



# CONSTELLATION

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U.S. Army Corps of Engineers, Baltimore District

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## Capital projects move forward at WA

by Mary Beth Thompson  
Public Affairs Office

Taking water from the Potomac River and making it safe for a million people to drink is both simple and complex.

It is a simple set of processes: extract it, clean it, and send it to the water distributors.

The complexity derives from the chemical and engineering procedures that need to be applied to the processes and the substantial infrastructure required to achieve the basic goals.

At the Washington Aqueduct, the Corps' unique public utility that provides water to the District of Columbia, Arlington County and Falls Church, Va., capital projects to maintain and improve the many facets of the process are under way.

"The work will enhance the treatment process, change the system to meet new regulations and keep the existing facilities in good working order," said Tom Jacobus, chief of Washington Aqueduct Division.

"It's a major investment in providing the best possible product to our customers."

The capital projects under construction, in design or recently completed are:

- Dalecarlia Water Treatment Plant East Filter Building repairs;

- Chloramine facilities for both the Dalecarlia and McMillan Water Treatment Plants;

- Roadway repairs at the McMillan plant;

- Filter renovations at the Dalecarlia plant;

- Backwash Pumping Station modifications and waste stream improvements;

- South Connection Building renovation;

- Raw water conduit rehabilitation;

- Little Falls Pumping Station motor rewinds;

- Dalecarlia plant pumping station improvements;

- Interconnection No. 3 improvements.

A special borrowing authority granted to the Aqueduct of \$75 million made many of these capital projects possible.

The project that allows the introduction of chloramine to the water disinfection process brings the most public interest.

The Aqueduct meets all current standards by adding chlorine to the water, but the Environmental Protection Agency's new Disinfectant and Disinfection By-Product Rule will require a modification in the process to reduce the quantity of disinfection

*(Continued on p. 3)*



Erik Tesnau washes a filter in the east filter building at the Dalecarlia plant.



U.S. Army Corps  
of Engineers  
Baltimore District

[http://  
www.nab.usace.army.mil](http://www.nab.usace.army.mil)

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District Engineer  
Col. Bruce A.  
Berwick

Public Affairs Chief  
Lucy Lather



## From the Commander

by Col. Bruce Berwick  
Commander & District Engineer

It's hard for me to believe, but my time at the helm of the Baltimore District will end later this month. The past three years in Baltimore have been the most challenging, fast-paced and rewarding of my military career.

As I reflect on these years, I am impressed by what you've accomplished, and by what Baltimore District means to the millions of people of the mid-Atlantic region.

In terms of dollars, your work is valued at \$2.1 billion. This includes the completion of major projects such as the Walter Reed Army Institute of Research, the Army Research Labs at Adelphi and Aberdeen, the Korean War Memorial, and Drake Chemical, to name a few.

Work is ongoing in the Baltimore Harbor, Wyoming Valley, Poplar Island and the D.C. Schools. Countless other projects have improved.

As I've said many times, we cannot rest on our laurels. There is still much to be done. We know our business and must continue to execute it flawlessly. The lives of soldiers, airmen and citizens have been affected by your work. You have put your stamp on the face of America!

Projects designed and completed and work accomplished are only a small part of the story. Of what I am most proud,

and that which I know will continue, is your commitment to the values of the Army and the U.S. Army Corps of Engineers.

Your dedication to service and devotion to duty is renowned. Your integrity is above approach. Your determination in the face of adversity is inspirational. Every day you do the right thing. If you make a mistake, you own up to it, and more.

These values are central to the Baltimore District and the U.S. Army Corps of Engineers. It is because of these values that the people of our region hold you in high regard. You must protect them, and I know you will.

I am very proud to have had the opportunity to serve with you. Together, we've shared many successes, and yes, a few disappointments. But through it all, your positive attitude and determination to get the job done right, regardless of the challenge, were nothing short of remarkable. For that, I thank you.

Col. Charles Fiala will be your new commander on July 28. I know you will give him the same support and trust that you've so graciously provided me.

