

Crosscurrents

Serving the St. Paul District since 1977

February 2013 | Vol. 39, No. 2

Ice surveys

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**Reservoir
water management**

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U.S. Army Corps of Engineers
St. Paul District





District employees Al VanGuilder, left, survey technician, and Bill Chelmowski, marine machinery mechanic, use an airboat to measure ice on Lake Pepin, near Wabasha, Minn., Feb. 13, during the first Mississippi River ice surveys of the year.

Photo by Patrick Moes



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Views and opinions expressed in **Crosscurrents** are not necessarily those of the Department of the Army or the U.S. Army Corps of Engineers.

Articles and photography submissions are welcome and must arrive by the 15th day of the publishing month for consideration. Submissions can be mailed or emailed.

Submissions should be in Microsoft Word format for all written copy and photos should be no smaller than a 5 x 7 at 300 dpi. All photographs appearing herein are by the St. Paul District Public Affairs Office unless otherwise accredited.

The mission of **Crosscurrents** is to support the commander's internal information program for the St. Paul District and its stakeholders.

Crosscurrents also serves as the commander's primary communication tool for accurately transmitting policies and command philosophy to the St. Paul District community and its customers.

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Crosscurrents is read by super supply technicians like Patrick Harding, logistics.

Photo by Patrick Moes



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Click on a logo to go to the St. Paul District social media page, where you can like us, watch videos about us or see more photos.

Comments from the top

Team,
Today we are faced with the challenges of operating a federal agency during a time of extreme fiscal uncertainty. We are faced with the collision of three fiscal realities either already upon us or coming to fruition in the near future. The first of these occurred March 1 when President Barack Obama signed the sequestration order for Fiscal Year 2013 pursuant to the Balanced Budget and Emergency Deficit Control Act. For the Department of Defense, this equates to cutting roughly \$600 billion during the next 10 years. For the remainder of this fiscal year, the reduction is \$63 billion.

One of the methods the Department of Army is going use to accomplish their reduced funding is by directing that an administrative furlough occur. This type of furlough is different from the shutdown furloughs we've faced in the past. Shutdown furloughs occur

because of a lapse of funding. We do not have that in this case. Under an administrative furlough, all employees are subject to furlough. There are some exceptions, but civil works programs do not qualify for them. However, the Corps' Headquarters has asked for an exemption to policy for Civil Works funded programs.

Until that waiver is either granted or there is an Act of Congress, we are to continue planning for a furlough. The district's leadership has been briefed and planning is under way. There will be impacts to everyone in the district, and there will be impacts to our mission execution. Furloughs are limited for up to 176 hours between the initial furlough date and the end of the fiscal year; they are generally limited to 16 hours per pay period; overtime/comp time will not be used to make up for the lost hours during furlough and the furlough is generally structured as to not place the

burden on states' unemployment compensation programs. I have asked for regional and national consistency as to how we execute our missions with a furlough.

The other aspect of the sequester is the reduction in our base budget. Civil works programs have a targeted 5 percent reduction. How this reduction is applied to our programs is not known at this time. Remember that we are operating under a Continuing Resolution and it expires March 27. The Corps is planning to account for the 5 percent reduction in the upcoming work plan development process. Questions still remain regarding who will decide whether districts or headquarters will determine how the 5 percent is applied.

The bottom line is that the Corps' leadership is coordinating with the Department of the Army to minimize impacts to the Civil Works programs



Col. Michael J. Price

U.S. Army Corps of Engineers
St. Paul District Commander

and to its professionals. At a personnel level, each of us should begin to take prudent measures in planning for a reduction in program and for a furlough.

We will get through this. We are professionals, and we are the best the Corps has to offer. I am proud to serve with each of you.

