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San Francisco District

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Ready for service

District commissions new command vessel



M/V John A. B. Dillard, Jr.

COMMANDER'S CORNER

"Thank you for your service and friendship"

By Lt. Col. Laurence M. Farrell
San Francisco District Commander

This is my last column as your Commander. It has been a great privilege to serve with you. Thank you for your professionalism, your service and your friendship.

During the past two years, I gained wisdom from working with you. During my 20 years in the Army, I gained wisdom from working with many outstanding people. Much of this wisdom can be expressed in four tenets.

First, always strive for excellence. We owe it to the people we serve with. We owe it to ourselves.

Second, we define ourselves, as a professional team that can rise to any challenge. This district will always dredge. Keeping our bays and harbors deep enough for commerce and safety is the heart of our mission. But the mission does not define who we are.

Third, diversity is important in our lives and in the workplace. And diversity has many meanings. It applies to ethnic heritage, culture, religion and gender. It also applies to skill set and mission set. In the workplace, diversity is truly the spice of life.

And fourth, try new things. Push the envelope. I am proud to say that in these two years, we did things that were new in the San Francisco District. These were not things we had to do. These were things we chose to do.

For example, just last month, we commissioned the state-of-the-art command



vessel the *Dillard* as the newest member of our district's debris-removal fleet. This boat can respond to emergencies almost three times faster than our other boats. She can lift large trees from the water. And she can allow the crew to see objects on the bottom of the bay.

We created the P2 Unit, a new section in our Programs and Project Management Division. The P2 Unit uses computer technology to schedule and to deliver our projects more efficiently.

We launched the *SPN Surveyor* magazine, which became an award-winning publication that features our people, projects and events.

All of these district accomplishments have one thing in common. They are

achievements by people who took an oath to the Constitution. The opportunity to take such an oath is not universal. People in some other countries take an oath to a person or a political party. Even in Britain, Prime Minister David Cameron took an oath to the Queen of England.

Looking ahead, I ask that you join me in welcoming incoming San Francisco District Commander LTC Torrey A. DiCiro, and his wife and children. LTC DiCiro comes to the district from serving as assistant Corps engineer for the North Atlantic Treaty Organization's Rapid Deployment Corps, based in Milan, Italy. He has outstanding professional credentials as well as prior USACE experience.

Our change of command takes place well into the summer season. We are fortunate to live so closely to so much summer recreation, including the Corps' own Lake Sonoma and Lake Mendocino. When you plan your family summer vacation, I encourage you to consider visiting these beautiful lakes.

As always, I ask you to be safe. I want you to have fun. Please remember to swim and boat with a buddy, and if you drink alcoholic beverages, drink moderately. And never drink and swim.

My next assignment is in Corps Headquarters as Executive Director to MG Jeffrey Dorko, Deputy Commanding General for Military and International Operations. If you are in the Washington, DC area, please stop by. I will still be reachable by e-mail and listed in the Global Directory.

District Commander

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SPN Surveyor

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On the cover

Jack Dillard III, middle, son of Maj. Gen. John A. B. Dillard, Jr., breaks the ceremonial bottle of champagne against the bow of San Francisco District's new multi-purpose vessel, named in honor of his father, who died while serving his country in Vietnam. Also pictured is Lt. Col. Laurence Farrell, far left, commander of the San Francisco District, and Brig. Gen. Rock Donahue, commander of the South Pacific Division. (Photo by Brandon Beach, U.S. Army Corps of Engineers San Francisco District)

District loses cost engineering chief

District Public Affairs Office

Phil Pang, chief of the San Francisco District's Estimating and Specifications Branch since 2001, died suddenly in his home June 12.

He was 51 years old.

Phil, a graduate of the University of California, Berkeley was a licensed professional



Pang

engineer in the State of California and a certified cost engineer.

"Phil was a very capable civil engineer and an exceptionally gifted cost engineer," said Herb Cheong, deputy of the district's Engineering and Technical Services Division. "He freely mentored and coached new and inexperienced engineers in the art of cost engineering."

Following graduation with a bachelor's degree in civil engineering from Berkeley in 1981, Phil joined Bechtel Western Power Corporation, one of the largest engineering companies in the U.S., where he designed civil infrastructure for nuclear power plants.

Five years later, he joined the San Francisco District as a civil engineer. Colleagues remember him fondly.

"Phil was a kind, friendly, gentle soul who cared and had the gift of enriching other's lives," said Cheong.

Phil is survived by his wife, Christina.

Keeping a community open for business

By Joe Barison

District Public Affairs Office

Larry Graham's first assignment as a new project manager in the San Francisco District was as manager of the San Rafael Creek Project. The year was 1992, and Graham's "new" project was already over 70 years old.

The San Rafael Creek Project started in 1919, when it was authorized by the Rivers and Harbors Act. The project's purpose is to keep the San Francisco Bay waterway approaching the City of San Rafael and the connecting inner channel leading into the city deep enough to allow boats to travel safely.

"Most of the commercial business [affected by the project] is in the Inner Canal portion. The project services about 98 percent of those commercial requirements," Graham said.