On behalf of my wife, Willie, and my daughters, Kelly and Katherine, we thank you for all your support, friendship and hard work.

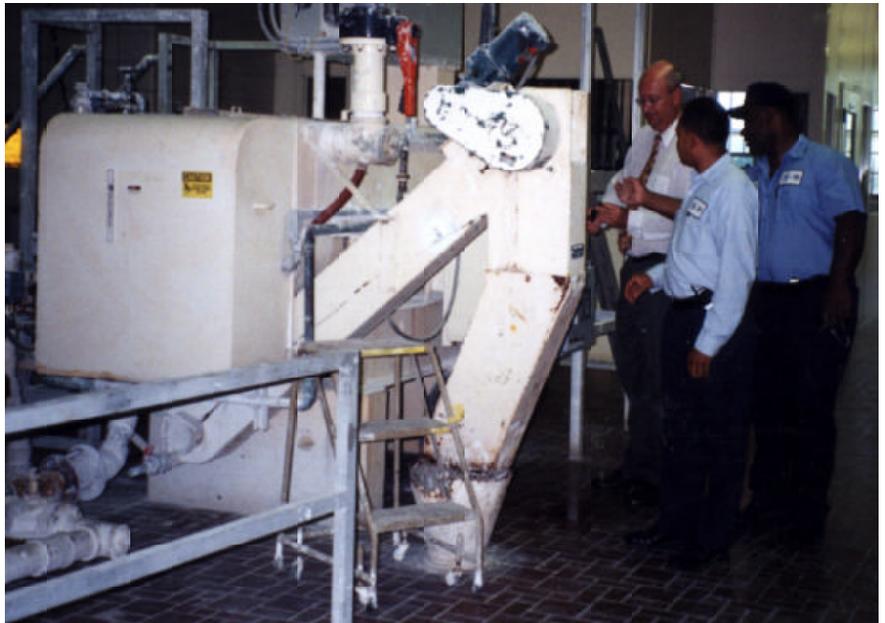
Best wishes to each of you.  
Essayons!