**BUILDING STRONG !
ESSAYONS!**



Al VanGuilder, operations, left, and Bill Chelmowski, operations, operate an airboat during ice surveys on Lake Pepin Feb. 13. [Click on the photo to see the YouTube video.](#)
 Photo by Patrick Moes

Spring is near Ice surveys begin on Lake Pepin

Story by Patrick Moes

A few district employees from the channels and harbors section are getting the opportunity to take out the district airboat on the Mississippi River this month to complete ice measurements on Lake Pepin, near Red Wing, Minn.

The first measurements began Feb. 13, and they will continue on a weekly, or biweekly, basis until the navigation season begins.

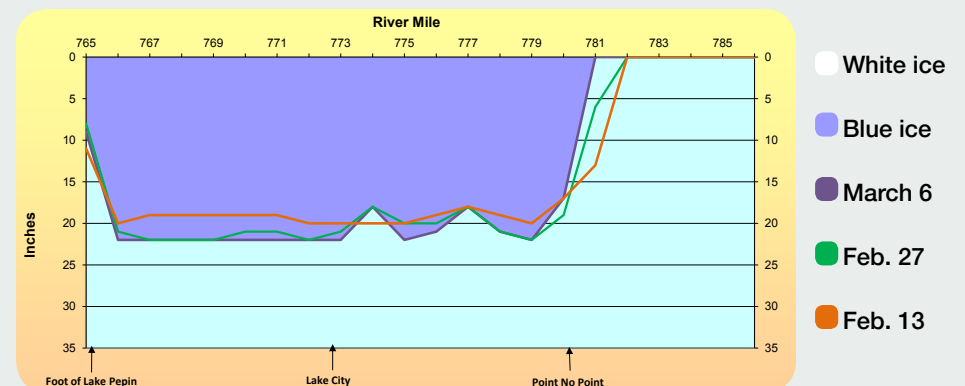
The ice survey team is checking the ice depth by navigating between ice and open water along the river. The team checks several spots for the current ice depth. The depths are used in a weekly report, and the measurements help the navigation industry determine when it might be possible to get tows upstream to St. Paul, Minn., said Nick Lorenz,

operations.

Survey crews from the Corps' Fountain City Service Base in Fountain City, Wis., use the airboat and a global positioning system to identify the exact measurement locations. Surveys for River Mile 770 during the past five years are:

- Feb. 13, 2013, 19 inches;
- Feb. 15, 2012, 15 inches;
- Feb. 16, 2011, 22 inches;
- Feb. 17, 2010, 26 inches; and
- Feb. 18, 2009, 22 inches.

Lake Pepin, located on the Mississippi River between Red Wing and Wabasha, Minn., is used as the benchmark because the ice melts slower in this area due to the lake width and the slower current. Lorenz said, the lake is usually the last obstacle preventing northbound





Bill Chelmowski, operations, uses an ice auger to drill a hole on Lake Pepin, near Wabasha, Minn., Feb. 13, during the first Mississippi River ice surveys of the year.

Photo by Patrick Moes



Al VanGuilder, operations, measures ice on Lake Pepin, near Wabasha, Minn., Feb. 13.

Photo by Patrick Moes



Bill Chelmowski, operations, applies anti-fog fluid to his helmet.

Photo by Patrick Moes



Al VanGuilder, operations, prepares the airboat for ice measurements on Lake Pepin, near Wabasha, Minn., Feb. 13.

Photo by Patrick Moes

tows from arriving in St. Paul, Minn.

For many of the people who live in the Midwest, the first tow of the season is the unofficial start of spring. The first tow to break through Lake Pepin in 2012 was the Motor Vessel Deana Ann, a tow operated by Marquette Transportation Company, Inc., of Paducah, Ky., March 17. The average opening date of the navigation season in St. Paul for the last 10 years is March 20.

Lorenz said, the Corps does not anticipate any upbound tows in Lake Pepin until at least March 15 due to ongoing construction at Lock and Dam 6 until March 11. Data from the ice surveys is posted on the St. Paul District's website. For figures on past and present Lake Pepin ice measurements, see: <http://www.mvp.usace.army.mil/Missions/Navigation/IceMeasurements.aspx>.



