

US Army Corps of Engineers * Walla Walla District



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As I prepare this column, our military forces are engaged in battle. The war to liberate Iraq has just started.

Three of our own brave employees have voluntarily deployed to support our troops in two war zones, and a dozen more or so are preparing to deploy. All are volunteers. Another 20 have volunteered, but will not deploy at this time.

I get a lump in my throat thinking about their sacrifice and courage. We should all salute them. I have just returned to the office from getting a haircut downtown. Walla Walla has covered the city sidewalks in American flags, giving me yet again another lump in my throat. I think it is manly to exhibit such emotion, so I don't mind admitting it.

While the majority of us will not deploy for this war, that does not mean that we are any less engaged here at home. I have placed a high priority on security since I arrived. Our guards are now armed, and I've asked all of you to be vigilant in reporting suspicious incidents. We have had several serious reports, with the latest occurring on March 16 at Lucky Peak. In all the incidents, individuals or groups have been caught acting suspicious and taking photographs beyond what might be considered "touristy." One group was conducting a self-proclaimed "security vulnerability analysis." All of our incidents were reported to the FBI and local law enforcement.

Vigilance is the biggest role we can play here at home. The second biggest role is exercising proper OPSEC, or operational security. What is OPSEC? It is the practice of not giving out bits and pieces of seemingly harmless information that can be assembled into a puzzle that would give an aggressor an advantage.

George Washington was the first known American practitioner of OPSEC. He said "Even minutiae should have a place in our collection, for things of a seemingly trifling nature, when enjoined with others of a more serious cast, may lead to valuable conclusion."

What kind of small information could be accumulated into a harmful puzzle? The names of deployed employees; the location of their families; the number of employees at a dam; their work schedules; etc. Get the picture? If strangers ask you seemingly benign questions like this, you need to report it.

¹ I sincerely believe that the current conflict between good and evil, which started with all the terrorist attacks in the 1990s and reached a peak on September 11, 2001, should really cause us all to take a moment to think about just what is this concept of "freedom" that we all say we support and fight for.

How do we measure it? How do we conceptualize



it? I have several ways: First, when I drive to Milton-Freewater, or Lewiston, I don't go through checkpoints when I cross the state line; I don't have someone check and approve my papers; and I don't have someone search my car without a reason. That is freedom. Our constitution (which I carry a copy of everywhere I go) protects me from those infringements on my freedom.

Second, my son has just finished the college application process. He applied to several schools on different coasts, and is weighing his options visà-vis selecting a major. No one from the government is telling him which school to attend, or what he has to study. That is freedom. He can do what he wants within the limits of his abilities.

Third, I observed the supposed "peace rally" in Portland last week while visiting friends there. I say "supposed" since even the newspaper pointed out many (most?) of the people there were more party-goers than issue-oriented-protesters.

The great thing about watching the demonstration was that no police arrested the marchers, and no opposition party attacked them with guns blazing. They were free to do what they wanted, as long as they did it lawfully. I didn't agree with most of them, but it was great to see our constitution in action.

I had a huge smile on my face. That is freedom.

LTC Ed Kertis, District Commander

New Engineering Chief brings well-rounded background

The Corps often seeks wellrounded employees, with experience and background in many areas.

Michael J. Bart, recently installed as chief of Engineering Division February 2003 for the Walla Walla District, is no exception.

Bart started his career working with engineers of a different type, those that had their hand on a throttle of a 135,000-ton diesel engine. He came to the Corps in 1984, after working for the Union Pacific Railroad in the managementtraining program.

Although he enjoyed working for the railroad, the Corps was what Bart was more interested in — the opportunity to engineer large-scale projects.

Walla Walla District offered an opportunity to work with the environmental aspects of engineering. "This District has a great reputation and is immensely talented," said Bart.

As chief of engineering, he is responsible for all the design and engineering-related activities in the District. The workload averages \$20 million



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Michael Bart, chief of Engineering Division (Photo by Gina Schwetz)

annually in civil works projects in parts of six western states.

