



US Army Corps
of Engineers
St. Paul District

Crosscurrents

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Flood of '93 soaks Upper Mississippi basin



A new \$2.3 million levee project protects the City of Henderson, Minn., from the record high flows on the

Minnesota River. For more on the Flood of '93, see pages 2-4.

St. Paul District Photo

Change of Command on August 6 brings two officers back to the St. Paul District. See pages 6-7.

Flood of '93 starts in St. Paul District



Photo by Georgia Stanonik

In St. Paul, flood waters covered Warner Road and surrounded a towboat tied up at Lambert's Landing. City crews built temporary dikes at Jackson and Sibley

Streets to keep flood waters out of the Post Office and other downtown areas.

By Peter Verstegen, Public Affairs specialist

Areas of the Minnesota River basin overflowed with water from three springs worth of rain in one.

Unseasonably heavy rains saturated the Mississippi River headwaters. Flash floods inundated the Black River in

Western Wisconsin. Torrential rains soaked the St. Croix River basin along the Minnesota-Wisconsin border. And then they all converged on the Mississippi River.

With water overhead and underfoot, officials in cities along rivers in Western Wisconsin and Minnesota

called for help. The team at the Emergency Operations Center (EOC) boosted their confidence with strong support. And where they were in place, the district's flood control projects worked to prevent over \$91 million in damages.



Photo by Dave Sitzer

Photos above and right show a closure structure at Henderson, Minnesota. On the other side of the wall, flood water rose just above Tom Heyerman's waist. Heyerman is a civil engineer with Engineering Management Branch.

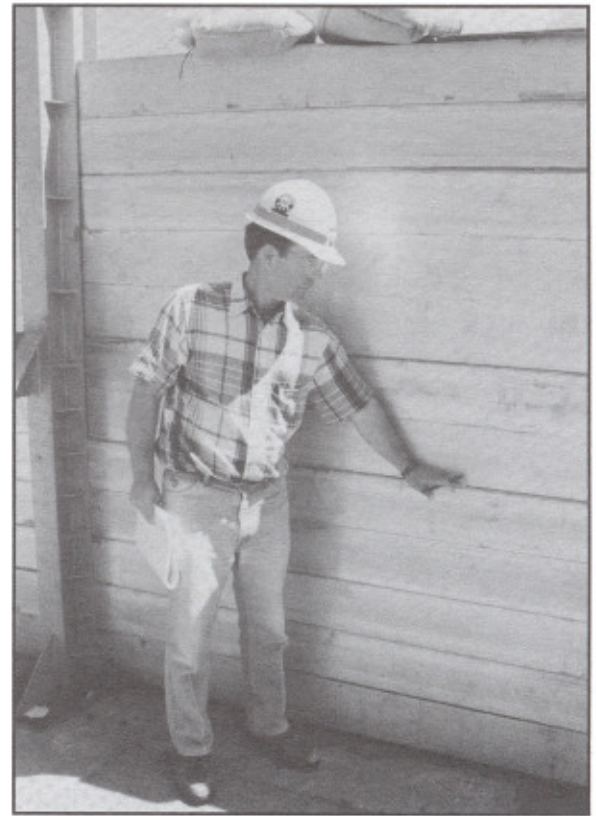


Photo by Dave Sitzer

Corps projects on the Minnesota River diverted flooding at Mankato and Henderson and abated damage along the Mississippi River at St. Paul, South St. Paul, Winona, Prairie du Chien, Wis. and Guttenberg, Iowa.

At Mankato, where the Minnesota River normally flows at 2,000 cubic feet per second (cfs), flood waters peaked at 75,000 cfs. The water rose to 30 feet at Mankato and topped the 1965 record by one-tenth foot. Completed in 1989 for \$102 million, the Mankato project prevented an estimated \$63 million in damages.

At Henderson, water reached its second highest elevation, six-tenths foot below the 1965 record. The \$2.3 million project at Henderson, completed 1990, averted about \$2.8 million in damages.

The Mississippi River crested June 26 at

19.2 feet at St. Paul, establishing the summer flood of record. (Some springtime floods have been higher. The spring 1969 level was 24.5 ft., and the spring flood of record in 1965 reached 26.0 ft.)

