipient in Vietnam; then the Reverend Billy Kyles - one of the last people to be with the Reverend Dr. Martin Luther Kings before he was murdered; and now John Foppe - a man for whom being born without arms has been a springboard instead of a burden: the St. Louis District has brought an incredible series of speakers to inform and inspire us.

John Foppe came during the recent Disability Awareness Month. He told how he was born the fourth of a family of eight boys. "I was supposed to be a girl, they thought, but instead I came into the world a sickly, disabled boy," he told.

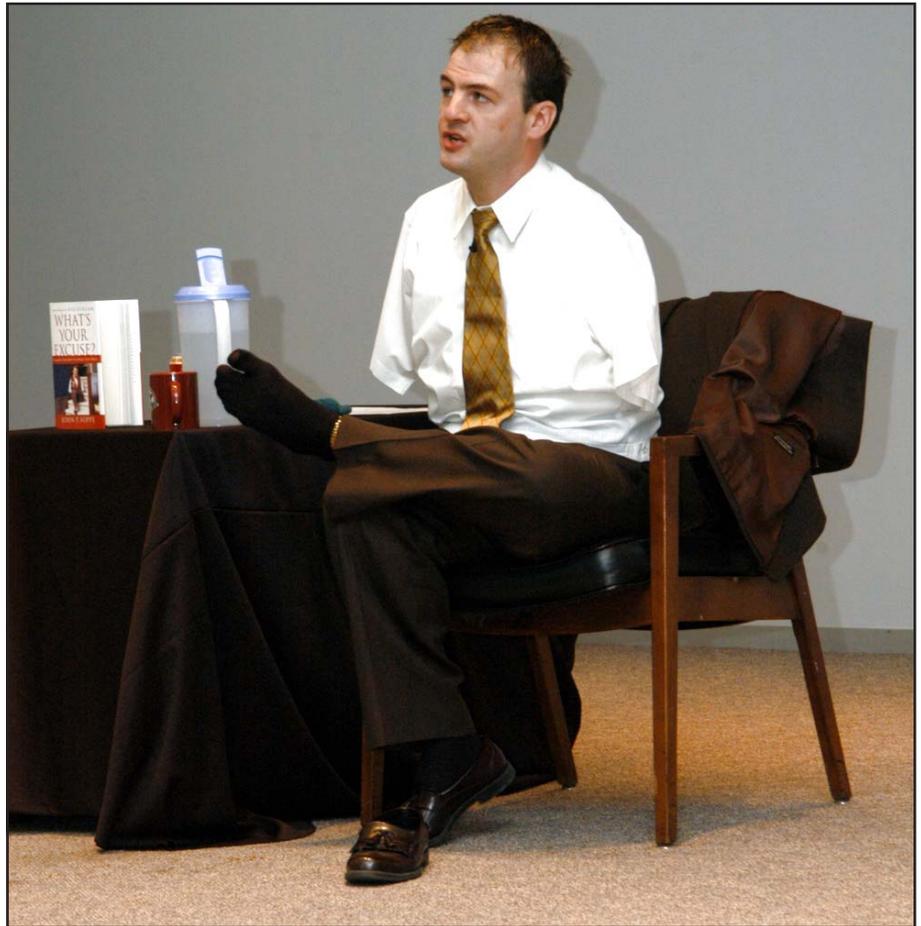
Foppe, who opens soda cans, cracks eggs, pours drinks and drinks from a cup, removes his socks and then puts them back on - all with his feet - told how he has a "condition." "It's not a handicap," he said. "Handicaps are emotional and mental problems that keep us from participating in life."

He told how his early life had been a period of ungrateful self-pity ("Why me?"). He told how he had self-isolated himself to a life on the sidelines, fearful of failure, embarrassment and rejection. He told how he had doubted he would ever lead a normal life with relationships with girls. "How would I hold their hand. How could I marry without a finger upon which to put a ring?"

"I could do some things for myself, but I often didn't," he said. "People would jump in and help me. I discovered I could connive and manipulate them."

But at age 10, John Foppe's life changed forever.