The work has a heavy emphasis on the environmental aspects of large, multipurpose hydroelectric projects, navigation projects, and multipurpose flood control projects, environmental restoration projects, fish hatcheries, bridges, fish and wildlife facilities, and maintenance work.

Bart also serves as the senior engineering advisor to the District commander and is the District Dam Safety Officer.

He is the career program manager for engineers and scientists (CP-18) and provides advice to interested employees in furthering their careers.

Bart received a bachelor's degree in civil engineering in 1984 from the University of Nebraska-Lincoln and is a registered Professional Engineer in Kansas. He is working toward completing his master's degree in civil engineering at the University of Kansas and is a member of the American Society of Civil Engineers He brings a

wealth of experience with him in water resource development projects. Prior to joining the District, Bart served as dual chief of Planning and Hydrologic Engineering branches in the Corps' Kansas City District. He also served as the acting deputy division

engineer for Northwestern Division.

During his years with the Kansas City District, Bart also served as chief of Plan Formulation Branch, chief of Planning Division, and a dual developmental assignment as assistant chief, Engineering Division, and acting chief, Hydrologic Engineering branch.

Bart has worked on pre- and post-authorization studies and projects for various water resources development purposes including flood damage reduction, streambank stabilization, navigation, environmental restoration, and water supply.

His awards include four commander's awards and recognition from several nonfederal sponsors and agencies.

FRONT COVER: Lester Maier, power plant shift operator at Ice Harbor Lock and Dam, goes over a list of work items to be completed by contractors installing new fish attraction water pumps on the north shore fish ladder. (Photo by Gina Schwetz)

District improves fish passage at Ice Harbor

Story and photos by Gina Schwetz

Fish passing over the ladders at Ice Harbor Lock and Dam will benefit from recent improvements, according to Walla Walla District construction division officials.

The challenge facing the District — to complete work projects intended to enhance fish passage conditions at the dam before the "fishfriendly" work window ran out.

"Our installation work window - the time period that would have the least impact on fish was only a few months long. We had to work fast," explained Cary Rahn, project manager for the recent fish-related projects at Ice Harbor. "The 40-year-old auxiliary water supply pumps were no longer meeting the compliance requirements of the National Oceanographic and Atmospheric Fisheries' biological opinion for the operation of the federal Columbia River power system. They had to be replaced."

McClure and Sons, Inc., won the contract to replace the three old pumps, and Knight Construction was selected to overhaul the pumps' butterfly valves and hydraulics.

The pump system creates an artificial current to attract fish to the ladder, essentially showing them where to go to get over the dam, said Rahn.

"This was a pretty complicated project – any time you do something that impacts an endangered species, it requires coordination with numerous environmental stakeholders," said Rahn.

"The other agencies were very cooperative with us to get this project done ahead of schedule. By coordinating with the regional agencies and our contractors, we were able to rearrange some delivery schedules and improve the construction sequence, reducing the originally projected construction period from four to two years. That's half as much time with the ladder out of operation, and that's definitely better for the fish."

Each new impeller-type, vertical pump is powered by a 450-horsepower motor and gearbox. Two of the pumps were placed and tested in February.

These new pumps have 50 percent more volume capacity," said Rahn.

"That means we can maintain the required water velocity using only two pumps. We can rotate pump use to reduce wear and tear, keeping a third as a backup pump, if needed," he said.

The third pump is in the process of being replaced and should be operational by May.



Two new impeller-type vertical pumps with 450horsepower motors were tested and put into operation in late February.



Jonathan Harrell, right, Construction Division co-op student, Scott Sutliff, left rear, Ice Harbor Lock and Dam operations manager, and Lester Maier, left front, power plant shift operator, inspects a new pump.



Lester Maier, power plant shift operator at Ice Harbor, and Butch Holt, McClure and Sons, Inc., project superintendent, assess how to proceed on adjustments to the new pumps.

Walla Walla District is always on the lookout for new talent to add to its employee ranks. Recruiting efforts take District professionals to colleges and universities throughout the region to promote the career opportunities available within the U.S. Army Corps of Engineers.