# Aqueduct improvements move plant into 21st century (Continued from p.1)

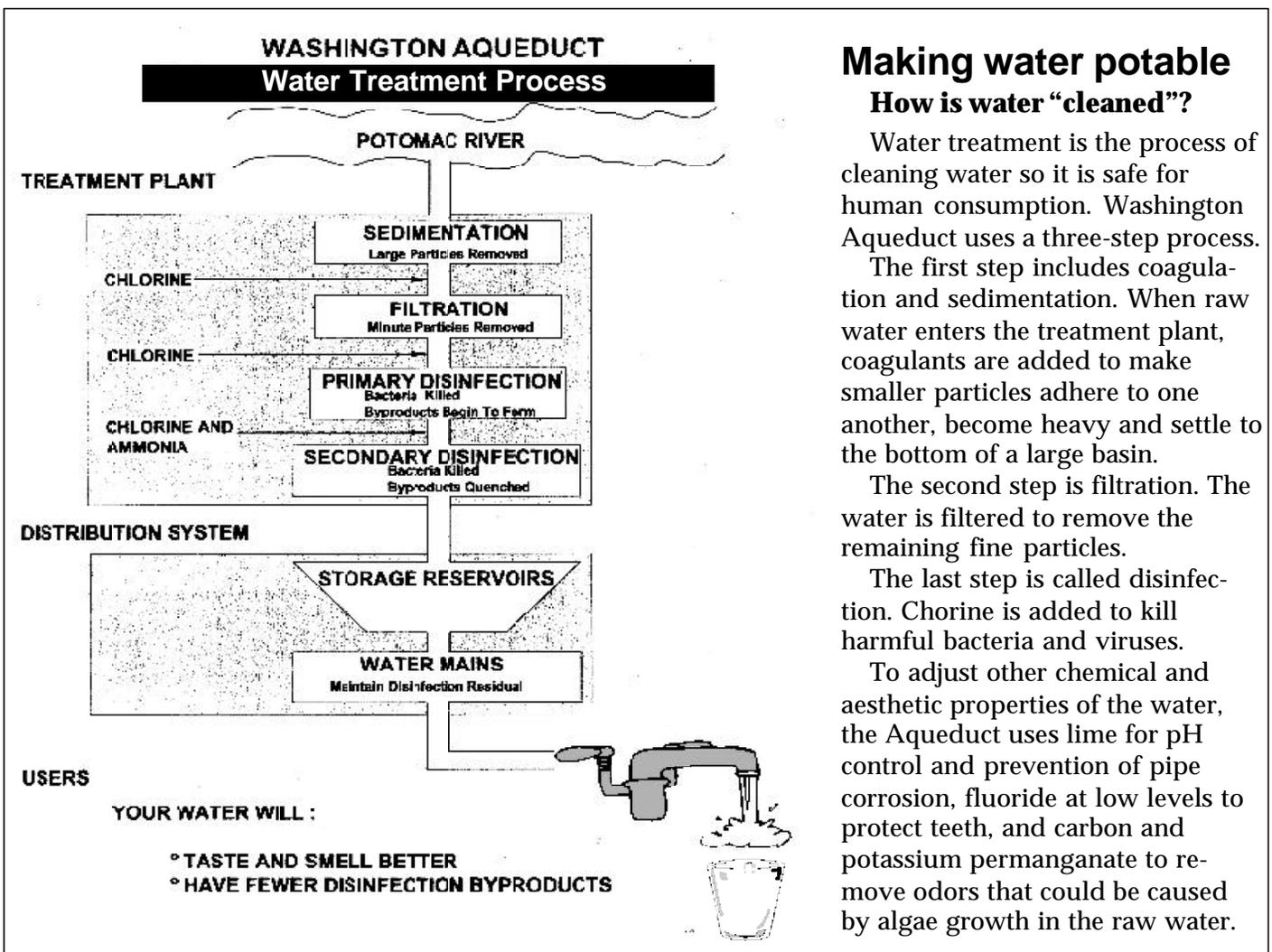
by-products produced. The chloramine system will accomplish that and will be operational this November, in advance of the 2001 effective date of the new rule.

About 150 years ago, Congress gave the Corps of Engineers the mission to develop a water system for the nation's capital. The Corps built the Washington Aqueduct, a notable engineering achievement of its time.

The system has since been expanded to include northern Virginia communities. It is managed by the Baltimore District and regulated by EPA Region III. Funding for operations, maintenance and capital improvements comes from revenue generated by the sale of water.



Woody Peterson (l), WA plant superintendent, and his foreman and another employee make adjustments on the lime slaker at the Dalecarlia plant.



## Making water potable How is water “cleaned”?

Water treatment is the process of cleaning water so it is safe for human consumption. Washington Aqueduct uses a three-step process.

The first step includes coagulation and sedimentation. When raw water enters the treatment plant, coagulants are added to make smaller particles adhere to one another, become heavy and settle to the bottom of a large basin.

The second step is filtration. The water is filtered to remove the remaining fine particles.

The last step is called disinfection. Chlorine is added to kill harmful bacteria and viruses.

To adjust other chemical and aesthetic properties of the water, the Aqueduct uses lime for pH control and prevention of pipe corrosion, fluoride at low levels to protect teeth, and carbon and potassium permanganate to remove odors that could be caused by algae growth in the raw water.

# Marine Corps taught him: treat people with respect

by Mike Pollis  
Public Affairs Office

After spending six years learning discipline in the Marine Corps, Jason Cochran of the Information Management Office has had no problem applying those lessons with people in Baltimore District.

It is his friendly, helpful interaction with co-workers that has earned Cochran the July Courtesy Employee of the Month award.

"The Marines definitely taught me the proper way to treat people. If you treat

them with respect, they'll treat you with respect," said Cochran.

During his tenure in the Marines, Jason worked in the telecommunications center. Now in his third year with the Corps, Cochran is a telecommunications specialist.