"I came home and informed my Mom



John Foppe demonstrated how he's able to accomplish simple, day to day tasks. Note the unusual socks which come from Japan, with a separate big toe, that enable Foppe to grasp objects with his socks on.

that I wanted to go to camp. She realized that a turning point had come. Unbeknownst to me, she called a family meeting and laid down the law: nobody was to help me. I was going to have to learn to do things on my own.

"Always in the past my brother had helped me dress in the morning," Foppe went on. "But that next morning he didn't. He told me he couldn't and walked out of our bedroom. My Mom taught me the meaning of tough love that day," he said quietly.

Foppe told how he struggled that morning to get his trousers on. "Before I could accomplish this I was sweating, I was so tired I was in pain, I was angry, I cried. I realized I was defeated.

"It was then that I heard God," Foppe went on. He said, 'If you shut up a minute I think I can help you.' I learned the difference between being stubborn

and being strong that morning."

Pausing several times to wipe perspiration from his brow, he went on to tell how he had had to learn to think creatively. "I had to tell my parents what needed to be done so I could do things for myself. I needed shirts to be tailored so I could wear them neatly on the outside. I sure couldn't tuck them in without hands," he joked to an increasingly comfortable audience. Citing similar examples of adapting, he showed how he wears his watch on his ankle, how he wears socks from Japan, with a big toe in them so he can grip things with his socks on.

In high school some years later, Foppe related, the first time he was stopped by a policeman while driving. "Yes, I drive," he said. "I have to adapt to my condition. I need an automatic transmission and power steering."



I was worried, he told. "My Dad was an insurance agent and he had told me I was driving a 'magic car.' If I had an accident or got a ticket, it would disappear," Foppe said.

He told how as the officer had peered into his window he nervously slid off his shoe and removed his thin wallet from it. "I took my license out with my toes. I'm sure he could have done so, but I did it for him. When he noted that all was in order, he stared at me and unable to find anything wrong, advised me, 'Why don't you just go on ahead?' And I've done just that ever since," he concluded.

Foppe told how living in the past can keep us from progressing. The past is filled with preconceived notions and behavior patterns that have held us back, he reported. But decisions must be coupled with commitments, he added. Without them we just have words.

As Foppe wove his message of hope, determination and getting rid of negative thoughts, he told his audience of his future goals. He wants to

continue to motivate people, taking his message worldwide where there has been considerably less accommodation for "conditions." "I want to speak out in foreign lands where the disabled are still marginalized."

How would John Foppe change his life if he could? The young man who has trained with the famous Zig Ziegler for his life's calling of motivating others, and who has visited with two Popes, says he wouldn't change a thing. "I have a condition, it doesn't have me. It has no control over me," he said.

As he neared the end of his remarks, Foppe pulled a sock off and held up his foot. On the toe next to his big toes there was a gold band, and he introduced his beautiful wife, Christine.

John and Christine moved through the applauding crowd, no longer embarrassed to talk to him or ask questions. They took seats at the back of the auditorium where Foppe's book, a video showing many capabilities he possesses and a CD of his presentation were for sale. Foppe smiled, accepted compliments and offered advice. "I can't shake

your hand. Just pat me on the back."

And oh yes, John Foppe signed copies of his book - with his left foot.



John Foppe was happy to autograph each and every copy of his inspirational book, *What's Your Excuse?*

A New Deployment Opportunity Knocks

Emergency responses are old hat to many members of the St. Louis District. But for some, the experience is a first, and is both eye-opening and immensely satisfying. One such individual is Clarice Trig, shown here receiving a South Atlantic Division coin from Division Commander COL Mike Walsh.

Clarice reported on return that she has long wanted to take part in disaster recovery operations but has been held back from doing so by family illnesses and responsibilities. But this time she was able to raise her hand and head south to be part of the USACE response to a series of five devastating hurricanes that hammered the nation's southeast.

She called the deployment one of the greatest learning and most rewarding experiences in her life



St. Louis District's Clarice Trig reports she first deployment away from the District, in support of hurricane recovery operations in Florida, was both satisfying and exciting. Here she receives a South Atlantic Division Coin from Division Commander Col. Mike Walsh.