Headwaters reservoirs: Water management provides flood risk reduction, recreation

Story by Patrick Moes (Part II of III)

Regulating the Mississippi River Headwaters reservoirs takes a lot of coordination, monitoring and science, according to Brian Johnson, Mississippi River Headwaters water control engineer.

Johnson is responsible for managing the six Headwaters reservoirs – Lake Winnibigoshish, Leech Lake, Pokegama Lake, Big Sandy Lake, Cross Lake and Gull Lake – as well as managing Red Lake, the largest lake located entirely within Minnesota.

Johnson said reservoir management is determined by manuals for each respective reservoir. “We regulate according to an approved water control manual,” said Johnson. “The current manual was approved in January 2003, and it is currently being updated to incorporate the changes from the 2009 Reservoir Operating Plan Evaluation, or ROPE, study.”

The Mississippi Valley Division, St. Paul District’s higher headquarters, is responsible for approving any changes to the water control manual, he said. Traditionally, the manual is updated every 10 years.

To help with the reservoir management, Johnson said, he relies

on a lot of coordination with the district’s park rangers, as well as other federal agencies. “I’m always looking at each of our sites for information,” he said. “From snow depths, precipitation and snow water equivalents measurements to ice thickness and frost depths, their measurements and the data they collect provide valuable information to me to determine winter drawdown levels.”

The park rangers provide information during the summer, too. The staff provides daily precipitation, lake and dam levels. Johnson said, the data is critical in the process of regulating the reservoir levels.

Johnson relies on more than the district’s park rangers to get the information he needs. He said managing the reservoirs requires direct coordination with other agencies as well. “I talk with meteorologists at the National Weather Service, or NWS, on a regular basis,” he said. He added that he looks to them for their five-day forecasts, their snow depth monitoring, precipitation locations and the total amounts for each storm. “You have to consider all of the information to make the best judgments,” he said. “Monitoring is the big thing. We look



Brian Johnson, engineering and construction, reviews the Mississippi River Headwaters water control manual at the district office in St. Paul, Minn., Feb. 22.

Photo by Patrick Moes



Renee Hanson, operations, adjusts the dam at the Crosslake Recreation Area Aug. 3, 2012.

Photo by Patrick Moes



Mary Kay Larson, Gull Lake Recreation Area park manager, operates the dam during a gate change.
Photo by Brian Turner



Water flows over rocks on the Mississippi River Headwaters at Lake Itasca, near Bemidji, Minn.
Photo by Patrick Moes

at it every day. We look at weather conditions, water levels and forecasts.”

In addition to all of the data collected by the district staff and federal partners, Johnson said he uses historic data to help determine trends. It’s another tool in the tool box, he added.

“I use the historic information to help me determine when to make changes to reach certain levels,” said Johnson. “The goal is to reach the summer operating bands, which begin prior to the fishing opener and end after Labor Day.”

The drawdown levels vary according to each reservoir, but Johnson said, the goal for each of them is to create storage for the spring runoff. He added that drawdown amount is determined, in

part, on weather conditions, such as the snow water equivalents or amount of water contained within the snowpack.

According to the Headwaters control manual, “A considerable amount of hydrologic judgment is required during the drawdown process. Considering the myriad number of variables, there will be years when, even with the best of intentions, the ideal drawdown situation will not be achieved.”

Looking at historical data, weather reports and guide curves are not the only challenges Johnson faces as the Headwaters water manager. He said one of the most challenging aspects of his job is dealing with the floods and droughts. “It requires the most work

and coordination,” he said. “During a flood or drought, we do day-to-day monitoring trying to figure out high the reservoirs will raise or fall, and it involves a lot of teamwork from the park rangers and other agencies. We are constantly trying to get accurate information to help people make informed decisions.”