The average river flow for the month of June at Lock and Dam No. 2, just south of St. Paul, is 17,500 cfs. At the peak of the flood, the volume there quickened to 96,000 cfs.

Projects in the St. Paul area prevented an estimated \$5 million in damages.

At Chaska, where a flood control project is under construction, the Corps provided assistance to upgrade an emergency levee. The project's stage 1 and 2 drainage channels provided protection from tributary streams.

Emergency levees built during previous floods protected the Minnesota River

communities of Kasota and Carver, Minn.; Newport, Minn. and Marquette, Iowa on the Mississippi River; Afton, Minn. on the St. Croix River; and Rockford and Delano on the Crow River.

In July, more rainfall washed over the saturated landscape to create second river crests on the St. Croix, the Minnesota and the Mississippi Rivers.

On the Minnesota River just north of the western Minnesota community of Montevideo, record high water remained poised on the lip of the emergency spillway at the Corps' Lac Qui Parle Reservoir.

The district's EOC loaned 37 pumps for interior drainage to 15 communities and supplied 168,000 sandbags to three cities and to two counties — enough sandbags to build a dike one foot high and four miles long.



Photo by Ken Gardner

Projects along the Minnesota and Mississippi Rivers prevented an estimated \$91 million in damages. Above, District Engineer Col. Richard Craig, at left, Cong. Bruce Vento, center, and Chief of Engineering Division, Bob Post, tour the St. Paul Project during flooding in late June. Craig and Post briefed Vento on the St. Paul District's response to high water on the Mississippi River. The Mississippi River crested June 26 at 19.2 feet at St. Paul, establishing the summer flood of record.

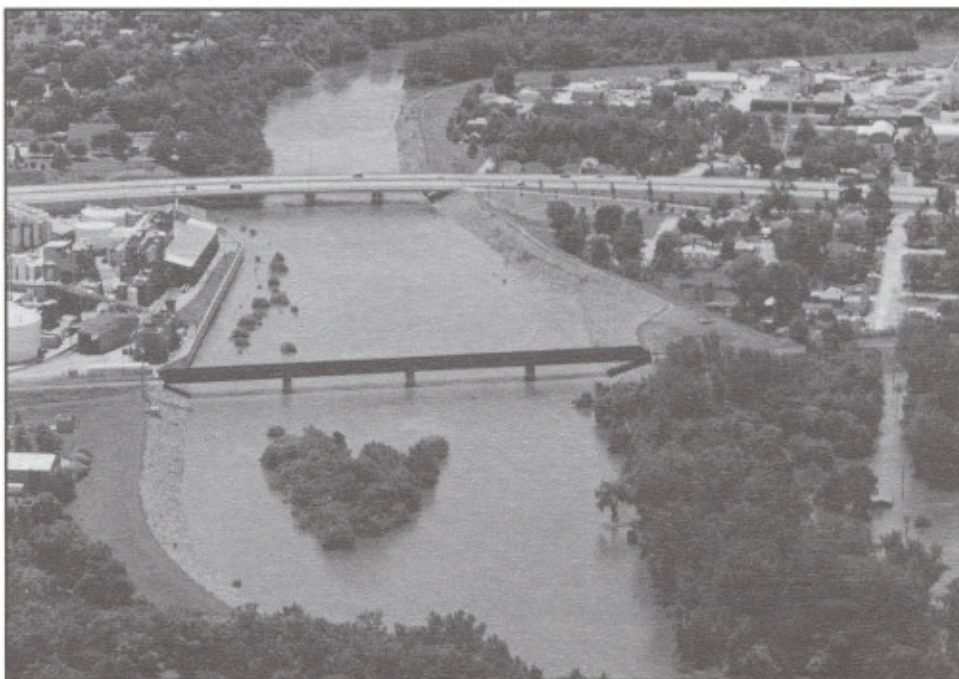


Photo by Mike Leshner

To deal with the emergency, the St. Paul District obligated over \$205,000 and had 171 people work emergency flood duty.

Flood engineers from the district frequently met with community officials to provide technical assistance to operate projects, monitor emergency levees, establish pump requirements, and prepare for potential problems. Geotechnical specialists and hydraulic engineers also assisted local officials.