His work involves primarily setting up and fixing hardware, setting up routers and dealing with video telecommunications. In many instances, Cochran must resolve network problems

with the District's video conferencing equipment and its connection to other sites, often times finding solutions that impact hundreds of people.

"In the face of these sometimes tense situations, Jason is

able to maintain a healthy calm outlook, a pleasant disposition and a can-do attitude," said Rudy Walter, chief of the Information Management Office.

Cochran's courteous attitude is simple: he enjoys coming to work each day.

"The people in this office are great," said Cochran.

"And, since you have to go to work anyway, you might as well be happy and enjoy it."

Married, with a two-year old daughter, Cochran enjoys spending time with his family and playing sports, such as softball and golf, when he's not at work.

"I could spend every minute with my daughter and be the happiest man alive," said Cochran with a smile.



Jason Cochran

## Caught on the Web

Summer usually brings plans to pack up the family car for a vacation. The Internet can help as you design your road trip.

Several websites offer free maps, directions and customized travel routes. Try [www.mapsonus.com](http://www.mapsonus.com), [www.mapblast.com](http://www.mapblast.com), [www.maps.expedia.com](http://www.maps.expedia.com), [www.freetrip.com](http://www.freetrip.com) and [www.mapquest.com](http://www.mapquest.com).

The Federal Highway Administration's website *National Scenic Byways Online* provides travelers with current, detailed information about scenic byways throughout the United States. Find it at [www.byways.org](http://www.byways.org).

The FHWA also sponsors the *National Traffic and Road Closure Information* website at [www.fhwa.dot.gov/trafficinfo/index.htm](http://www.fhwa.dot.gov/trafficinfo/index.htm). It offers links to other sites that provide information on traffic conditions, construction and weather that affect travel in the United States.

Looking for a little whimsy on your trip? Consult *Roadside America*, an online guide to offbeat attractions. Key in [www.roadsideamerica.com](http://www.roadsideamerica.com).



# Employee finds link to proud past

by Mike Pollis  
Public Affairs Office

Ken Baumgardt of Planning Division recently learned that his family's involvement in achieving the Army mission goes back a lot further than his hard work with the Corps of Engineers.

Coming across three Civil War medals, one of which was a Congressional Medal of Honor, that belonged to a relative, Col. Michael C. Murphy, Baumgardt discovered a proud link to his family's past.

An orphan from the Irish Potato Famine, Murphy came to America and enlisted with Col. Ellsworth's 170th New York, the Fire Zouaves, at the beginning of the war.

He fought with them the first two years of the war, but following the carnage at Bull Run, in which there were an estimated 4,700 casualties, resigned from the Army.

He soon reenlisted with Corcoran's Irish Brigade, the 11th New York Infantry.

Murphy reached the height of his military career and

earned a Medal of Honor while leading the Union Army into battle in North Anna, Va., on May 24, 1864.

While engaged in battle this day, Murphy kept his troops in the field exposed to enemy fire for over three hours without being able to fire one shot in return because their ammunition was exhausted.

Unfortunately, the following week, Murphy's fortunes would drastically change for the worse.

Involved in the battle of Cold Harbor, where more than 3,000 Union soldiers were massacred, Murphy made a decision that would cost him his position in the Army. On June 3, 1864, because of his 105 wounded men, Murphy entered a flag of truce without authority and was court martialled the following day by Gen. George G. Meade.

Gen. Ulysses S. Grant, knowing of Murphy's actions at North Anna, petitioned President Lincoln on his behalf. Lincoln rescinded the court martial, and Murphy was honorably discharged from the Army with the rank of colonel.