Jonathan Harrell, a Walla Walla Community College student, was lured to an on-the-job training position in Construction Division under the Corps' cooperative education program.

When he's not attending classes at WWCC, Harrell learns how to be a quality assurance representative by shadowing senior Q-A reps on various work contracts around the District.

"I like working for the Corps – it's interesting work and I'm learning something new almost every day," said Harrell. "The complexity of managing construction projects as a Q-A rep offers



Co-op student Jonathan Harrell, far right, and Frank Scopa, project engineer, inside right, plan how to conduct a test of the new auxiliary water supply pumps with project contractors.



Brannon Schneider, Knight Construction, Brian Collier, Johns Electric, Inc., Jonathan Harrell, and Dave Donner, Knight Construction, discuss how to adjust performance of the butterfly valves.

District mentors co-op students to become valued employees Walla Walla District is always on the lookout a variety to the job that I had never considered

before I started working here." Before his training is complete, Harrell will

learn how to ensure safety standards are met on job sites, facilitate cooperation between project managers and contractors, verify that job specifications are being met and complete the administrative requirements of the job.

By the time Harrell finishes school and co-op training, he should be qualified to fill a full-time permanent position as a Corps Q-A rep, said Construction Division Chief David Opboek.

"As a manager, I have to plan for the eventual retirement of my more experienced Q-A reps," said Opboek. "By training co-op students, we will be able to fill future vacancies as people retire with new talent that is already familiar with our District and how the Corps does business."

Removable Spillway Weir named best in U.S.

by Nola Conway

The Removable Spillway Weir at Lower Granite Lock and Dam on the lower Snake River in southeastern Washington, was recently named the nation's best engineering achievement by the American Council of Engineering Companies.

Kevin Crum, project manager, accepted the award on behalf of the Walla Walla District, U.S. Army Corps of Engineers, at a ceremony held March 18 in Washington, D.C.

Called an "engineering marvel" the RSW was submitted for the award by the contracting firm that designed it for the Corps — Jacobs Civil Inc., Bellevue, Wash. The project was chosen best engineering achievement over such projects as Seattle's new Seahawks Stadium, Boston's Downtown "Bunker Hill" Bridge and the Milwaukee Art Museum.

The RSW is a prototype designed to test passing juvenile fish over a spillway. At Corps dams on the lower Snake River, juvenile fish can pass three ways: over the spillway, in the juvenile fish bypass system and through the turbines. Juvenile fish tend to be surface oriented and surface flow is a more effective method to pass fish. The purpose of the RSW is to pass juvenile salmon and steelhead over a "raised" spillway crest, similar to a waterfall. Fish using the original spillbays passed through gates that are 50 feet below the surface in a pressurized and high velocity environment at the dam.

"The RSW offers an opportunity for juvenile fish to pass more quickly and efficiently at the dam. The flow required to pass juvenile fish may be significantly reduced, resulting in better passage conditions and lower dissolved gas levels in the river system," said Crum.

The RSW was developed in coordination with NOAA Fisheries and regional fisheries agencies. It was constructed at Vancouver, Wash., and shipped from Portland, Ore., up the Columbia River and installed at Lower Granite Dam in 2001. The structure weighs approximately two



Kevin Crum, project manager, right, and Tim Wik, project biologist, examine the RSW while it was operational during a test in 2002. (Photo by Nola Conway)

million pounds, and is 115 feet tall, 83 feet wide, and 61 feet deep in the upstream to downstream dimension.

The hinged structure is designed to be "removable" using water ballast systems to rotate it upstream and out of the spillway to the bottom of the reservoir. This allows the capability to return the spillway to original flow capacity during major flood events. The RSW can then be returned to operating position using air delivery systems after a major flood event.

Biological tests for the structure began in 2002 and continue through this year. Based on the first year's biological data, the RSW was much more efficient than conventional spillways, passing more fish while using less water, and reduced juvenile fish migration delays by offering a more attractive passage route past the dam.