On the Mississippi River, high water temporarily closed locks 3, 8, 9 and 10. Lock personnel removed electrical and mechanical equipment as a precaution against high water.

At the height of the flooding on the Upper Mississippi River, the U.S. Coast Guard maintained its declaration of a no-wake zone from Minneapolis to Prairie du Chien, Wis., and closed the river to traffic south of Prairie du Chien. The district reopened the last closed lock, Lock 10 at Guttenberg, when water there receded during the Independence Day weekend.

The district's EOC continued to coordinate disaster relief with the Federal Emergency Management Agency and local officials in Minnesota, Wisconsin, and Iowa.

This aerial photo at left shows the Blue Earth River portion of Corps of Engineer's Mankato project. The project channels water around and through the City of Mankato. At Mankato, where the Minnesota River normally flows an average 2,000 cubic feet per second (cfs), flood waters peaked at 75,000 cfs. The water rose to 30 feet and topped the 1965 record by one-tenth foot. Completed in 1989 for \$102 million, the Mankato project prevented an estimated \$63 million in damages.

District office and crew from the Dredge Thompson send support for flood fight on Mississippi



Photo by Ken Gardner

Record high waters on the Mississippi forced the Dredge Thompson to tie up across from Hannibal, Mo. when flooding occurred in July. Tom Fisher (above) from the dredge is pictured near Hannibal with a temporary river gauge in the background. Fisher and other crew members provided emergency hourly river-stage readings of the Mississippi River. In addition, crew members Jay Arnold, Gerald Fielder and Gene Nesler operated bulldozers to fortify levees.

Ken Gardner, chief of Public Affairs for the St. Paul District, operated a Corps of Engineers media center in Quincy in mid-July. Gardner is shown at right on the levee at Hannibal during an interview with a camera operator and reporter from a Columbus, Ohio television station.

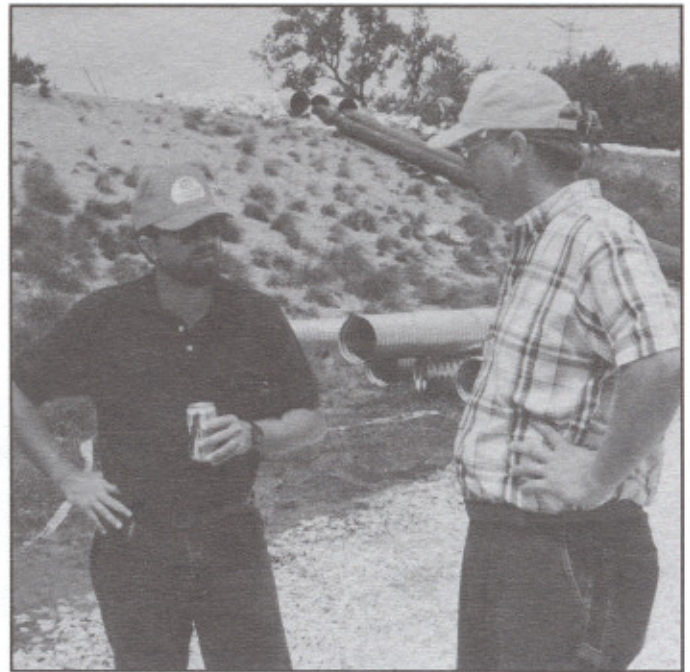


Photo by Ken Gardner

Paul Madison (above left), a geotechnical engineer with the St. Paul District talks with an Adams County, Illinois, emergency services official at the South Quincy Levee in July. Madison was among fourteen people from the district who provided support for others during flooding along the Mississippi River. They include Mark Miller, Ken Gardner, Mike Wright, Loren Nishek, Craig Hinton, Joe Lechner, Robert Halverson, and Brian Peterson. Also, Jim Murphy, Lew Riggins, Mike Dahlquist, Dale Gorr and Todd Howard supported flood recovery efforts for the Federal Emergency Management Agency in Wisconsin.



Col. Scott named new District Engineer for St. Paul

A North Dakota native who has a residence in Dent, Minnesota will assume command of the district in a change of command ceremony at 11 a.m. on August 6 in the Great Hall of the First Trust Building, 180 E. Fifth St. in St. Paul.