Providing information to the public is usually done through federal partnerships with agencies such as the NWS. Johnson said, “We provide our reservoir release plans to them, so they can provide a forecast to the city of Aitkin, Minn., among other things.”

Diane Cooper, NWS meteorologist, said, “The close partnership between the National Weather Service and

U.S. Army Corps of Engineers is vital, especially during floods and droughts.” Specifically, she said, the Corps provides information on reservoir releases, which directly influences the NWS’ river forecasts. She added that the Corps provides daily snow totals water content amounts, as well as rainfall and temperature data through the NWS Cooperative Observing Program. Cooper said, “These observations are key to our spring flood outlook products, as well as the seven-day river forecasts. The partnership between the Corps and U.S. Geological Survey to support river gauges allows the NWS to provide location specific river forecast services, too.”



Chad Anderson, operations, left, and Joseph Lakey, operations, work on repairing the diagonals on one of four gates at Lock and Dam 6, near Trempealeau, Wis., Feb. 19.

Courtesy photo



Jim Ulrick, operations, works on the Lock and Dam 6 dewatering project, near Trempealeau, Wis., Feb. 19.

Courtesy photo

Fountain City crew completes maintenance task faster than expected

Story by Patrick Moes

Working on the Mississippi River during the coldest part of the winter, a labor crew from the Fountain City Service Base in Fountain City, Wis., proved their mettle recently by completing a task 2.5 days faster than expected at Lock and Dam 6, near Trempealeau, Wis.

The team – managed by Scott Uhl – began prestressing the lock miter gates Feb. 19 in support of the ongoing

dewatering project. Beth Killian, the engineer responsible for the project, said, the purpose of prestressing the gates is to transfer all of the dead load from the gate – 139,000 pounds for the 23-foot tall gate – into one of 12 diagonals. The diagonals are tension bars for the gates, and there are four gates at the lock. The 23-foot gates are on the upstream side of the lock and the 25-foot gates are on the downstream side. The height difference is due to the difference in elevations between the

upstream and downstream pools.

Killian said, transferring the load into the diagonals helps the gate become vertical, or plumb. “The team successfully accomplished this with 4-foot wrenches, mechanical winches and massive clamps,” said Killian. She added that the team was able to complete the task with precision because every gate was within an 1/8 inch of being perfectly plumb.

During dewaterings, the team removes the diagonals from the miter

gates, and the gates are raised to perform maintenance on the critical components. Killian said, the diagonals are one of the most critical aspects of the dewatering, and they are one part in the dewatering process that is nearly finished. The dewatering project is currently scheduled to be completed by March 11 to allow for the navigation season to open. The labor crew team included: Billie Fink, Joseph Lakey, Chad Anderson, Kraig Berberich, Jonathan Peters and Kim Wenger.



Members of the Paul Bunyan Scenic Byway and Corps park rangers Deb Griffith, Mary Kay Larson, Corrine Hodapp and Renee Hanson celebrate earning the Golden Soup Ladle, Amateur Division, award during the Crosslake WinterFest awards in Crosslake, Minn., Feb. 2.

Courtesy photo



Bobber the Water Safety Dog (Renee Hanson, operations), left, Rob Nelson and Ron Johnson pause for a photo while making soup at the Crosslake WinterFest in Crosslake, Minn., Feb. 2

Photo by Corrine Hodapp



Isabel Scalia, Age 5 and under category, coloring contest winner.

Park rangers brave cold weather, win award

by Patrick Moes

Park rangers from the Crosslake Recreation Area and Gull Lake Recreation Area, near Brainerd, Minn., woke early in the morning to make an award-winning batch of soup for the Crosslake WinterFest in Crosslake, Minn., Feb. 2.

Corrine Hodapp, southern Headwaters section supervisor, said, the team braved frigid temperatures to start a fire that heated the cast iron cauldron. The team's effort earned them the Golden Soup Ladle, Amateur

Division, award.

