# Falls City Engineer

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U.S. ARMY CORPS OF ENGINEERS Louisville District





### **Falls City Engineer**

Vol. 7, Issue 4

District Commander
Col. Christopher G. Beck
Public Affairs Chief
Todd Hornback

Send articles to Louisville District Public Affairs office at: sarah.r.mattingly@usace.army.mil

U.S. Army Corps of Engineers CELRL-PA P.O. Box 59 Louisville, KY 40201-0059

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On the cover: Officials tour one of the new operating rooms that are part of the massive renovation of the Wright-Patterson Air Force Base Medical Center Complex.

Please conserve:
Think before you print.

## Commander's Comments

Ladies and Gentlemen,

So we can see the end of the fiscal year from here...that obviously means a flurry of action to execute our budget and meet our customer commitments.

I know there are a lot of folks throughout the district that will have some long days ahead as we continue to push for overall program success in all areas. I appreciate those efforts, and you should know that they don't go unnoticed at any level.

It also means the end of summer is approaching, and all of the folks at our locks and lakes continue to be busy taking care of industry and the public as they use our facilities. As the rain has finally stopped for a little while, more people have been out on the river and our lakes fitting in as much summer as possible before school starts for everyone.

Finally, it means that many national level awards are announced from USACE and I am very proud to congratulate Mark Ringenberg, Brandon Brummett, Carol Labashosky, and the Olmsted Project Team as they all received national level recognition.

As we wind down the summer season and head into fall, we also had a very successful summer construction period. Some of the projects shown in this issue highlight great projects the district is executing, but it only scratches the surface of the large construction effort that goes on every day throughout our footprint.

I have personally spoken with many leaders at Wright-Patterson AFB and they are extremely pleased with our efforts on projects like the hospital renovation and the Air Force museum. That feedback is indicative of the appreciative stakeholders



Col. Christopher G. Beck Commander and District Engineer Louisville District U.S. Army Corps of Engineers

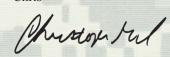
I get to meet throughout our footprint on a regular basis.

Finally, I would like to use the story about Drew McPheron's efforts with the navigation charts to highlight the creativity throughout our workforce. Efforts like Drew's help us better support all of the stakeholders that we touch in every area of our work.

Thanks again for all that you do!

**Building Strong!** 

Chris



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USACE navigation charts go mobile

Katie Newton, public affairs

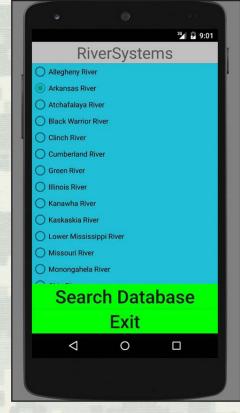
The USACE Inland Electronic Navigational Chart (IENC) Program is responsible for all inland navigational charts in the United States, which commercial and recreational users rely on. The Army Geospatial Center (AGC) recognized the need for an app that allows boaters to easily view the navigation charts from their mobile devices like smart phones and tablets and tapped into the resources the Louisville District has to offer to develop this capability.

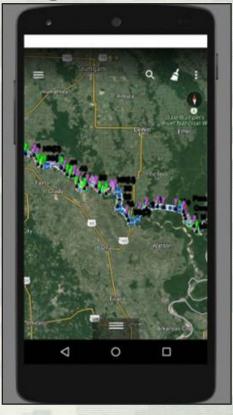
Drew McPheron, a computer engineering co-op student from the University of Louisville, has been developing the new app, which distributes 107 inland charts via the web through Amazon Web Services.

"Drew has done a really good job developing the app and is extremely receptive to ideas for improvement," said Denise LaDue with the Army Geospatial Center. "He's been extremely responsive and proactive."

McPheron has developed the code for searching the database of each river and displaying the code for KML files on Google Earth. McPheron, who used Java programming, XML, and Android Studio to work on the app is happy that his skills have been put to good use, especially to benefit others.

"When I first started helping with the app, functionality and ease of use were the most important parts I considered," said McPheron. "I wanted it to both work





properly and be user-friendly."