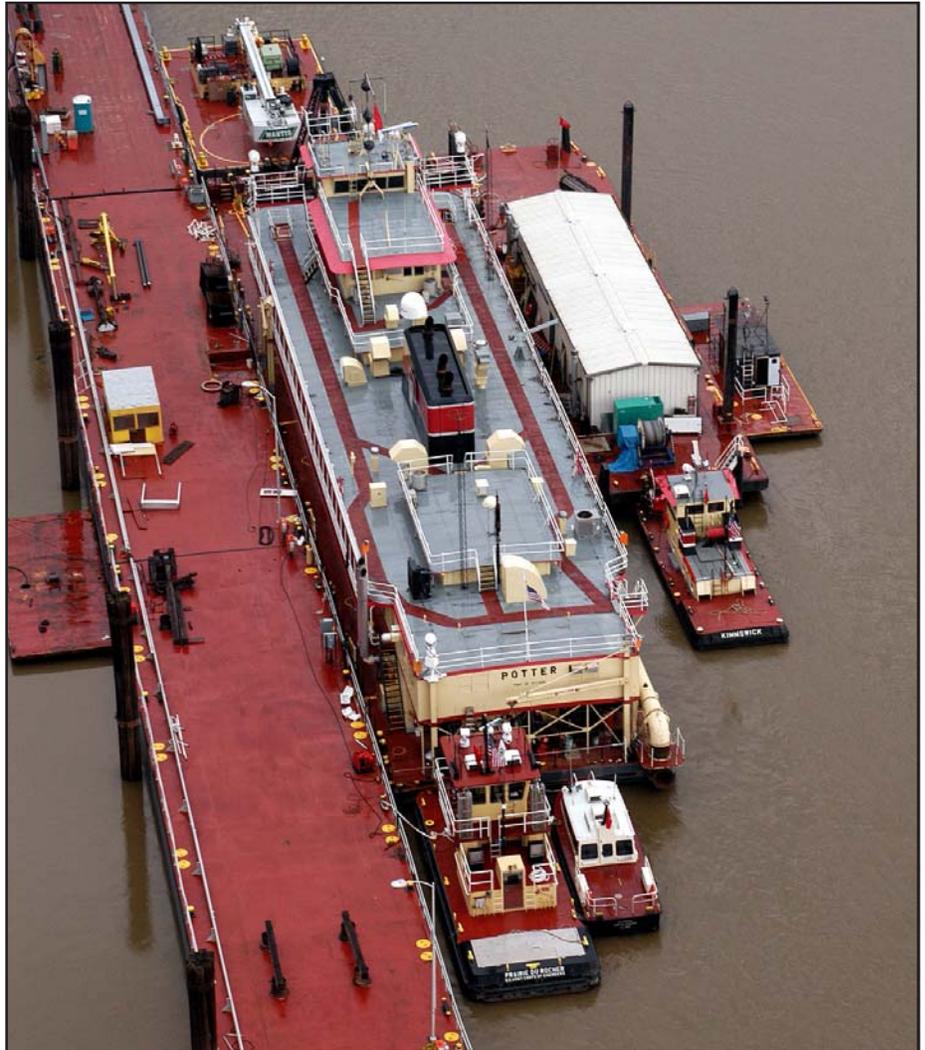
The Way I Remember It!

There is always a great excitement in the District when the dredge is scheduled to begin its annual mobilization. Each year is a little different, and yet, is all too familiar. In order to provide a safe and dependable navigation channel on the Mighty Mississippi, it is necessary to assist the river with a few helpful efforts.

The annual hydrograph of the river dictates when we must begin helping the river with its work. Usually we have higher water in the spring and lower water in the fall (This isn't a universal truth – but, in the long run, is generally true). When the river is 1/3 to 2/3 bankfull, it has enough energy to do its own work (with the help of our channel improvement structures). But when the river drops below 1/3 bankfull, it becomes lazy and refuses to do anymore work by itself. This is when we must assist with the amazing floating platform called a dredge.

A dredge is an ingenious idea! It is a very specialized piece of equipment that is designed to “reshape” the bottom of an alluvial river. There are several versions of this concept and they each have their uses, advantages and disadvantages.