This economic benefit is important to the City of San Rafael, which sponsors the project in partnership with the Corps. "We looked at a study that showed there are approximately 25 businesses along the San Rafael Channel, employing around 65 people. These businesses include marinas, yacht harbors, boat-repair shops and storage places," said Richard Landis, the San Rafael public works administrative manager. "Together these businesses generate approximately \$10 million a year in revenue and rely on the navigable channel."

Another vital benefit is public safety. "The Coast Guard stopped providing safety patrols some years ago. The San Rafael Police Department operates a search and rescue boat, The Mission City, that responds to distress calls and performs rescue operations in the bay. When the tide is out, the channel is only two feet deep and is virtually unnavigable," said Landis.

The dredging project is comprised of two parts. The across-the-flats portion is the open bay water that a boater sails across on approach to the Marin County shoreline. The inner-canal portion is the bay's reach into San Rafael, with land on both sides of the waterway. The businesses referred to by Landis line the canal.

Without regular dredging, the flats usually level off to a depth of five feet, while the inner-canal holds at four feet. The project's dredging targets are to deepen the flats to eight feet and the inner canal to six feet. Currently, due to funding limitations, the Corps is aiming at a six-foot depth for both the flats and the inner canal.



Beach

The San Rafael Creek, which winds through the City of San Rafael, provides watercraft with access to many of the city's businesses, including yacht harbors and boat-repair shops.

These businesses generate approximately \$10 million a year in revenue and rely on the navigable channel.

Richard Landis
City of San Rafael

The Corps is authorized by Congress to dredge the flats portion on a seven-year cycle and the inner-canal portion on a four-year cycle. The next dredging is planned

for the environmental window of mid-August to November 30, 2010.

However, physical dredging is not the most difficult part of the project. "The environmental portion is the most challenging part, especially the sampling and testing," said San Francisco District Project Manager Graham. "We have to determine whether we have suitable (i.e., environmentally safe) material. If there were even a small environmental concern, dredging would stop while staff looked for a new, safe disposal site." So far in the project's 90-year history, safe placement of the dredged material has been successfully managed.

Graham is quick to point out that the project's team members are responsible for the long record of success. "Andrew Smith got the project off on the right foot, working on plans and specs. Jamie Yu picked up the ball since Andrew's departure and has been doing an excellent

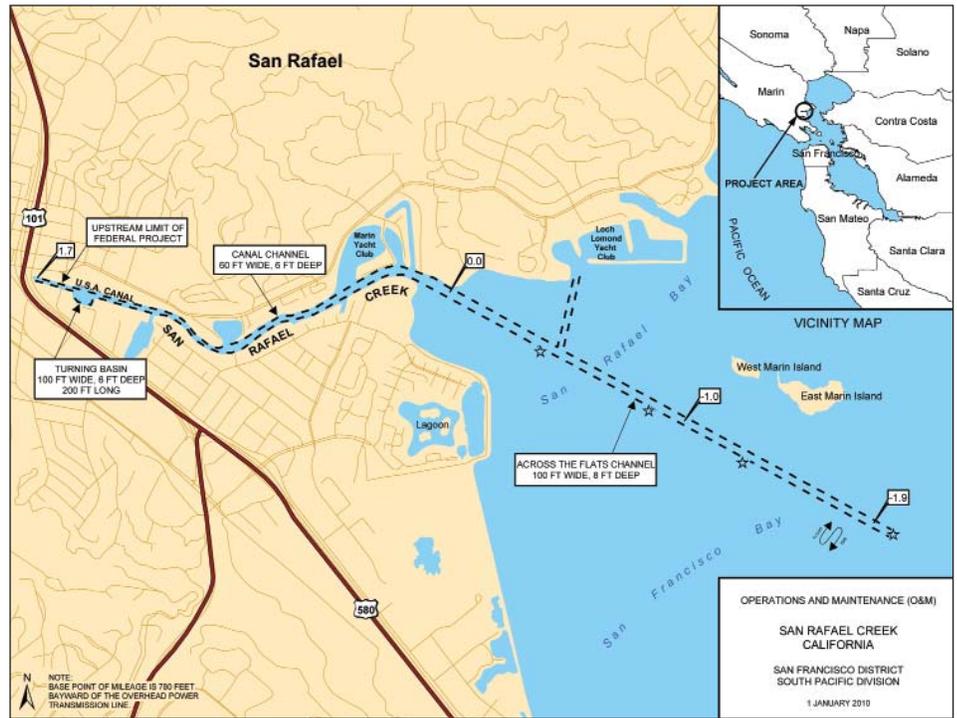
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San Rafael Creek continued

job. Ed Keller and Laurie Suda have done outstanding work in sampling and testing. Laurie was instrumental in making the project happen, by coordinating with the environmental agencies.”

The City of San Rafael appreciates its partnership with the Corps. “The San Francisco District has been fantastic to work with. Its people have been communicative, timely and professional,” said Landis. “I remember leaving a meeting with the Corps in April, and I was walking out with [San Rafael] Mayor Boro. He’s been to all kinds of meetings in his career. He told me it was one of the best meetings he ever attended – because of the responsiveness and helpfulness of the Corps.”