Currently, these charts are only available easily by using a desktop computer or hard copy charts that must be ordered through the Government Printing Office.

"The app itself, I imagine, is going to be used very broadly by the commercial industry, like the towing companies, and recreational users as well," said LaDue.

The prototype of the mobile app for

Android devices is still in the early stages of development but the plans are for it to be refined and enhanced in the coming weeks.

Changes will include the USACE branding on the opening page of the app, query by miles, state or individual chart cell, and web map services. The IENC program is anticipating early October 2015 for beta testing of the application.

### Construction of Caesar Creek Lake marina under way

Carol Labashosky, public affairs

The State of Ohio continues to work with the Army Corps of Engineers Caesar Creek Lake, Waynesville, Ohio, for a new marina complex. The construction has continued throughout the summer, and the contractor has begun installing dockage systems that will provide docks for more than 100 boats when this segment, phase one, is complete.

The lake currently has five boat ramps, but the need for more dockage has been voiced by customers for years, according to Chris Rapenchuk, Caesar Creek Lake

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Wetland plantings and bank stabilization are part of phase one of the marina construction project.

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Manager. The \$8.5 million marina complex was originally included in the master plan to enhance the recreational opportunities but it was never funded.

Now, the project is moving along. The new Marina phase one should be completed by December 2015. The work involved in phase one includes parking lots, bridges, roadway, fish structures, bank stabilization, wetland

planting, renovation of a Youth Fishing Pond, a floating marina store, dockage for 110 to 120 vessels and excavation and installation of utilities. The utilities will also support the facilities under construction and the future facilities and amenities outlined in phase two.

The State of Ohio hopes to develop phase two with private funds in the future, which would add an additional 200 docks to the site with more parking lots. The State is meeting with potential concessioners in late August to develop an operational plan for the site.

"It's a collaborative effort that will build our community's commitment toward our parks and improve the quality of life for generations to come," said Rapenchuk.

### Environmental

### Public meeting held for Lordstown education laboratory site

Katie Newton, public affairs

The U.S. Army Corps of Engineers Louisville District held a public meeting to accept comments on the Proposed Plan for a No Action decision at the Trumbull Area Multi-Purpose Environmental Education Laboratory (TAMPEEL) site within the former Lordstown Ordnance Depot (FLOD) in Lordstown, Ohio, Aug. 18.

The meeting gave stakeholders and members of the public an opportunity to comment on the Corps' proposed plan of No Action at the site. Comments, which will be considered in the final decision-making process for the TAMPEEL site are

being accepted until Sept. 4.

The Department of Defense owned the 564-acre FLOD from 1942 to 1967 to transport, store, repair and maintain military equipment and supplies. In 1967, DoD transferred 39 acres on the northwestern corner of the FLOD to the Lordstown Board of Education to be used for the TAMPEEL site.

In 2011, USACE completed a remedial investigation (RI), which included review of the site history, environmental sampling, and a human health and ecological risk assessment. A suspected disposal area was also investigated as

part of the RI. Based on the analytical results of soils, sediments, surface water and groundwater reported in the RI for TAMPEEL, there was no evidence of hazardous materials disposal. The RI also concluded that no remedial action is necessary to protect human health and the environment at TAMPEEL for educational or recreational use. Therefore, USACE recommends no further remedial action at the TAMPEEL site.

For more information visit http://bit.ly/LordstownOrdnanceDepot.

### Military

# Air Force Museum expansion moves along



Katie Newton, public affairs

The new fourth building, part of the expansion project of the National Museum of the United States Air Force in Ohio is now completely underneath a roof and is on schedule to open to the public in spring 2016. The museum—the largest military aviation museum in the world—will now include a fourth building with 224,000 square feet of exhibition space.

The U.S. Army Corps of Engineers Louisville District awarded the \$35.4 million contract for the expansion project to Turner Construction Co., Washington, D.C., which broke ground in June 2014.

### Wright-Patt hospital renovation improves patient care



As part of the massive renovation at the state-of-the-art Wright-Patterson Air Force Base Medical Center Complex, there are eight new operating rooms to provide better patient care.