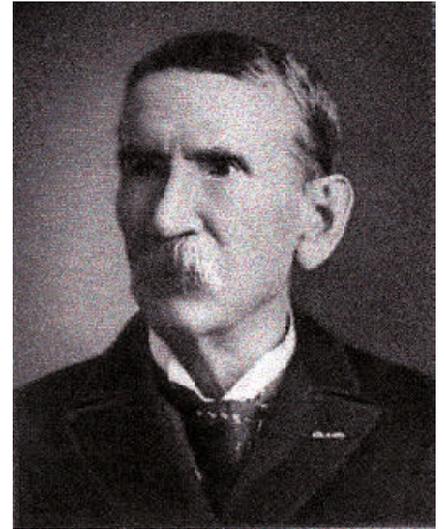


Photo courtesy, Internet  
Colonel Michael C. Murphy



Photo by Tex Jobe  
Col. Michael Murphy's medals for his heroics during the Civil War battle at North Anna, N.Y., in which he and his troops stood their ground for over three hours with no ammunition. The Medal of Honor is the one in the middle.



Photo from The Washington Aqueduct, 1852-1992

## Baltimore District history quiz

Select the caption that correctly describes this photograph.

- Gen. George Washington stands on his boat preparing to cross the Delaware River on Dec. 8, 1776.
- Attendees at Baltimore District's first Organization Day Picnic pose for the camera; attendance was slim, but spirits were high.
- Smokers gather outside the Fallon Federal Building circa 1919 just after smoking was made illegal in government buildings.
- M.C. Meigs, U.S. Army Corps of Engineers, who was responsible for the design and construction of the Washington Aqueduct, stands on a fountain near the Capitol as a water jet rises in the air Jan. 3, 1859, the first day that water was introduced into the mains of the newly built system.

Need a lifeline? Call Public Affairs, 410-962-4088.

## Baltimore employees, families celebrate Organization Day

District employees took a break from their everyday chores to enjoy the festivities at the 10th annual Organization Day Picnic on Friday, June 16.

Good weather and Blob's Park facilities proved to be the right combination for this year's activities, which featured sack races for all ages, balloon and egg races and a variety of children's activities. Even Safety Squirrel made a guest appearance.

As in the past, softball and volleyball were favored sports. Engineering Division was the big

winner this year, capturing both the softball and volleyball tournaments.

Others tested their skill at golf in the pitch and putt "closest to the pin" competition. This year, Douglas O'Neill, son of Claire O'Neill of Programs and Project Management Division, took home the first place prize of \$75.

Patty Flack, friend of Raymond Schweiger, Real Estate Division, won the 50/50 raffle.

"I would like to thank all those who worked to make the picnic a success," said Jim Bemis, Office of Counsel and chairman of this year's picnic. "An undertaking of this magnitude takes the entire District working throughout the year."

Office of Counsel arranged many events during the year to help defray the individual ticket price.



Organization Day photos by Tex Jobe and Susanne Bledsoe

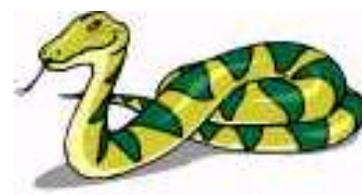


**Fun and games for all** — District employees, family members, friends, and even Safety Squirrel participate in the day's activities at the annual organization day picnic. Sack races for young and old, balloon and egg races, as well as softball and other sports events, kept everyone occupied.





# Gaining a Snake Sense



A person not liked is sometimes called a “snake.” A person who stabs others in the back is called “a snake in the grass.”

Westerners see snakes as evil, and that seems to color thinking about the reptiles. However, snakes are hardly hiding out, waiting to pounce on us.

For most, there’s the temptation to act like a certain “B.C.” comic strip character and start whomping them. But snakes, especially poisonous snakes in the United States, are generally shy and are generally as scared of you as you are of them. Most of the time, snakes will move to avoid you.

In 1989, the most recent year for snakebite statistics worldwide, there were 300,000 reported snakebites. They resulted in 30,000 deaths — 20,000 in India, said Bela Demeter, a biologist with the Department of Herpetology at the Smithsonian Institution’s National Zoological Park in Washington, D.C.

In the United States, 7,000 venomous snakebites are reported annually, resulting in only 15 fatalities, however.

Males ages 15 to 30 suffer the most venomous snakebites, and most of them occur on the arms from the hand to elbow after the person has handled the snake.