The map (right) locates the San Rafael Creek in the San Francisco Bay Area and illustrates how far the creek reaches into San Rafael. The dredging project includes the bay approach to the City of San Rafael as well as the creek.



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The 350-foot “Essayons,” above, is a suction hopper dredger operated by the U.S. Army Corps of Engineers Portland District. It is capable of vacuuming up nearly 6,000 cubic yards of ocean sand in one hour using its two enormous drag arms. The ship is contracted by the Corps of Engineers San Francisco District to dredge various locations around the San Francisco Bay every year.



Portland-based dredger deepens two sites in SF Bay

Story & photos by Brandon Beach
District Public Affairs Office

The 350-foot *Essayons*, a dredge ship operated by a 23-member crew from the U.S. Army Corps of Engineers Portland District, arrived in the San Francisco Bay June 2 for a 15-day around-the-clock dredging mission.

It was contracted to remove an estimat-

ed 500,000 cubic yards of sand from the minus 55-foot San Francisco Main Ship Channel and place it at an offshore location near Ocean Beach. The ship then moved north to San Pablo Bay to dredge the Pinole Shoal Channel, according to Steve Chesser, dredge program manager for the Corps of Engineers San Francisco District.

Referred to as a suction hopper dredger, *Essayons* is able to vacuum up nearly

6,000 cubic yards of ocean sand in one hour using two enormous drag arms. Every year, the San Francisco District contracts *Essayons* to dredge various locations around the Bay Area.

Keeping the bay’s navigation channels open to maritime traffic, such as container ships and passenger liners, is one of the key missions the Corps has under the “Rivers and Harbors Act.”

Inside Napa's marshes

State, federal agencies seek to

Story & photo by Brandon Beach
District Public Affairs Office

Construction began last month on two formerly-operated Cargill salt evaporation ponds in Napa, Calif., in an effort by various state and federal agencies to restore them to historical marsh wetlands.

The ponds, which cover approximately 300 acres, are one part of the \$134 million Napa River Salt Marsh Restoration Project, which began back in 1994 when Cargill first sold the property to the State of California. The land is managed today by the California Department of Fish and Game (CDFG) in federal partnership with the U.S. Army Corps of Engineers San Francisco District. At nearly 9,460 acres, the project is the second largest wetland restoration site on the West Coast.

"This area used to all be tidal marsh," said Susanne von Rosenberg, president of GAIA Consulting, Inc., a Napa-based environmental consulting firm for the project. "We've diked off, filled or otherwise eliminated from tidal action somewhere between 85 and 90 percent of these marshes."

The State completed construction of Ponds 1, 2, 2A and 5. The remaining ponds will be restored through a federal and state partnership at a cost of \$55 million.

If you can get vegetation to start, you are ahead of the game.

Susanne von Rosenberg
Project Contractor

To date, five of the 11 ponds in the Napa River Salt Marsh system have been fully restored, the first coming in 1995, when CDFG opened Pond 2a to tidal action.

"We had less than five percent vegetated when we started that pond. Now, it's over 95 percent," said Tom Huffman, a CDFG wildlife habitat supervisor. "As the habitat becomes more usable, we are starting to see a lot of species moving from the side areas back into the marsh."

This year, project agencies are focusing their efforts on restoring Ponds 7 and 7a, both of which were used by Cargill to store bittern, the by-product of salt evaporation.

"Cargill sold these ponds to [CDFG] essentially as-is with high-salinity brine



restore former Cargill property

in them,” said von Rosenberg. “The salinity in these ponds [7 and 7a] got as high as 400 parts per thousand. When we think of seawater being 32-35, that gives you an idea how salty that is.”

Unlike Pond 2a, which was breached to tidal action more than a decade ago, ponds 7 and 7a will function as managed pools.

“It means the ponds stay diked off. We will put in water control structures and set them up so that there is enough water circulating through the ponds,” said von Rosenberg.

The advantages of a managed-pool design are numerous. Not only do they provide the ability to circulate water through the system and improve overall water quality, but they increase the chance of bringing in sediment, a key ingredient in growing marsh vegetation.

“The ponds need to be at a certain elevation for vegetation to first colonize,” said von Rosenberg. “If you can get vegetation to start, you are ahead of the game.”

Managed ponds can also be adjusted to accommodate different water levels, a feature that is important in attracting diverse bird populations. The marsh is home to such endangered birds as the Western snowy plover, California least turn and California clapper rail.

“We know that birds respond very

strongly to water depth,” said von Rosenberg. “Essentially in the winter, we want to support the Pacific Flyway, and in the summer, we want to support the birds that reside here.”

Providing habitat for birds and other species as well as improving water quality are just two of the many reasons that environmentalists argue for the necessity of marshes.

“They also decrease the likelihood of localized flooding by spreading the water around a larger area,” said Karen Taylor, an associate wildlife biologist with CDFG.