Very soon after a dredge is constructed, it acquires an almost unique personality and identity. First of all, it is named. Usually its name honors an engineer who has dedicated his life to the river or maybe it honors the name of a town situated on the river's banks. Secondly, it becomes a “presence” on the river. When you pass a dredge working on the river, it is generally



A dredge doesn't work alone. It must have a fleet of supporting equipment to provide the numerous support functions that guarantee success.

spoken of with a female gender. “Thar she is!”, “she's a beauty”, “look at her cut through that sandbar”, “that ole gal has been on the river for over a half century and she still looks good”.

Over the last several decades, I must admit, I have always been captivated by the sight of a dredge working on the river. As you travel down a river and a dredge's outlines emerge from a haze or around a bend, as you get closer, it acquires more details. Then, when you are aside the vessel, you are amazed by its size and its majesty. It is a floating community, a working machine, and a remarkable, grand idea.

An alluvial river generally meanders gently through a valley. Within this river

is a rather small, but important thread of river called the navigation channel. The navigation channel has certain dimensions (width and depth). It also has to be a safe and dependable channel. The goal of river engineering and the goal of the dredge is to provide these conditions.

As the river levels fall and the low water season dominates, the sediment that has been in the water begins to “settle out” of suspension and becomes deposited in the bed of the river. The faster the water falls, the more quickly the sediment drops to the bottom. The bendways – or curves – are normally deep and narrow. The crossings are generally wide and shallow. How do we know where the problems that require



the dredge's attention are?

First of all, we have history. Sediments settle into certain locations for good reasons. If we have encountered them previously in a specific location, under similar circumstances we can expect them again.

To locate and define them precisely, we have a vessel appropriately named "Pathfinder." One of its major duties is to find the often elusive navigation channel in the river. When the "want of water is felt", Pathfinder begins its channel patrols. Pathfinder's master communicates with other vessels on the river – sharing information and concerns about river conditions.

Today river depths are determined by modern sensing equipment – sonar, which bounces sounds off the river's bottom and then analyzes their echoes to build an accurate map of the river bottom. In the past this task was accomplished by a leadsman who stood at the bow of the vessel and cast a lead line (with markings) into the river. He felt for the bottom of the river and then looked for a mark which determined a reading for the depth of the river.

Mark Twain describes this process in his book entitled, "Life on the Mississippi".

Then came the leadsman's sepulchral cry:

D-e-e-p four!

Deep four in a bottomless crossing! The terror of it took my breath away.

M-a-r-k three! . . . M-a-r-k three . . .

Quarter less three! . . . Half twain!

This is frightful! I seized the bell ropes and stopped the engines.

Quarter twain! Quarter twain! Mark Twain!

I was helpless. I did not know what in the world to do.

Quarter less twain! Nine and a half!

We were drawing nine! My hands were in a nerveless flutter.

Piloting a steamboat was very demanding. The lives of all on board, the valuable vessel, the cargo worth many thousands of dollars – all were entrusted to your piloting skills.

And so it remains today.



The dredge's pilot keeps a watchful eye as a down-bound tow passes. Potter continues its work maintaining a safe and dependable navigation channel.

How do we keep the navigation safe for today's vessels?

When "suspect" problems are reported, a survey of the area is requested. This hydrographic or bathymetric survey reveals the condition of the navigation channel. If improvements are necessary, the dredge is summoned forth.

There are several types of mechanical dredges: bucket, hopper, dustpan and cutterhead dredges to name a few. We rely primarily on the dustpan dredge and the cutterhead dredge to accomplish our work in the St. Louis District. The latter – Dredge America – is contracted for.

If you ever visit a cutterhead dredge, be sure to use plenty of adhesive on your false teeth. A cutterhead dredge will vibrate every part of your body, especially if the dredge is digging a hard layer at the bottom of the river. A cutterhead dredge works facing down river.

A dustpan dredge is more accommodating to the human condition. It seems to operate in greater harmony with the forces of the river. A dustpan dredge works facing up river into the current.

Both dredges remove material from the bottom of the river and deposit it along side the navigation channel. When the dredge finishes its work, it moves to another location and repeats its task.

The work of the channel improvement

structures has reduced the amount of dredging we need to do in the Middle Mississippi River. Since 1964, the average annual amount has been reduced from 10 million cubic yards to an average of 4 million cubic yards. Of course, this varies from year to year. In low water years we dredge more than in high water years. The long term trend is for a continuing decrease.