Even if a poisonous snake bites you, you have a 50-50 chance that no venom was injected. Rattlesnakes, cottonmouths and copperheads are pit vipers and are the most com-

- Do not play with snakes.
- Keep landscape well manicured.
- Wear shoes around the house.
- Wear gloves when weeding.
- Wear boots in snake country.
- Develop the habit of watching where you step and where you place your hands.

mon poisonous snakes in America. They only inject venom when they are striking to eat something.

“They are not going to eat something the size of a human, so 40 to 50 percent of the time these are dry bites,” said Demeter. He added that snake strikes against humans are generally defensive.

“If you’re bitten, you would know pretty quickly whether poison was injected or not,” he said.

Pit vipers inject poison through two fangs. Generally, a bite would create two puncture wounds. If the snake injected venom, the victim will feel intense, burning pain and swelling around the holes. The species and size of the snake has a lot to do with how dangerous its poison is.

“The Mojave rattlesnake has a really bad venom,” Demeter said. “And for pure size, the six-foot Eastern diamondback (rattlesnake) has a massive bite. But you really never know how much is injected

because it runs the spectrum from no venom to a lot.”

People should remember not to panic. What people need to do is to receive treatment as soon as possible after being bitten, Demeter said. Treatment for a snakebite has changed over the years. Accepted practice no longer involves making X-cuts at or above the fang marks and sucking the poison out with your mouth.

“It’s best not to do a whole lot,” Demeter said. The most commonly recommended treatment today is to keep the bite area immobilized below the level of the heart.

Kane said medics can place a light constricting band between the bite and the heart. “The problem is that many people get carried away,” Kane said. “That band turns into a tourniquet. You don’t want to do that.”

Remove any jewelry the person may be wearing. Swelling from the snakebite can progress rapidly, so rings, watches and bracelets can turn into a real problem.

Get the victim to a hospital as quickly as possible. Antivenom serum is the only sure cure, and because some people are allergic to horse serum it should only be given in a fully equipped medical facility.

Don’t use ice to slow the spread of the venom. Researchers have found freezing of the stricken limb is a major factor leading to amputation.

# Speaking science

## New book offers wide array of engineering epiphanies

by Mike Pollis  
Public Affairs Office

A small venture originally planned as nothing more than a joke has led to a major accomplishment for Jon Fripp of Engineering Division.

Along with his brother, Michael, and his sister-in-law, Deborah, Fripp put together a collection of notable quotes on science, engineering and the environment in a book entitled *Speaking of Science*.

For about the last 10 years, the three relatives have given talks about engineering and other aspects of science.

"People love quotes and anecdotes, especially if they are funny or entertaining," said Fripp.

"We wanted to maximize the entertainment value, and minimize the content value," he said of the book.

According to Fripp, the trio joked about putting together a collection and getting it published, but had no idea that a publisher would take them seriously.

"My brother sent out the quotes as nothing more than a joke, but then one publisher loved the idea and decided to go with it," Fripp said. "It was surprisingly easy to get published."

### Quotes from the book

*"Suburbia: where they tear down trees and then name streets after them."*

- Anonymous

*"Sometimes the road less traveled is less traveled for a reason."*

- Jerry Seinfeld

*"May your canal be filled with sand."*

- Ancient Babylonian curse

*"Irrigation of the land with seawater desalinated is ancient. It's called rain."*

- Michael McClary

*"Risk cannot be eliminated; therefore it must be managed."*

- Institution of Civil Engineers

*"Energy is eternal delight."*

- William Blake

*"There is just one thing I can promise you about the outer space program: your tax dollar will go farther."*

- Werhner Van Braun

*"Space isn't remote at all. It's only an hour's drive if your car could go upward."*

- Fred Hoyle

Offering over 1,500 quotes from Aristotle to Al Gore, from Einstein to Homer Simpson, *Speaking of Science* gives those interested in engineering, science or technology both an entertaining read and an essential resource.

Fripp, who graduated from Virginia Tech, has spent nine years with the Corps and specializes in hydraulic engineering.