And the area appears to be getting even larger as more restoration projects are underway. Across from the Napa River-Salt Marsh Restoration Project, CDFG is also involved in the Napa Plant Site Restoration Project, which includes 1,450 acres of future tidal marsh habitat. Other restoration efforts are the Sears Point Restoration Project with 2,327 acres and the American Canyon Restoration Project with 1,340 to name but a few.

“The pieces are lining up. That’s one of the big advantages of the North Bay because we’ve had less development. More land has remained in agriculture or other low-intensity use, so it’s possible to do more restoration,” said von Rosenberg.



photos by Brandon Beach

The “John A. B. Dillard, Jr.,” a new multi-purpose command-and-control response vessel, speeds along the waters near Sausalito, Calif., June 25.

District’s new vessel makes SF Bay debut

By Brandon Beach

District Public Affairs Office

The U.S. Army Corps of Engineers San Francisco District officially launched its newest vessel — the *John A. B. Dillard, Jr.* — with a June 25 christening ceremony at the Sausalito Base Yard.



Dillard

The boat is named after Maj. Gen. John Albert B. Dillard, Jr., who led the U.S. Army Engineer Command in South Vietnam until he was killed in action on May 12, 1970. He served as commander of the USACE South Pacific Division from 1966-68. Several members of the Dillard family attended the event, including Maj. Gen. Dillard’s son, Jack Dillard III, a resident of Camarillo, Calif.

“It’s an honor, not just

for myself but for my entire family, and of course, my father,” said Dillard in front of an audience that included distinguished military and civilian guests, district Corps employees and members of both the Veterans of Foreign Wars Post 8900 Color Guard and the “Sounds of Freedom” Military Band. “It means a lot that the Corps still reveres my dad’s command.”

Showing his father’s personal side, Dillard told stories of his childhood growing up at Fort Richardson, Ala., where his sister, Revealee, was born at the same time reveille, the bugle call to wake up military personnel, played on post. “He named her

on the spot [after the music] but didn’t know how to spell it,” he said.

Years later, as a high-school student at a military base in South Korea, Dillard fondly remembered being pulled from class by his father’s aide and taken to the post’s golf course, where to his surprise, his dad was teeing off with legendary Hollywood actor Bob Hope. Dillard was asked to drive the cart.

“It was a wonderful life,

I got to see the world,” concluded Dillard, fighting back tears. “All of you here that are part of the Corps thank you for making *him* possible.”

Following his remarks, Dillard joined South Pacific Division Commander Brig. Gen. Rock Donahue and San Francisco District Commander Lt. Col. Laurence Farrell at the bow of the ship to break the ceremonial bot-

Continued next page

It represents an unprecedented investment by the district.

Mike Dillabough
Chief, Operations & Readiness Division



Dillard continued

tle of champagne and dedicate the new vessel in his father's name.

Maj. Gen. Dillard served his country as both a soldier and professional engineer. He was a 30-year combat veteran of three wars including World War II, Korea and Vietnam. He attended the Virginia Military Institute earning a civil engineering degree. His Corps assignments included the Little Rock, Baltimore and Los Angeles Districts, in which he oversaw large engineering projects such as dams and bridges.

Calling him a "true hero in the Corps of Engineers," Brig. Gen. Donahue spoke about Dillard's legacy. "General Dillard said it best, 'I am a Soldier first, yet in my heart, an Engineer always,'" he said. "His devotion to duty inspires us all.

The *John A. B. Dillard, Jr.*, an 86-foot, catamaran-hull vessel built by Kvichak Marine Industries, joins a district fleet that includes the *Raccoon* and *Grizzly*,



Lt. Col. Laurence Farrell, right, commander of the U.S. Army Corps of Engineers San Francisco District, stands at attention before members of the Fresno-based Veterans of Foreign Wars Post 8900 Color Guard.

two boats that have been removing thousands of tons of hazardous debris from the San Francisco Bay for more than half a century.

Designed with two powerful double-propeller bow thrusters, the *Dillard* allows operators to respond to emergencies faster than its two counterparts. It is equipped with a pedestal-mounted

grapple crane for lifting heavy objects out of the water and a 15-ton deck load capacity. The ship can also be used to stage dive operations, conduct bottom profile surveying and establish emergency command-and-control during disasters. With bunks, showers and a full galley, the boat gives the crew an around-the-clock capability.

"It represents an unprecedented investment by the district," said Mike Dillabough, chief of the district's Operations and Readiness Division. "If [the *Dillard*] lasts as long as her sister ships, then we have ensured our missions can be carried out at least through the year 2080 and probably longer."

An aging fleet was one of the reasons the district began a seven-year collaboration with the USACE Marine Design Center and Kvichak in order to build a ship that could support a multitude of mission requirements.

Unlike a car that can be bought off a lot, a ship is a "unique creation that reflects intensive thought and consideration for every detail," explained Dillabough. Such planning went so far as the design of a fuel-efficient engine to the selection of an environmentally-friendly paint.

"The result is a ship that is built right, built strong and built to last," said Dillabough.



Brig. Gen. Rock Donahue, at podium, commander of the U.S. Army Corps of Engineers South Pacific Division, speaks to a near-capacity audience during a boat christening ceremony at the Sausalito Base Yard June 25.