Katie Newton, public affairs

In one of the most logistically-challenging renovations the district has seen, the U.S. Army Corps of Engineers Louisville District helped to complete the monumental task of renovating 260,000 square feet in over 41 departments throughout the Wright-Patterson Air Force Base Medical Center Complex in Ohio—all with minimal impacts to patient care.

"Doing a renovation of a facility is one thing, but doing a renovation of a working hospital and to keep it running is unbelievable," said Louisville District Commander, Col. Christopher Beck. "It's an impressive project."

A ribbon-cutting ceremony was held July 31, 2015, to celebrate the completion of the \$99 million dollar multi-phase renovation project that took just over three years to complete. The project involved renovating the 1950s-era hospital to a state-of-the-art health facility with an overhauled Intensive Care Unit, new dining facilities, updated patient rooms, surgery areas, administrative areas and a dental clinic.

The project provided eight operating rooms, including a new hybrid operating room, a laser eye suite that treats 15-20 service members daily, and a plastic surgery center now equipped with Wi-Fi, which helps staff to move patients through the department much easier.

"It's great to hear from the doctors

first-hand about how the renovations have impacted their day-to-day processes and how it's improving medical care," said Steve Farkus, Louisville District project manager.

Among all of the new changes, the staff favorite is the new 20,000-square-foot dining facility, which is an upgrade from the small closet-like space that existed previously. The kitchen and dining area are complete with new serving stations,

state-of-the-art brick oven pizza maker, and a high-efficiency dish washer capable of handling over 14,000 dishes per hour giving the dining staff the space and tools they need to serve more than 400 patients and staff breakfast and 500 for lunch each day.

"Everything that has happened here is for the benefit of our patients," said Marc Dowler, chief of Medical Enlisted Force for Air Force Materiel Command. "This is phenomenal. Our patients and staff are all very appreciative of everything we have here."

The massive renovation called for strong partnering for a successful project. The groups who came together include the Defense Health Agency, 88th Medical Group, 88th Civil Engineer Directorate, Air Force Civil Engineer Center, the USACE Louisville District, the construction contractor Walsh/Butt Joint Venture and the design contractor HKS/WS.

"A project this complex was like assembling a Swiss watch—a large number of moving parts that had to be perfectly synchronized," said Farkus. "The team took on the challenge and brought this across the finish line. I was honored to be a part of this one."



A formal ribbon-cutting ceremony was held July 31, 2015, to celebrate the completion of the 260,000-square-foot renovation of the Wright-Patterson Air Force Base Medical Center Complex.

Katie New

### Spotlight

### Program Manager of the year announced Ringenberg lauded by leadership, customers



Lt. Gen. Thomas Bostick, USACE commander, and Command Sgt. Maj. Antonio Jones present Louisville District Program Manager Mark Ringenberg with the national program manager of the year award.

Carol Labashosky, public affairs

The 2015 Army Corps of Engineers Program Manager of the Year Award goes to Louisville District's Mark Ringenberg. Ringenberg was selected among all the Corps' mission-area representatives which makes the distinction all the more meaningful.

He oversees the management of the Air Force Reserve Program related to planning, coordinating, engineering design and construction. As chief of the Army Reserve West Support Section, Reserve Project management branch, he heads up all program and project matters for Army and Air Force Reserve programs. In his nomination, Ringenberg was credited for serving as a role model and mentor to those less experienced in project management.

His program management and oversight includes supervising a staff of eight project managers with a program execution estimated at close to \$1 billion in military construction and \$500 million in sustaining, restoring and modernization/operation and maintenance for the Air Force Reserve and Army Reserve.

Of note, Ringenberg was credited

with developing a strong, resilient team of project management experts with superior program delivery for the Air Force Reserve program. Several of his projects have been selected for Air Force Design awards including the Air Reserve Personnel Center at Buckley Air Force Base, Denver, Colorado.