Will there ever be a time when we don't need dredges on the Mississippi River? I doubt it. Rivers are ever-changing and dynamic. Our goal is to reduce the total amount of dredging.

It will be a sad day if the huge, magnificent dredging vessels are eliminated. They are truly the rulers of the rushing waters.

One final thought from "Life on the Mississippi". Uncle Mumford said, "Four years of West Point, and plenty of books and schooling, will learn a man a good deal, I reckon, but it won't learn him the river."

I agree. River engineering is a specialized field that takes all the "learnin" and experience you can get. Working with one of the great forces of nature is truly a labor of monumental proportions. That's the mission of the dredge and all who work on board her.

Claude Strauser



Happy Birthday Mark Twain Lake.

The old commercial-“you’ve come a long way baby” describes Mark Twain Lake in its 20th year. The “Other” Missouri Lake has matured from the struggling teens into a mature tourist destination and on the way brought change to the small Northeast Missouri community.

Change has been good. In the beginning the proposed dam and lake, caused feelings of foreboding and fear of “the end of a way life”. Instead, new people, cultures and business came to the area embracing small town ethics, seeking a place where neighbors actually know one another and where kids can be kids.

The neighborhood now offers an abundance of recreational opportunities, including camping, fishing, boating, swimming, hiking and hunting. The new neighbors bring in millions of dollars of revenue to the local community and those that feared “the end of a way of life” are now bringing relatives and friends back to see the old place and to share a little history.

Many seasonal businesses have sprouted up in the area providing overnight accommodations, food, bait and convenience stores and a waterpark. The Perry downtown area has become the antique hunters dream. Other visitors seek the fishing adventures of a lifetime. Big crappie, bass and catfish top the list with an occasional walleye thrown in. Most fisherman are happy all season. The average of two hundred



Mark Twain Lake is not only beautiful but meets the needs for recreation, flood damage reductions and hydropower.

bass tournaments held here each year attest to the success.

Mark Twain Lake offers more than just fish. The Clarence Cannon Wholesale Water Commission furnishes seventeen communities with fresh drinking water and is expanding as this is written. The Clarence Cannon Dam has provided billions of dollars of flood damage reduction for downstream farmland, homes, wildlife, crops, and even along the St. Louis shoreline.

Mark Twain Lake recreation areas offer an expanded special events area, shooting range, a visitor center, multi-purpose trails, picnic shelters, three beaches, many four-lane and single-lane boat ramps, hunting/fishing lots and four high water ramps. Campgrounds now offer full-service hook-ups as well as basic sites. In 1984, 670,000 people helped celebrate Mark Twain Lake’s 1st

birthday and as the lake has grown up has become a vacation destination and over 2 million annually. We have come a long way!

Mark Twain Lake Timeline:

1983

- Clarence Cannon Dam Gates closed and lake begins to fill

1984

- Lake reaches normal pool
- Dam dedication held
- M.W. Boudreaux Memorial Visitor Center opened

1992

- Northeast Missouri Vietnam Veterans Memorial dedicated

1993

- Major regional flooding takes lake record level of 636.8

1996

- Chief of Engineers Award of Excellence – Project of the Year

- Mark Twain Lake Chamber of Commerce signed MOA to share office space in Boudreaux Visitor Center

2000

- David C. Berti Shooting Range opened

2001

- First of full service campsites opened

2004

- Cooperative agreement signed with the Ralls County Historical Society



Storm clouds loomed overhead as the District started the Mark Twain Lake dedication



Too often we read in a district-wide e-mail, of the loss of an employee's loved one. With more than 700 employees stretched across 28,000 square miles and indeed, deployed around the world, it is often difficult to know anything about their loved one. We cannot follow up every story in Esprit. Indeed, many may not wish us to do so. But one District employee, Charlie Johnson (LM), has consented to share his final message concerning the loss of his beloved wife, Sunni. The following is what Charlie told those who gathered with him when he said goodbye to her. Read quietly.

Sun Cha –

We are gathered here today to lay to rest the mortal remains of Sun Cha Johnson, my wife of 26 years. It is altogether fitting that Sunni be laid to rest here in the midst of these other departed souls because Sunni loved soldiers and in turn was loved by many young soldiers as their foster mother.