"We started the day at 7 a.m., it was dark and -14 degrees," said Hodapp. "Once the fire was started, two people lifted the 30-gallon cast iron cauldron onto the heat to start cooking." She added that the soup had to be prepared on site so folks from the Corps and the Paul Bunyan Scenic Byway, or PBSB, started chopping vegetables. The team stewed the soup over the open fire until it was ready to serve. Hodapp said, Paul Bunyan, also known as Rob Nelson,

served soup to all of the visitors.

Hodapp said "Many folks that voted for the Corps wrote in that they voted for us because of our presentation and all the fun activities."

Hodapp said the team partnered with the PBSB, a cooperative association with the Corps since 2004, to develop the activities offered to the outdoor enthusiasts. The activities included: coloring contest; soup entry; bonfire with hot chocolate and s'mores; appearances by Bobber the Water

Safety Dog and coloring water safety iron-on decals for T-shirts.

The 90 participants that entered the coloring contest were divided into four separate age groups. Hodapp said, the PBSB donated four lifejackets – one for each winner.

After things heated up around 2 p.m. with temperatures reaching 7 degrees, Hodapp said, more than 300 people visited the site. "We served over 200 people Paul Bunyan's Hearty Vegetable Beef Soup."

Headwaters recreation section receives award

by Patrick Moes

The district recently selected the southern Headwaters recreation section as its 2012 Government Employee Safety Now Award recipient.

The section includes park rangers from Crosslake Recreation Area, Crosslake, Minn., and Gull Lake Recreation Area, Brainerd, Minn. Both areas are highly visited recreation sites, collectively boasting more than 1 million visits in 2012.

The team's "safety-first" approach led to accomplishing numerous missions with zero lost-time accidents, water-related fatalities or reportable first aid cases, said Corrine Hodapp, southern Headwaters section supervisor. She added that the safety record was accomplished during one of the worst flooding events in the history of Gull Lake Dam. The record-setting May

2012 rainstorm tied the highest reservoir level ever recorded in the 100-year history of the dam. The rainstorm caused flash flooding in Duluth, Minn., and also caused the three locks and dams in Minneapolis to close briefly due to safety concerns.

Hodapp said, a key aspect of the team's plan included implementing an effective, reliable and adaptive use of resources to provide safe and healthy recreational experiences to current and future generations.

Barry Simmonds, district chief of safety and occupational health, said, "Every year when I look at our nominations, I'm inspired by the many accomplishments our district team is involved. We have a lot of folks involved in a great many safety related activities, and their hard work has paid off in a huge way."

The southern Mississippi River Headwaters recreation section includes:

Corrine Hodapp, supervisory park ranger;
Mary Kay Larson, Gull Lake Recreation Area park manager;
Brian Turner, Gull Lake Recreation Area natural resource specialist;
Deb Griffith, Crosslake Recreation Area park manager; and
Renee Hanson, Crosslake Recreation Area park ranger.



Paul Johnson, engineering and construction, measures snow during a survey in Forest Lake, Minn., March 4.

Photo by Patrick Moes



Bill Odell, engineering and construction, documents snow quantities during a survey in Forest Lake, Minn., March 4.

Photo by Patrick Moes

Snow surveys help district prepare for flooding

by Patrick Moes

The district sent a survey team around Minnesota to conduct snow surveys the first week in March to collect real-time data on the conditions impacting the region before the spring thaw.