Col. James T. Scott will assume command from Col. Richard W. Craig, who is being reassigned to North Central Division in Chicago as division commander.

Scott served as a captain and project engineer in the St. Paul District from January 1980 to July 1982. At the end of his tour, he listed the successful completion of stage one of the Lock and Dam No. 1 project as his most important accomplishment.

Scott comes to the St. Paul District from a year of studying the resource component of national power at the National Defense University in Washington, D.C. Prior to his school assignment, he served as staff engineer with the Panama Canal Treaty Implementation Agency, Washington, D.C.

Scott received his bachelors degree in civil engineering from North Dakota State University and his masters degree in civil engineering from the University of Illinois. He is also a graduate of the Army Command and Staff College and the National Defense University.

His previous assignments include commander, Charleston District, South Carolina; director of engineering, Camp Zama, Japan; executive officer, 46th Engineer Battalion, Fort Rucker, Alabama; commander and staff officer, 94th Engineer Battalion, Darmstadt, Germany; platoon leader and staff



File photo

Col. James T. Scott

officer, 14th Engineer Battalion, Fort Ord, California.

His military awards include the Legion of Merit (two awards); Meritorious Service Medal (three awards); and the Army Commendation Medal (two awards).

Scott is a native of Fargo. His wife is the former Charlene Sauvageau also from Fargo. They have three children: James Jr., Mark and Megan.

The Scott family has called Dent home ever since they built a cabin on a lake near there in 1989. Dent is a village between Detroit Lakes and Fergus Falls.

Scott is a registered professional engineer in the State of Illinois and a member of the Society of American Military Engineers (SAME) and the Association of the United States Army.

Chief of Engineers returns to St. Paul for change of command

Lt. General Arthur E. Williams, the Army's 48th Chief of Engineers, will officiate the district's change of command on August 6 in St. Paul.

Williams, a registered professional engineer in the State of Minnesota, was the St. Paul deputy district commander from July 1970 to June 1972,

During his tour in the St. Paul District, Williams oversaw a number of flood control projects, including Big Stone Lake-Whetstone River; the levee at Guttenberg, Iowa; the La Farge project; Mankato and North Mankato; channel improvements at Minot, North Dakota; projects at St. Paul and South St. Paul; and at Winona.

Prior to being named Chief of Engineers, Williams served as Director of Civil Works in the Headquarters, U.S. Army Corps of Engineers through July 1991. As director of Civil Works, he was responsible for planning and administration of the Corps' \$3 billion annual civil works program, which includes planning, construction and maintenance of Army civil works projects throughout the nation; environmental regulation, protection and enhancement; emergency response and other missions.

Williams also has served as the commanding general and division engineer for the Corps' Lower Mississippi Valley Division and President of the Mississippi River Commission.

The Chief of Engineers occupies a unique position as a senior member of

Williams, continued on next page

Williams, continued from previous page



File photo

Lt. General Arthur E. Williams

the Army staff and as a commander of a major Army command. In his Army staff role, he helps determine the training, tactics, equipment and deployment of about 150,000 active, reserve and National Guard engineer soldiers. He is also spokesperson for the directors of Engineering and Housing at Army installations and the Army's senior advisor on engineering and projects, ranging from topography to environmental stewardship and restoration.

As a major commander, Williams directs an organization of more than 900 military and 38,000 civilian members with an annual program exceeding \$9 billion. Major missions of the Corps of Engineers include military facilities construction for the Army and Air Force; environmental restoration of current and former defense installations; and the Army's civil works program.

Col. Craig ends challenging tour as District Commander

Col. Richard W. Craig completes a challenging tour of duty in the St. Paul District on August 6.

His two-year command of the St. Paul District included successful execution of the Corps' primary flood control mission during record and near-record setting high water

He also oversaw a major relocation of the St. Paul District headquarters from the Post Office building to the renovated Army Corps of Engineers Centre at 190 E. Fifth St. in St. Paul.

Craig came to St. Paul from an assignment as chief of the Operational Testing Division, Force Deployment Directorate, Office of the Deputy Chief of Staff for Operations and Plans, Headquarters, Department of the Army in the Pentagon.