"I pretty much became involved in engineering because I love to build stuff," said Fripp, who demonstrates his love for engineering with the enjoyment he got from putting this book together.

"Being an author and editor is a lot like being an actor because 99 percent of the people don't make the big bucks. This was solely done for fun, and we'll be happy if we make enough money to treat our family to dinner," said Fripp with a laugh.

The book can be purchased on the web at [www.Amazon.com](http://www.Amazon.com) and [www.LLH-Publishing.com](http://www.LLH-Publishing.com) or at local book stores, such as Barnes and Noble. Those interested can also purchase the Fripps' book with a credit card by calling (800) 247-6553.



Colonel Bruce A. Berwick  
departing Commander and District Engineer  
and

Colonel Charles J. Fiala, Jr.  
incoming Commander and District Engineer  
request the honor of your presence at the

U.S. Army Corps of Engineers  
Baltimore District  
Change of Command Ceremony  
on Friday, July 28, 2000  
at 9 a.m.

Hyatt Regency Hotel  
Inner Harbor  
300 Light Street  
Baltimore, Maryland



### Baltimore's deputy district engineer for military construction retires from the Army

At an outdoor ceremony June 20 at Fort McHenry, Col. Bruce Berwick (l) presents Lt. Col. Patrick Guinnane with an American flag that flew over the fort for 22 minutes, signifying the 22 years Guinnane served in the Army. While assigned to the Baltimore District, last summer he led a team of soldiers and civilians from the District on a mission to build Camps Bondsteel and Monteith for the soldiers deployed in Kosovo.

## Absentee voting deadlines sooner than you might think

by Staff Sgt. Kathleen T. Rhem, USA  
American Forces Press Service

Nov. 7, Election Day, is less than five months away. That may seem like a long time, but voting officials recommend absentee voters request ballots 45 days in advance, even further in advance if they haven't yet registered to vote in their home district. Hmm ... that window of opportunity is starting to narrow.

Officials with the Federal Voting Assistance Program have put a tremendous amount of information about absentee voting on the Internet at <http://www.fvap.ncr.gov>.

Some specific links Department of Defense voters may find helpful are below:

<http://www.fvap.ncr.gov/publications/howtoinfo.html>

This page consists of an electronic version of the useful pamphlet, *How To Do It — Vote Absentee*. The pamphlet answers such questions as: Can I vote absentee? How do I apply for an absentee ballot? When is the best time to apply?

An online version of the Federal Post Card Application can be found at:

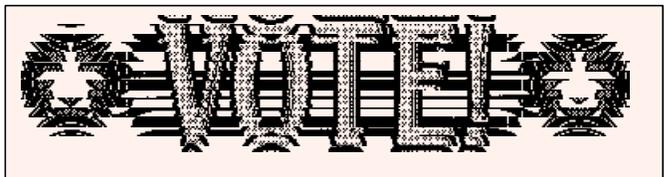
<http://www.fvap.ncr.gov/othertools/onlinefpga.htm>

This recent addition to the site was added to make voting easier for those without immediate access to a voting assistance office. The only downside to using this version is that individuals must pay their own postage. The printed, card-stock version can be sent postage-free.

Toll-free voting assistance numbers in foreign countries can be found at:

<http://www.fvap.ncr.gov/tollfree2000.htm>

This page includes toll-free phone numbers to the Federal Voting Assistance Program from nearly 60 different countries. DoD voters can also transfer to the DoD Voting Information Center, which, in turn, can transfer individuals to the office of their elected officials in the U.S. Congress, and their state governors and chief election officials.



## Declaration signers pledged all for freedom

America's founding fathers faced a dangerous future when they signed the Declaration of Independence in 1776. Before them was an explosive confrontation with one of the world's mightiest powers.

Eventually, some of the signers would lose their lives in the war of revolution. Others would suffer the loss of their families, their security, and their fortunes. But because they valued liberty above material things and personal safety, they pledged:

"For the support of this Declaration, with a firm reliance on the protection of the Di-

vine Providence, we mutually pledge to each other our lives, our fortunes and our sacred honor."