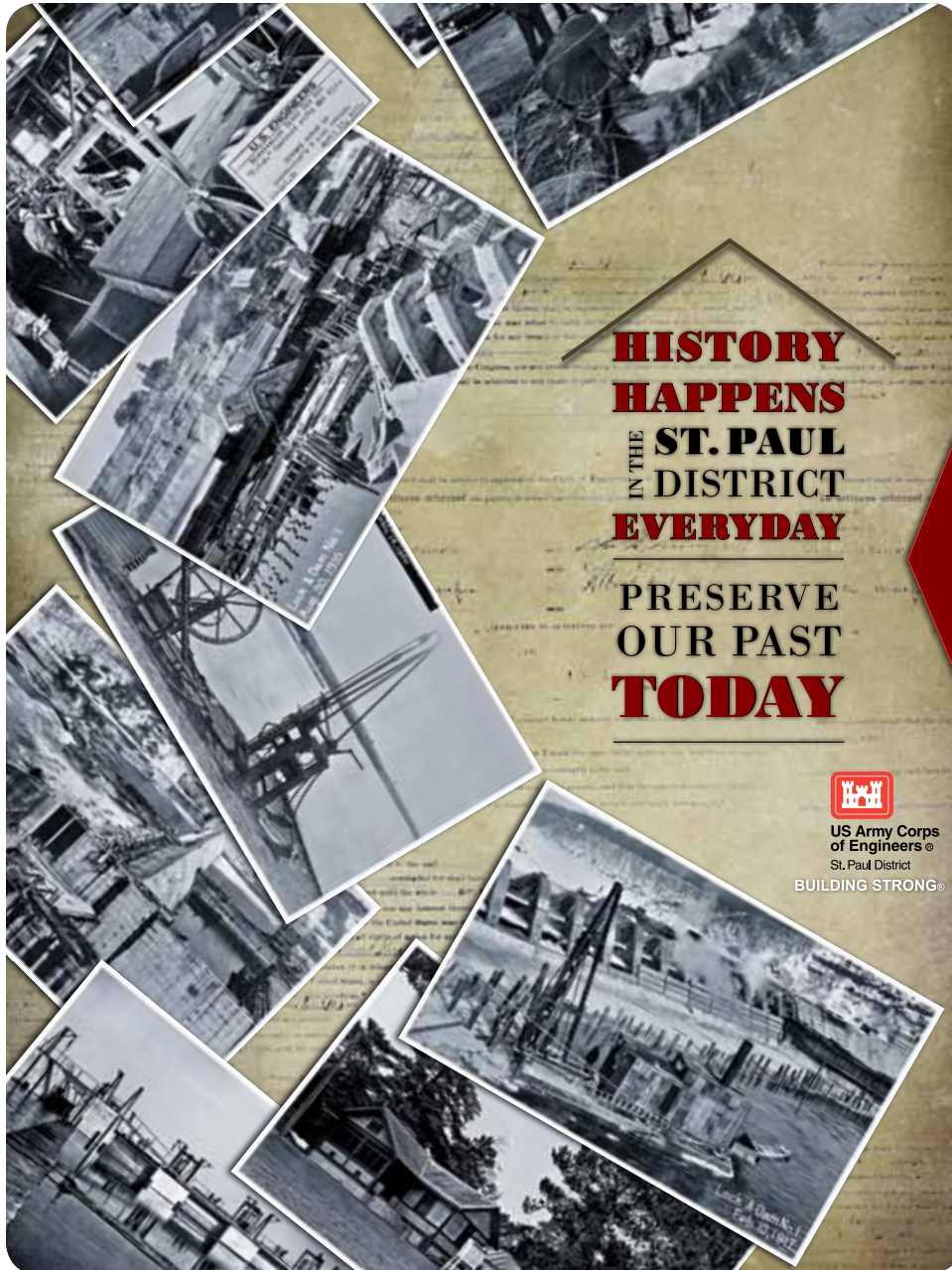
The surveys will aid the Corps' water management team in determining the snow water equivalent, or how much water, is located within the snowpack. Bill Odell, engineering and construction, said, the information is also shared with other agencies, such as the National Weather Service and the U.S. Geological Survey.

The survey team started their trip near Minneapolis, March 4, and they made a counterclockwise trip around the state.

Odell said, "The ultimate goal is to assist the National Weather Service in flood forecasting."

He said, the process involves going to predetermined locations and gathering snow through a tube. The snow is then measured for its weight, and the totals are converted using a mathematical formula to determine the water content.