Craig is a 1968 graduate of Maryville College in Tennessee with a bachelor of arts degree in history. He also received a masters of science degree in political science (public administration) from Western Kentucky University. He is a graduate of the Engineers Officers Candidate School, the Infantry Officers Advance Course, the Army Command and General Staff College, and the National War College.

His major command assignments include serving as the company commander, 72nd Combat Engineer Company, 197th Infantry Brigade, Fort Benning Georgia; company commander 567th Atomic Demolitions Munitions Company, 130th Engineer Brigade, Hanau, Germany; and commander of the Fifth Combat Engineer Battalion, Fort Leonard Wood, Missouri.

Craig's staff assignments include



File photo

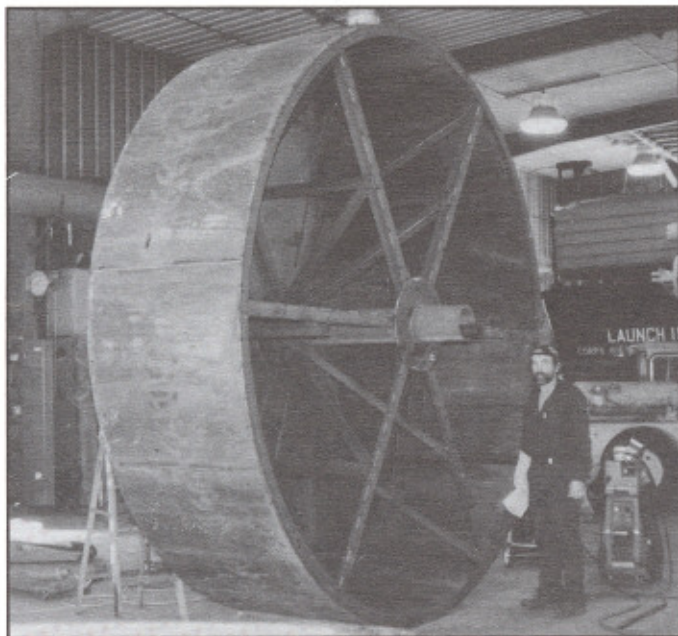
Col. Richard W. Craig

serving as the senior engineer instructor in the U.S. Army Armor School, Fort Knox, Kentucky; Operations Officer, 19th Combat Engineer Battalion, Fort Knox; assistant professor of Military Science, Auburn, University, Auburn, Alabama and engineer branch chief, Combat Maneuver Division, Office of the Deputy Chief of Staff for Operations and Plans, in the Pentagon.

A farewell luncheon was held in his honor on August 4.

Craig's next assignment is to take over North Central Division (NCD) in Chicago on August 13, where he officially assumes his new command on August 20.

Of men and buoys at the Fountain City Boatyard



St. Paul District Photo

Mike Scheel (above) and Gary Hazelton (not pictured) often work together at the Fountain City, Wis. boatyard where they make anchor buoys. Tow boats tie up to these buoys while waiting in line to lock through. Each floating buoy takes about two weeks to make. They are three and one-half feet deep and 12 feet in diameter. Scheel and Hazelton pour six inches of concrete in the bottom, and later fill the buoy with foam for buoyancy, paint it white with a blue stripe and attach an 8,000-pound anchor.

Rain delays annual awards picnic to June 25



St. Paul District Photo

The "High Flyers" and other St. Paul District employees had their day in the sun—a week later than scheduled. Record rainfall, high water in the Eau Galle reservoir and soggy ground at the recreation area in Spring Valley, Wis., delayed this year's Engineer Awards Day and Picnic until June 25. Altogether, 461 attended the event, originally scheduled for June 18. The High Flyers won their second consecutive volleyball championship. Left to right are Ron Hobson, Chris Kochevar, April Pream, Mason LaFavor and Chris Hildrum.



**US Army Corps
of Engineers**

St. Paul District

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Crosscurrents

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Obituary

Marjorie M. Johnson of Maplewood died July 3, 1993. She retired as a secretary in the St. Paul District in 1984. Her 20 years of public service also included work at the U.S. Department of Agriculture and Immigration and Naturalization Service.

Surviving her are Ernest Johnson, her husband; Kathy, her daughter; two sons, Robert and Tom; and one sister, Marilyn Munger.