One of these, I am proud to say, is now a flag officer but many others will remember her fondly. She was a shoulder for them to cry on, a counselor when they were troubled and a stern mother when they screwed up. I have seen tough, hardened inner city kids who would face a courts martial without blinking, cry when she told them that they had disappointed her.

The proudest day of her life, I think came in 1984, when we departed Germany for Fort Hood, Texas. Unknown to either her or myself, the soldiers of the battalion had petitioned the battalion commander for a Division Certificate of Achievement to be presented in appreciation of her efforts. When she was called forward during the award ceremony to receive it, she broke down in tears and could barely talk.

Sunni tried to present herself as a hardnosed, mean woman to the world, but as most of you know she cared immensely about everyone that she knew. She was a softie from the word go, always finding ways to make people happy. Maybe that came from her early life because Sunni overcame so many hardships in her voyage through this world. She lived through the Korean War as a child refugee and then the chaos of the post-war period losing her father in the process. Her mother remarried and her new husband refused to take Sunni into his family. But she survived and made a life for herself on her own.

In 1979, we were married and she became a soldier's wife, learning to love the Army. After I retired, she missed the Army but to everyone she met she soon became someone special. Whether it was her gifts of Korean dishes, or the doughnuts she sent into the office, Sunni was always trying to make people's life



Sun Cha Johnson, the late wife of District employee Charlie Johnson.

easier. In later years, she battled the effects of diabetes, stroke and schizophrenia, never giving up and never ceasing to care for the people she knew. Finally on May 14 she met an enemy she couldn't fight when she suffered two massive strokes in the recovery room after some minor surgery. But she fought on and for a while she held her own until finally the Lord took her home. May she find everlasting peace in His company. I know that the center of my life for the last 26 years is gone, and

I will miss her forever.

Charlie Johnson

In Memory of Mary Ellen Johnson

Mary Ellen Johnson, a volunteer at the National Great Rivers Museum and a friend to all, passed away unexpectedly on November 9, 2004, at the age of 81.

A native to the Alton Area she was active in many different organizations such as the National Great Rivers Museum, YWCA Board, Oasis Women's Center Board, Caravan Resale Shop, and the St. John's United Church of Christ in Wood River. She enjoyed working at the National Great Rivers Museum because the river has always been a part of her life.

She retired from Granite City high school as an English and Journalism teacher of 20 years and enjoyed reading, writing, and collecting turtles.

She married William D. Johnson in September of 1952 who passed away December 19, 1983. They had one daughter Missy Kichline of Godfrey and three grand daughters Leigh-Ellen, Samantha, and Grace Kichline.

By volunteering, Mary Ellen played an important part in celebrating the story of the Mississippi River, and through her enthusiasm, she inspired others to do the same. Our museum visitors will miss her warmth and hospitality. We will miss her friendship and selfless spirit.



Mary Ellen Johnson guiding visitors through the National Great Rivers Museum at the Melvin Price Locks and Dam points out regional features on the giant aerial photo of the area on display there.

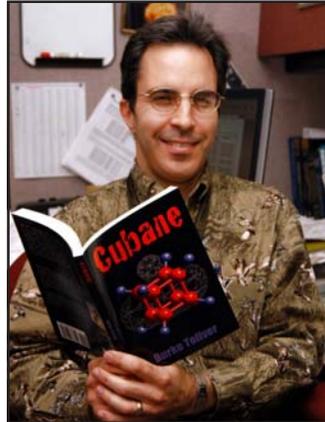


District Employee's New Book

By Gregg Kocher, ED-P

A couple of years ago, when sales of my first novel, Adak, were less than brisk, an old college buddy of mine (who works for the CIA, but says he is a State Department minion), told me that it took Steven King several tries before he got a book published and now he could write a bunch of garbage on a piece of toilet paper and make millions. So, taking those words of wisdom, I wrote a sequel and it has been published by a real publisher (well, not exactly Random House, but...).