More information is available on the District's Web site at <u>www.nww.usace.army.mil/rsw.</u>



The Removable Spillway Weir was constructed at Vancouver, Wash., moved up the Columbia-Snake River system, and was installed at Lower Granite Dam in 2001. (PAO file photo)

Caldwell fifth graders express their vision of Indian Creek

by Debbie Willis, Indian Creek Project Manager

While Walla Walla District staff members are developing a feasibility study to help the City of Caldwell, Idaho, improve the riparian habitat along Indian Creek as it runs through the town. Mayor Garret Nancolas is getting local fifth graders to look into the city's future and offer their visions and suggestions.

The creek is now covered over by pavement and buildings, and the city is interested in returning it to a more natural condition.

A public meeting has been held to get ideas and input from local citizens, but the mayor wanted to go an extra step and challenge the future adults of the community to define their visions through essays and drawings.

The children expressed interest in being able to fish, feed ducks, see birds, enjoy picnics with their families, have a greenbelt for walking and riding bikes.

"It is their future we are planning," Nancolas said.



Fifth grader Araseli Gomez drew the artwork above, depicting her vision of Indian Creek. Leaf DeFehr and Mark Moore collaborated on the drawing below, showing the water coming out of the mountain range, into the creek.



Working together

Lt. Col. Edward Kertis, District commander, signs a planning assistance agreement with the City of Walla Walla to develop a master plan for Fort Walla Walla Park at a ceremony held March 18. Mayor Jerry Cummins, center, waits to sign. Standing at far right is Jim Dumont, director of Walla Walla Parks and Recreation. The Corps will work with the city, park tenants and community members interested in developing a strategy for developing the 208acre park. (Photo by Nola Conwav)



Story and photos by Jeanne Newton, park ranger, Ice Harbor Dam

In 1803 the United States was still young. The country stretched from the Atlantic Ocean west to the Mississippi River. The Louisiana Purchase doubled the size of the country. President Thomas Jefferson sent an Army expedition out to explore the new land and put his secretary Meriwether Lewis in charge of it. Lewis chose his friend William Clark to assist him. These events happened 200 years ago.

The U.S. Army Corps of Engineers sponsored a Lewis and Clark Bicentennial Commemoration Kick-Off at the Washington, D.C., headquarters during Engineers Week, Feb. 18 -21.

The Corps searched across the country for the best interpreters to present programs at this event. Out of the ten they chose, two were from Walla Walla District; myself and Heather Burke, a park ranger at Dworshak Dam.

Unfortunately this special event

happened during one of the worse snowstorms that Washington, D.C., has seen in years.

I have come to the conclusion that Lewis and Clark and the Corps of Discovery had a pretty easy trip across country!

They did not have to deal with closed airports, delayed flights and waiting for the crews to spray de-icer on the plane. Washington, D.C., was shut down for two days.

It was a learning experience for all of us. Some of us were at Headquarters for the first time and many of the Corps employees who worked there never knew that the Corps had park rangers. Some of them thought we worked for the National Park Service.

Commander and Chief of Engineers Lt. Gen. Robert B. Flowers gave the opening remarks for the kick-off, dressed in a replica military uniform from 1803.

He portrayed Col. Jonathan Williams, Chief of Engineers at the time of the expedition. Flowers talked about the role of the Corps and the Army with the Lewis and Clark exploration, highlighting the seven Army values – loyalty, duty, respect, selfless service, honor, integrity and personal courage. He then tied it all in with the role of park rangers today. At the conclusion he presented each of us with a commander's coin.

During the Commemoration, 2003 – 2006, there will be signature events held throughout the country. Most of the territory Lewis and Clark traveled is part of the Corps and the members of our team will be heavily involved with these celebrations.

For more information, visit <u>www.lewisandclark200.gov</u>.



Commander and Chief of Engineers Lt. Gen. Robert B. Flowers dressed as an engineer did in 1803, talks to Corps park rangers about the significance of the Lewis and Clark journey.



Tim Bischoff, a park ranger at St. Louis District, dressed as a member of the Lewis and Clark expedition and manned a display at the Corps' headquarters building in Washington, D.C., as part of the kick-off ceremonies for the Lewis and Clark 200th anniversary commemoration.