"His outstanding partnering skills and orchestration with the project delivery team is the reason why the Air Force Reserve Command is consistently pleased year in and out, said Joanne Milo, Deputy Division Chief, Planning, Programs, and Project Management Division (P3MD). "The district really took a look at who we had as a candidate and he rose to the top. He gave us so much good material to work with," said Milo. "The scope and breadth of his work revealed in the award submittal packet were tremendous on a national scale," she said, "and it shows the importance of the military mission."

"I think the key to being a successful program manager is to develop meaningful relationships not only with your customer but with all elements within your organization who work with you to execute the program," said Ringenberg.

Critical in project management is customer satisfaction. Customer satisfaction surveys revealed that the programs and teams Ringenberg led met or exceeded customer expectations. The Air Force Reserves Command (AFRC) customer, Scot Wall, engineering project manager, reported, "Mark challenges his staff, engineering, resource management and contracting to think outside the box to solve even the most complex issues." Wall commented that Ringenberg always goes the extra mile to find ways to help the AFRC get the best product at the least cost.

Ringenberg has been with the Corps since he started co-oping here when he began his career with the district as a civil engineer intern in 1981. Currently, he serves on the Purdue University Engineering Alumni Association Board of Directors, West Lafayette, Indiana, in conjunction with the College of Engineering. "He continues to share his expertise in engineering developing a legacy of outstanding work for others to emulate," said Milo.

### Brummett is USACE Silver Jackets Coordinator of the Year

Carol Labashosky, public affairs

Brandon Brummett, Louisville District Army Corps of Engineers outreach coordinator, has been selected as USACE Headquarters Silver Jackets coordinator of the year.

Brummett serves as a regional lead for the Silver Jackets program, representing USACE on the Indiana and Kentucky teams. The Silver Jackets meet monthly to discuss state-of-the-art tools and resources to address flood mitigation efforts.

His participation on the Indiana and Kentucky Silver Jackets Teams has served the citizens well by bringing together representatives of federal and state governments, non-profits, and academia to collaboratively reduce flood risks within the states, according to the award submission and citation.

Manuela Johnson, Indiana state lead, said, "Mr. Brummett has continually demonstrated his commitment to the team vision, and program goals. He truly understands that the team comes first, and he has been willing to put aside the interests of his own agency for the



Outreach Coordinator Brandon Brummett is recognized for regional flood mitigation efforts by Louisville District Commander Col. Christopher Beck.

betterment of the team. He always ensures the team is credited with success and looks for opportunities to share Indiana's successes with others."

Outreach is his forte. During Brummett's tenure in the Silver Jackets, agency representation has more than doubled to more than 30 members.

"It is currently hailed as a national

model for effective Silver Jackets state teams," said Sharon Bond, project planning chief.

Brummett has served as a speaker on Silver Jackets initiatives at national and state forums such as the 2014 USACE National Flood Risk Management meeting in Southbridge, Massachusetts.

### Olmsted Dam project team grabs USACE innovation of the year award



 $Self-consolidating\ concrete\ is\ poured\ into\ a\ lower\ pier\ shell\ at\ the\ Olmsted\ Dam\ Construction\ Project.$ 

Carol Labashosky, public affairs

A special group of Olmsted Dam project team members received the Army Corps of Engineers Headquarters Innovation of the Year Award. They created a "Self-Consolidating Concrete" (SCC) mixture and concrete placement techniques that were used in construction of the Olmsted Dam Project on the lower Ohio River. Team members include David Kiefer, Lakes and Ohio River Division (LRD) regional technical specialist; Matt Whelan, senior geotechnical/concrete engineer; Joe Kissel, senior concrete materials technician; Bill Gilmour, Olmsted constructability engineer; Mick Awbrey, deputy chief, Olmsted Division; Mike Braden, chief, Olmsted Division; and Steve Durrett, former district engineering division chief and deputy district engineer.

The Olmsted Dam is composed of a tainter gate section and a navigable pass section. The dam is being constructed of precast concrete elements called shells that are constructed on the Illinois bank, transported to the river and placed over foundation piles in the riverbed. The shells are individual structural elements that fit together to create the dam. After the shells are set in place, they are filled with concrete and form a permanent segment of the dam.