Although the story stands alone, *Cubane* chronicles more adventures of U.S. Army Corps of Engineers employee Brick Revloc, a former bomb disposal officer who gets into more sticky situations than a kid licking a caramel apple. Revloc unwittingly stumbles upon an Irish Republican Army training



Gregg Kocher authors his second book.

camp set deep in the north Maine woods. Teamed with an American woman, who is the CEO of a large pharmaceutical research company, they develop the world's most powerful high explosive and plan a reign of terror that threatens on-going peace accords.

I started writing in 1989 while stationed in the Republic of Panama. I had an idea about an action/adventure story set atop Aconcagua, a mountain that straddles the Chile/Argentina border and is the highest mountain in the world that can be climbed without technical equipment. I had a trip planned out to make that climb, but some crisis over a guy named Noriega foiled my plans and I did not return to writing until after serving in Operation Desert Storm.

Combat has a way of energizing a person, including the imagination, and a lot of good ideas floated around in my cerebrum. But it wasn't until coming on board with the Corps of Engineers and

participating in what came to be known as the "Cape Yakak Death March" on Adak Island in the Aleutians that I got the inspiration and motivation to write the first book.

Now it's become a hobby that keeps me out of trouble... sort of. I am currently working on the third book in the series and have gathered information and ideas for a fourth. When I'm famous and appearing on "The Tonight Show," you can say you knew me when...

Kudo Award Recipients of the St. Louis District.

- **Steve Huskey** nominated by Mark Wunsch
- **Catherine Cummings** nominated by Patti Carr
- **Mike Kruckeberg** nominated by Beth Pitrolo
- **Karen Fountain** nominated by Vel Swindle
- **Phyllis Murphy** nominated by Richard Astrack

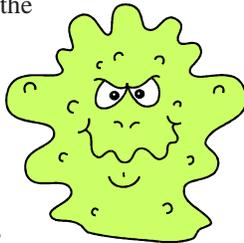
Each was awarded their choice of either a fleece stadium blanket or fleece jacket with the St. Louis Arch logo embroidered on it. Great job! Keep up the good work!

As a reminder, all non-supervisory employees are strongly encouraged to nominate a fellow employee for a Kudo Award when they see performance that goes the extra mile, to help another team member, serve the customer or another worthy reason. Award nomination forms are available by using Appendix A to the attached regulation or by using Outlook and pulling down the form under tools. Nominations can either be e-mailed or sent hard copy.

If you have additional questions, please e-mail, call extension 8551 or stop by the HR office.

Flu Prevention

If you do not meet the criteria of the FOH Policy for 2004 and/or do not get immunized there are still things that you can do to protect yourself, your family, and co-workers. Some of these are:



• Avoid Close Contact

Avoid close contact with people who are sick.

When you are sick, keep your distance from others to protect them.

• Stay Home When You Are Sick

If possible, stay home from work, school and errands.

If you are eligible and get management approval, try to telework.

• Cover Your Mouth And Nose

Cover your mouth and nose with a tissue when coughing or sneezing and then throw it away.

Cover your cough or sneeze if you do not have a tissue, then clean your hands and do so every time.

• Clean Your Hands

Washing your hands often will protect you from germs.

Use soap and warm water, wash for 15-20 seconds.

If you can not wash, use alcohol disposable hand wipes, or sanitizing liquids/gels.

• Avoid Touching Your Eyes, Nose Or Mouth

Germs are often spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose or mouth.



Retiree's Corner



The retirees met for lunch at the Salad Bowl on October 21. They were a lively group and had a lot of fun.

Lew Scheuermann said that he was taking action to improve his golf and bowling game. He is scheduled to have a knee replaced late in November. He was taking this opportunity to alert all his fellow golfers and bowlers that there was going to be some serious changes in his game. (Hope all goes well Lew, we need you on the teams.)

Bill Thomure mentioned that he is now reactivating one of his many talents. Seems that he is the Corps "Minnesota Fats" and he is giving billiard lesson to the folks in the complex where he lives. (Indications are that his childhood was not entirely a lost cause.)

Dennis Gould said that he is going to be a grandfather again. This is becoming a real problem. With his vast estate, he has to redo his will again to make sure that his estate is properly distributed when the time comes. He is going to contact the law firm of Dewey, Cheatem, and Howe, since they are well known in this field.