Odell said, the Corps will monitor the region for future snow storms, and they will conduct additional surveys if needed.



History group wants new members

Story by Shannon Bauer

In the nearly 150 years since the St. Paul District began, there have been numerous historical events. From the nation's first hydro dam to historic flood fights, the district's history is created every day.

Employees that want to be a part of preserving this history can now volunteer. The district's history group is looking for a few new members.

This group, made up of people from various disciplines, is an all-volunteer group dedicated to preserving, collecting and disseminating St. Paul District history.

Examples of recent projects initiated by this group include hosting annual history and Henry P. Bosse days in the district's library, purchasing display cases for artifacts at the district's headquarters building and two visitor centers and digitizing and reproducing the district's Bosse photograph collection. Recently, this group published a book on the district's history, called *Steward of Headwaters: U.S. Army Corps of Engineers St. Paul District 1875-2000*. The group also sent 25,000 negatives taken by former district photographer

Lyle Nicklay to be digitized and assisted with the Dredge Thompson relocation to Prairie du Chien, Wis.

Current and upcoming projects include planning and coordinating the celebration of the district's 150th anniversary in 2016, updating the visitors' center at the Big Sandy Dam and Recreation Site and digitizing film.

"The history of our district gives our organization its unique character and personality," said history group member Kenton Spading, engineering and construction. "Preserving and displaying that history connects employees and visitors with our past and with one another. Being surrounded by our history fosters a sense of belonging, community and organizational pride."

The working group usually meets on a monthly basis and field site personnel may participate via phone. Different members of the group take the lead on different projects, depending on time, interest and skill set. For more information on how to get involved, please contact Spading at (651) 290-5623 or Shannon Bauer at (651) 290-5108.

**"We are not makers of history. We are made by history"
- Martin Luther King, Jr.**

Editor's Note

Do you have news you want to share with the district? Send your announcements of births, weddings, graduations, etc., to *Crosscurrents*.
cemvp-pa@usace.army.mil.

Retirements

George Braunreiter, lock and dam operator, operations, Alma, Wis.
Roland Hamborg, environmental protection specialist, project management, district office.
Randy Kraciun, biologist, planning, Rock Island District.
Jack Carr, economist, planning, Rock Island District.
Lee Kochendorfer, lock and dam operator, operations, Hastings, Minn.
Mary Muraski, writer-editor, executive office, district office.
Joseph Yanta, environmental protection specialist, operations, district office.

Congratulations

Congratulations to **Capt. Andy Maxa**, engineering and construction, on his selection for promotion to the rank of major.
Jim Mosner, engineering and construction, was selected as the Minnesota Federation of Engineering, Science and Technology Societies Charles W. Britzius Distinguished Engineer Award recipient.
Adrian Loewenhagen, operations, was selected as second mate on the Dredge Goetz.



Congratulations to **Katie Hatch**, planning, on the birth of **Jonathan Davis Hatch** Feb. 9. He was 7 lbs., 5 ozs., and he was 21 inches long.

Find me and win an award!



The first person to find this photo on our district's new Internet website, www.mvp.usace.army.mil, and emails the webpage address to George Stringham (George.E.Stringham@usace.army.mil) will receive a coin from our district commander, Col. Michael Price. The winner will be announced in the next *Crosscurrents* issue.

HINT: The photo is not on the history page.

Save the date: Change of command date announced

Maj. Gen. John Peabody, Mississippi Valley Division commander, and the St. Paul District will host a change of command ceremony at 10 a.m. on Thursday, June 20, in the Great Hall of the district's headquarters building in St. Paul, Minn. **Col. Daniel Koprowski** will take command from **Col. Michael Price**. There will be a farewell dinner for Price the night before, June 19, details of which will be announced at a later date. Price will take command of the Corps' Transatlantic Afghanistan District shortly after the district's change of command ceremony.