EMPLOYEE NEWS

Many new faces join district in spring '09



Thomas Downs
Park Ranger
Lake Sonoma



Robert Antanasio
Project Manager
Regulatory South Branch



Grace Tsai
Paralegal Specialist
Office of Counsel



Dennis Chung
Supv. Civil Engineer
Construction Branch



Paul Welch
Drift Collection Worker
Navigation Branch



Sgt LaTressa Smith-Nealy
Human Resources Sergeant
Executive Office



Andrew Rapp
Engineering Technician
Engineering Branch



Mary Bridgewater
Supv. Civil Engineer
Construction Branch



Tammi Skalitzky
Park Ranger
Bay Model Visitor Center



Hyun Shin
Drift Collection Worker
Navigation Branch

2009 SPN Honorary Awards

Navigation & Structure *Team of the Year*



District Commander Lt. Col. Lawrence Farrell, left, presents the "Team of the Year" award to Hank Macner, middle, and Derrick Dunlap, both of whom are members of the Navigation & Structure Team. Other team members not pictured include Jimmy Britton, Rick Curry, Ken Danielson and Dan Denofrio.

Congratulations to our 2009 individual awardees

Bryan Matsumoto

District Employee of the Year

Anne Sturm

District Engineer of the Year

Jake Jacobson

Commander's Leadership Award

Wayne Shull

District New Employee of the Year

District presents service awards

The following SPN employees were presented with "Length of Service" certificates during an awards ceremony at the district's summer picnic June 17.

10 Years

Erick Beer
Yong Chong
Greg Cox
Marc Goodhue
Linda Holm
Joel Miller
Peter Mull
Sgt. LaTressa Smith-Nealy

15 Years

Linda Hales
Jay Kinberger
Arden Sansom
Susan Wilson

20 Years

Jay Arnold
Therisa Edwards
Robert Lawrence
Christine Patrick

25 Years

Mark Clark
Widdy Criner
William Firth
Moninder Grewal
Carlos Hernandez
Thomas Kendall

10 Years

Judy Labaria
Bick Lee
Karen Lincoln
Alfred Paniccia
Daniel Specht

30 Years

Donald Canevari
Herbert Cheong
Vicki Halley
Sabella Morena
York So
Steven Yip

35 Years

Karen Mason

40 Years

William Angeloni
Merle Griffin

A look at RM's Lorraine Louie

By Joe Barison

District Public Affairs Office

Lorraine Louie, chief of Budget and Manpower in the San Francisco District's Resource Management Division, has turned challenges into opportunities throughout her career.

Born in Hong Kong, Louie moved to Montreal with her family when she was six years old. Her immediate personal challenge was the language, as she spoke only Cantonese in a country where the native language is English. But her Quebec Province school required all children to learn French, and she was not exempted. "I learned English first. Math was taught in English. So my immersion was in English, and on top of that, I had to learn French an hour a day," Louie said.

Following Louie's completion of elementary school in Montreal, her family moved to San Francisco. Louie graduated from Lowell High School, where her studies gravitated toward math and sciences. She then attended the University of California at Berkeley, graduating with a double major: economics and social welfare. She was drawn to economics because, she said, "I like analyzing numbers, and studying supply and demand." She enjoyed social welfare studies because "I liked the psychology classes, working with people, especially those not as privileged [as many of us]."

After graduation, Louie began working for the Corps' San Francisco District as a program analyst in what today is the Programs and Project Management Division. She soon transferred to the Economics Section as an economist, where her main responsibility was analyzing and computing the benefit-cost ratio for projects to determine whether there was federal interest.

By this time, Louie had mar-



courtesy

Lorraine Louie is the chief of the district's Budget and Manpower Section.

Number analysis is what I really like to do. I enjoy that the most.

Lorraine Louie

On her current position

ried, and her husband had begun professional school in Los Angeles. Seeing an opportunity to join him in L.A., she took a financial economist position in the Corps' Los Angeles District. A few years later, when

her husband received a fellowship in Houston, Louie accepted a planner position with the Corps' Galveston District.

Her family eventually returned to the San Francisco Bay Area, which she considers her true home. Louie rejoined the San Francisco District – this time as project manager for the Hamilton Wetland Restoration Project. "I wanted to come back to the Bay Area, and I'd let [San Francisco District] managers know. I had two choices: be a planner or be a PM. I chose PM, although I didn't know which projects I would be managing."

Louie found the PM work interesting, but still preferred a greater focus on numbers and analysis. She transferred to a budget analyst position, working for current branch chief

Tom Hall in programs. "Numbers analysis is what I really like to do; my strength is in [working with] numbers – I enjoy that the most," she said.

Three years later, she made the move to the position she holds today – chief of Budget and Manpower for the district. Explaining the difference between the budget analyst and the budget and manpower positions, Louie said that in the former, she was working on budgets for projects; as Budget and Manpower chief, she works on the district's operating budget.

Then an unexpected turn appeared in Louie's path. She was "drafted." The chief of Resource Management position had become vacant, and the district commander wanted her to fill that highly responsible role until a new candidate was selected.