Larry McCarthy said that he too is a grandfather of sorts. Seems that he has a little neighbor child that gets off the school bus, right in front of his home and always comes up to him to talk about the happenings at school. Even if the child's mother is out, the child still

goes to see Larry first before going home. The mother told Larry that the child always talks about him and considers Larry as grandfather.

Joe sent word that he couldn't be at the luncheon, he was going Thanksgiving shopping. Joe was actually turkey hunting. Knowing Joe, he will probably get a very large bird and then tell his wife that he did his part and she should cook it for the family.

*FLASH*BACK October 1969

Here is some "Old" Information:

Colonel Decker spoke at the dedication of Coal Shaft Bridge on the Shelbyville Reservoir. He also appeared on Channel 5 with Bob Chase talking about the District's activities.

Gordon Cordes was appointed to the Board of Directors of the National Association of Engineering Geologists.

Rusty Williams spoke to the Kaskaskia Industrial Development Corporation About the Kasky Project.

Ed Riessen spoke to the graduating class of draftsmen from Bailey Technical School.

Among awardees for Outstanding Performance were:

- Katherine Crossley, Public Affairs
- Connie Meister, Engineering Division
- Milt Mindel, Engineering Division
- Ed Tohill, St Louis Project Office
- Tom Marshall, Engineering Division
- Joe Thompson, Shelbyville Resident Office
- Farrell Burnett, Shelbyville Resident Office
- Julia Head, Carlyle Lake

..and for Sustained Superior Performance:

- Ken Kruchowski, Public Affairs Office

- Orvil Heine, Office of Administrative Services
- Dale Modde, Engineering Division
- Newt Nickel, Engineering Division
- Milt Walter, Shelbyville Res Office
- Zana Walton, Personnel Office

Among the new Employees were:

- Dan Haskett, Engineering Division
- Al Saller, Engineering Division
- Sherman Gee KA
- Paul Koenig, Operations Division

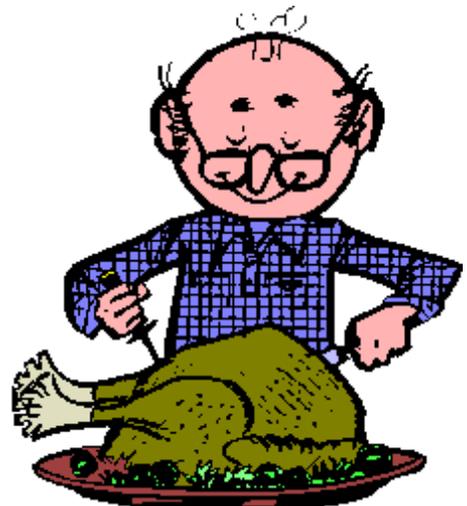
Louis Benzek received a suggestion award for suggesting a "lid stop" on the siphon breaker box at Palmer Creek Pumping Station.

Maynard Dilthey for suggesting the hard-surface welding of cutter blades on the Dredge Ste Genevieve to extend the life of blades and reduce wear

Charles Fortman for suggesting that shop tools be issued to mechanics at the Marine Repair Shop to improve safety and morale

The Golf League Champs were the "GOOD GUYS".....Bill Meldrum, Charlie Talbott, Harold Stemmermann, Glen Shadley, Paul Olson, Eldon Hunewell, Paul Nadziejko and Tony Giardina.

The Retirees meet on the 3rd Thursday of every month. We meet at the Salad Bowl Restaurant, 3949 Lindell Blvd. at about 11:00am. Hope to see you there.





More Than Just a Walk in the Woods

Don't let the incredible beauty of the fall foliage at Lock and Dam 25 near Winfield, Mo., fool you. The purpose of the visit of (L) Andy Nachtrab, Ed Demsky (in distance) and Kent Hayes when this photo was taken on October 13, 2004 was one of an ongoing series of periodic inspections conducted by District experts representing a broad gamut of skills and technical-knowledge bases. These inspections of critical navigation and flood damage reduction structures and projects are essential to ensure that they continue to function as designed and built. Here, Nachtrab, Demsky and Hayes are scrutinizing the rock dam and spillway on the Illinois side of the structure stretching across the Mississippi River at mile 241.4.