The team received the headquarters recognition because they came up with an innovative construction technique and SCC mix design to use in the trunion girder anchorage zone within the Lower Pier (LP) shells. David Kiefer, a division regional technical specialist said, "SCC is basically concrete that is very wet and flowable, and doesn't need external energy or vibration to fill concrete forms; it consolidates on its own.

"It incorporates conventional concrete

Continued on page 8

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materials, but in different proportions and with different admixtures than conventional concrete."

A traditional concrete mix would require workers to access and vibrate the concrete during placement. Due to the geometry of the LP shells, placing concrete traditionally would have required a confined space entry for the workers and equipment. Using SCC for the LP shells significantly reduced contractor WGA and USACE employee exposure and was therefore a safety bonus.

The aspect of the LP shell construction that benefitted the most from the SCC approach was the trunion girder anchorage zone. This area of the shell contained very congested and tightly spaced reinforc-

ing steel, post-tensioning tubes and steel plates. As designed, this concrete would be placed in discrete two-foot-thick horizontal layers with traditional construction joint treatment after every lift had hardened. The lift joint preparation and access in all of the embedded metals would have been extremely difficult, according to Kiefer. Adopting a technique from roller compacted concrete construction, each individual lift was allowed to stiffen, but not harden, before the next lift was placed. This "warm joint" approach allowed the whole trunion girder anchorage zone to be built in one semi-continuous operation.

Extensive testing was conducted for the warm-joint approach. Even a full scale mock-up test was performed at the site to

prove that the SCC and warm-joint technique would perform reliably in real world conditions. Proven successful, the warmjoint construction method was ultimately placed into the production cycle.

Mike Braden, chief of Olmsted Division said "It's this type of critical thinking that is driving significant cost savings while achieving an almost two-year gain on schedule." He said that an innovative construction project like Olmsted requires innovative thinkers.

"Every time I've asked, the project team and our contractor partner WGA, have answered the bell by engineering a way forward that improves cost, schedule, quality and safety performance over the status quo," Braden said.

### Labashosky wins national award for community relations

Sarah Mattingly, public affairs

Carol Labashosky, USACE Louisville District public affairs specialist, was honored with a national-level award for her work on the district's Green River Watershed Summit held Feb. 20-21, 2014.

The U.S. Army Corps of Engineers recently announced the recipients of the Locke L. Mouton awards, which are awarded to Corps public affairs professionals in several categories. Labashosky's contributions to the success of the Green River Summit earned her first place in the community relations category.

"The summit brought together representatives from the myriad parties who have an interest in the future of the Green River Watershed—private land owners, government agencies, industry, academia, said Labashosky. "It was a great platform for education and outreach."

Organizations, agencies and interested individuals with a stake in the health of the Green River were invited to learn from experts and share ideas centered around protecting the watershed—an ecological treasure in Kentucky. Labashosky was instrumental in coordinating communication, hosting internal staff meetings among the district's operations, planning, hydraulics and hydrology, engineering, and the Green River Lake staff to communicate effectively the summit's purpose of ecosystem restoration.

"I'm thrilled," said Labashosky of the award. "It was a team effort. I worked with the district's planning section lead project manager Nate Moulder, who was



Green River Watershed, Ky., Summit attendees look at a map of the region to examine where sustainable agriculture can improve the area.

really the brains behind the operation."

Todd Hornback, public affairs chief, emceed the event and lended expertise.

The coordinated teamwork of Labashosky and Moulder to form and execute the agenda and obtain highlycredentialed guest speakers provided critical information to the Corps for future decision-making.

"It produced very focused feedback that will be used to improve the watershed," Labashosky said.

Brig. Gen. Richard Kaiser, Great Lakes

and Ohio River Division commander, congratulated Labashosky in a letter, saying "Your award selection signifies an appreciation for the impact of your hard work and demonstrates how much you are personally invested in [the division]...Well done!"

Her work on the Green River Watershed Summit also earned Labashosky first place in the Herbert A. Kassner public affairs competition in the community relations, individual achievement category.