Louie recalls, "LTC Farrell asked me if I'd be interested in a temp assignment as chief of RM." She was interested, and she accepted, seeing the opportunity as "a chance to see if I'd like it. I was taking care of the budget and manpower. But the other side of RM is finance and accounting. It was a chance to learn something new. I wanted to try something new."

She learned fast and did extremely well, leading RM for the next six months. The hardest part for her as the interim RM chief was "meeting the goals and targets of the evolving budget and reaching nominal balances at fiscal year end."

After successfully meeting so many career challenges, Louie is pleased to be back in her budget and manpower position.

"I like working with our team. We have a lot of really good people," she said.

It should not be a surprise to anyone who knows Lorraine Louie that she enjoys working in a challenging position that involves both numbers and people.

Interagency group presents model of Corps' shifting role

By Tessa Eve Bernhardt
Special to "SPN Surveyor"

The role of the U.S. Army Corps of Engineers as sole decision maker and technical expert for water solutions is changing," prefaced Steve Stockton, director of Civil Works for Headquarters, USACE, as he began a presentation entitled, "Advancing Civil Works in 2010: Meeting America's Water Resources Challenges," at the 2010 National Planning Community of Practice Conference on June 10 in Orlando, Fla.

Our nation is facing complex and systems-level water resource challenges, he continued, referencing issues such as globalization; increasing demand for water; climate change; aging infrastructure; and governance, budget and legislative changes. In order to develop enduring water resource solutions under these conditions, the Corps of Engineers will need to adopt a new operating reality and take on fundamental new roles as a collaborative problem solver; a facilitator and convener; and a provider of data, information and technical assistance, he acknowledged, emphasizing the need to integrate transparency and efficiency into these new roles as well.

"The only constant is change — embrace it," concluded Stockton.

Easier said than done, right? Maybe not.

The San Francisco District has already adopted this "new" operating reality in other mission areas. For example, in terms of dredged material management, the District long ago assumed the fundamental roles described by Stockton through its participation in the Dredged Materials Management Office (DMMO) Interagency Working Group.

Initially established in 1996 with a Memorandum of Understanding between the federal and state agencies responsible for managing dredged material in the Bay, the DMMO Interagency Working Group is a model of collaborative problem solving.

The Interagency Working Group is comprised of the San Francisco District of the Corps of Engineers, the San Francisco Bay Conservation and Development Commission, the U.S. Environmental Protection Agency Region IX, the State Lands Commission and the San Francisco Bay Regional Water Quality Control Board as voting members, with the California Department of Fish and Game, NOAA Fisheries and the U.S. Fish and Wildlife Service as advisory members, explained Rob Lawrence, chief of the San Francisco District's internal DMMO and chair of the DMMO Interagency Working Group.



Beach
Rob Lawrence, left, chair of the DMMO Interagency Working Group, leads a discussion of a dredging application during a June 23 meeting in San Francisco. Also pictured from far left to right are Brenda Goeden and Samantha Hamlet of the San Francisco Bay Conservation and Development Commission, Bob Smith, a district regulatory project manager, and Mark D'Avignon, a district project manager.

The working group fosters a cooperative and consolidated approach to handling dredged material management issues.

The working group fosters a cooperative and consolidated approach to handling dredged material management issues. The participating agencies jointly review and discuss dredging applications, sampling and analysis plans and test results to come to consensus suitability determinations about where dredged material can be placed.

"The working group does not issue permits," said Lawrence, but "an overall function is to speed up the permitting process."

This collaborative approach benefits applicants and agencies alike by decreasing redundancy and increasing efficiency in the permitting process without altering the existing legal authority of any of the member agencies.

"The one big benefit of this group is that we do talk all the time, about all the projects that are in front of us and the ones we know are coming," said Lawrence.

Transparency in the permitting process was one basis for forming the working group, and it remains integrated into their approach. Agendas for the group's twice monthly meetings can be found on the San Francisco District's DMMO Web site, and interested public is invited to attend.

As the group's host agency, the San Francisco District of the Corps of Engineers assumes the role of facilitator — convening meetings, distributing information among agencies, applicants, and interested parties, and acting as the main clearinghouse on working group matters.

Additionally, this interagency group has robustly adopted the role of technical advisor and information provider. The technical expertise of the agencies involved and the regulated public is brought together in subgroups that investigate and provide guidance on topics associated with dredged material management. The subgroups address topics such as science and data gaps, factors confounding the dredging process (e.g. equipment availability), long-term dredged material policy, and anticipated dredging projects. In conjunc-

Continued next page

July/Aug 2010

tion with these subgroups, the working group has produced guidance on dredged material testing protocol, sponsored scientific studies, and facilitated permitting process workshops for the regulated community. The San Francisco District is also in the process of developing a web database of dredging-related information for the Bay that will be accessible to the public and include sediment chemistry results and GIS layers, said Lawrence.

The DMMO Interagency Working Group is a prime example of how the San Francisco District is ahead of the curve in implementing the fundamental roles described by Stockton. The new challenge for the District will be to adopt these roles when tackling the water resource challenges our nation is now facing.