Few Americans are aware of the sacrifices they made. According to historians for the Veterans of Foreign Wars:

- Nine of the 56 signers fought and died from wounds in the war or shortly thereafter.
- Five signers were captured by the enemy as traitors and were tortured before they were killed.
- More than one lost a wife and mother of his children in the war.

## July 20: Moon Day marks historic event

Since the beginning of time, human beings have gazed at the heavens and wondered what it would be like to be up there in the sky on a heavenly body.

On July 20, 1969 astronauts Neil Armstrong and Edwin Ald-

- Two lost sons, and the sons of two others were captured.
- Twelve had their homes ransacked or burned.
- Several lost personal fortunes in the war and then died penniless.

According to VFW, signer John Hart was driven from his wife's bedside as she was dying. Their 13 children fled for their lives. His fields and his grist mill were burned.

Hart survived more than a year in the forest until the enemy retreated.

He returned to find his wife dead and his children vanished. He died

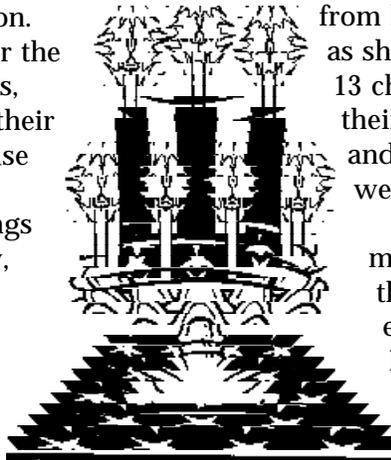
of exhaustion and a broken heart.

Quoting from a sermon delivered by the Rev. Frederick Trumbore, the VFW noted that the experiences of Declaration signers Philip Livingston and Lewis Morris of New York were tragically similar to those of Hart.

They were selfless, these lawyers, businessmen, and farmers. While the fate of every signer of the Declaration of Independence is not known, it is known that many paid a very dear price for the freedom that Americans today enjoy.

rin were the first to accomplish what people had only dreamed of.

Aided by fellow astronaut Michael Collins, they were the first human beings to walk on the moon.



## News you can use

### Retirement postponed

Lt. Gen. Joe N. Ballard, scheduled to leave the Corps June 9, has postponed his retirement indefinitely.

In his message to Corps employees, he said he felt he should stay on at the helm until the congressional investigation of the Corps was completed.

### August Constellation

The August Constellation will be devoted almost entirely to the change of command.

Because the ceremony will be July 28, you will not receive the newspaper until the first week in August.

### EAA events

**Christmas in New York** – Dec. 3-4, \$200/person. Bus transportation, motel, breakfast, ticket to Christmas show at Radio City Music Hall, 5th Avenue shopping. \$25/person deposit with reservation. Contact Angie Blizard, Room 7710-K or 410-962-4649 for tickets or reservations.

### Bond-a-Month Winners

#### January & February

Agnes Riedel - CT

Bill Kriner - EN

Ron Bowers - OP

Debbie Singer - CO

#### March & April

Greg Nielson - PPM

Mimi Bistany - PL

Mary Hollobaugh - RE

Lisa Ziomek - RMO



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Official Business

## ***George Kingsley's battle with cancer ends***

District Counsel George M. Kingsley succumbed June 12 to the cancer he had been fighting for a number of years. He held the post of counsel since June 1995.

Kingsley served as an attorney for the Corps for 24 years, including several years in Europe and the Middle

East. He also worked for the General Accounting Office, served as a U.S. magistrate and engaged in private practice during his distinguished legal career.

A native of Brooklyn, N.Y., Kingsley served in the Army from 1964 to 1968, first as an enlisted soldier and then as a

commissioned officer. He earned a bachelor's degree from Cornell University and a juris doctor degree from Duke University School of Law.

He is survived by his wife, Sally, and three children: George Matthew Jr., Stephen and Elizabeth. A memorial service was held June 16 in Ellicott City.