While such change may not always be easy, the successful example set by the DMMO Interagency Working Group illustrates that realizing Stockton's new operating reality is possible — and that the benefits can be substantial.

Bernhardt is an environmental manager for the San Francisco District.

New Operating Reality

**Traditional
USACE Role**

Era of large federal, single-purpose water projects is over.

.....

Role of USACE as sole decision maker and technical expert for water solutions is changing

.....

Water resources community recognizes need for more transparency and engagement in water resources Planning

.....

There is a need and more desire for collaborative regional planning

**New / Renewed
USACE Role**

5

BUILDING STRONG®

Stockton

Steve Stockton's PowerPoint slide entitled, "The New Operating Reality," contrasts the traditional water resources management roles the Corps has undertaken in the past and the new roles that he believes the Corps must adopt in order to effectively address today's water resources challenges.

Environmental Section News

Symposium addresses bay dredging

By Brandon Beach

District Public Affairs Office

Government, industry and academic experts met May 19 at the California State Building in Oakland for a one-day symposium on dredging in the Bay Area.

The event was an opportunity for the San Francisco Bay Long Term Management Strategy (LTMS) Science Group to share their studies with members of the dredging community, as well as the public.

"The idea behind this science group is to make the results of these studies available for management decisions," said Bill Brostoff, an environmental manager with the U.S. Army Corps of Engineers San Francisco District, an LTMS agency.

One of the studies that was presented included a University of California, Davis-sponsored project on tracking fish in the Bay and their movement during dredging operations. Other studies have looked at



Beach

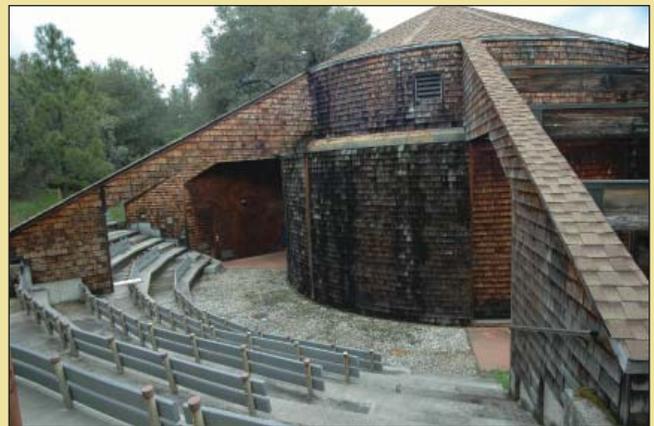
Bill Brostoff, an environmental manager with the San Francisco District, speaks at the May 19 symposium.

the impacts from dredging on certain threatened fish populations such as the green sturgeon and longfin smelt.

This was the second symposium on dredging this year.

For more information on studies by the the San Francisco Bay Long Term Management Strategy Science Group, visit www.spn.usace.army.mil/ltms.

Stimulus Dollars at Work



Beach

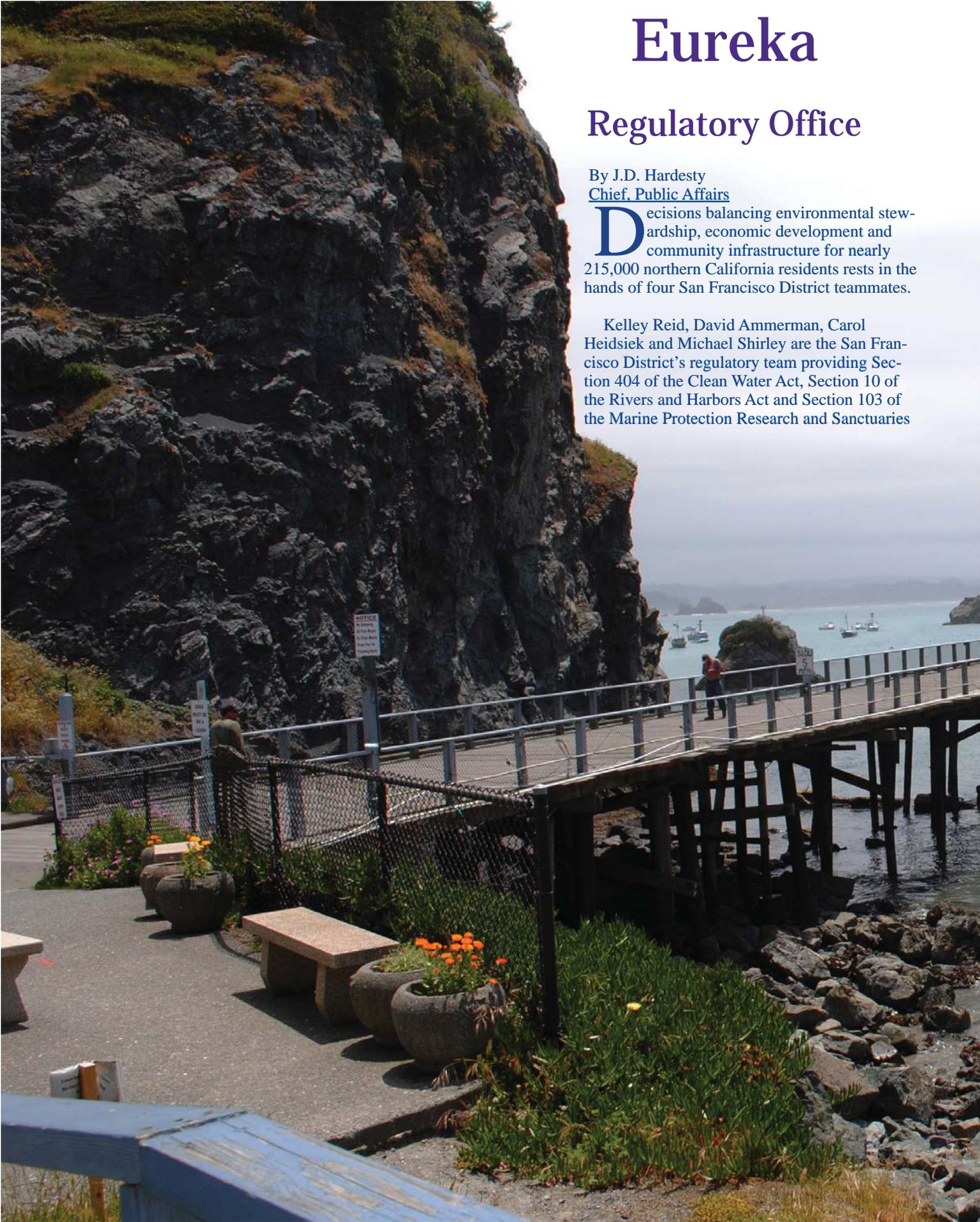
The Pomo Tribe Center at Lake Mendocino is undergoing renovation.

By Brandon Beach
District Public Affairs

The U.S. Army Corps of Engineers San Francisco District awarded a contract in May to Yerba Buena Engineering & Construction, a small 8(a) business in San Francisco, to renovate the exterior of the Pomo Tribe Center at Lake Mendocino. Funding for this \$245,650

project was provided by the American Recovery and Reinvestment Act.

Built in the early 1980's, the center is operated by the Coyote Band of Pomos and the Army Corps of Engineers. It has exhibits featuring Pomo dancing, basket making and hunting. It also has an outdoor amphitheatre, modeled after a traditional Pomo roundhouse, that is frequently used for performances.



Eureka

Regulatory Office

By J.D. Hardesty
Chief, Public Affairs

Decisions balancing environmental stewardship, economic development and community infrastructure for nearly 215,000 northern California residents rests in the hands of four San Francisco District teammates.

Kelley Reid, David Ammerman, Carol Heidsiek and Michael Shirley are the San Francisco District's regulatory team providing Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act and Section 103 of the Marine Protection Research and Sanctuaries

Northern California Coast

Balancing economic, environmental infrastructure

Act governance over 15,000 square miles of protected forests, grasslands, 200-mile coastline and wildlife refuges throughout the Winchuck River, Smith River, Eel River, Klamath River, Trinity River, Mad River and other watersheds across Del Norte, Siskiyou, Humboldt and Trinity counties.

The team protects the nation's aquatic resources while allowing reasonable development through fair, flexible and balanced permit decisions. They balance the nation's environmental interests with economic development to help bring projects to fruition.

"We have good people up here," said Reid, senior regulatory project manager. "David Ammerman (regulatory project

manager) is incredibly conscience to make sure applicants gets their permit as fast as possible without overstepping the Corps permit authority, Endangered species, Rivers and Harbors, Clean Water acts. He dots the "I"s and crosses the "T"s.

Ammerman issued critical permit to Simpson Timber Company to clean up tidal wetlands soil identified by the California Regional Water Quality Control Board to contain toxic contaminants. The Corps permit authorized the company to clean-up or remove all contaminated sediment and debris and to replant the swale with fresh-water and salt-water march vegetation. The project prevented the migration of contaminants into Humboldt Bay that could have caused biological or chemical harm to threatened species including coho, Chinook and steelhead salmon, as well as the endangered tidewater goby.

"Environmental concerns never get to rest or recover from economic development," said Kelley Reid.

Beyond protecting Humboldt Bay waters, the Eureka Regulatory Field Office partners with the State of California Department of Fish and Game, and in consultation with the U.S Fish and Wildlife Service and the National Marine Fisheries Service, issued a 10-year permit under Section 10 of the Rivers and Harbors Act to remove harmful dwarf eelgrass from Humboldt Bay and McNulty Slough.

Issuing a permit to removing evasive dwarf eelgrass helps restore natural habitat which provides protection for herring eggs, juvenile salmon, rockfish and crabs while providing migrating birds a food source.

The regulatory office balances business development with its role as the nation's environmental stewards.

According to Reid, many of the field office's permits balance business with the environment community infrastructure.

As an example, the district's regulatory branch issued a permit for CalTrans to replace a Mad River bridge north of Eureka on U.S. Highway 101.

The permit also covered installing new piers to protect the river's south embankment.

They also issued a permit to Humboldt County so

construction could prevent future erosion which threatened houses near the eroding bluff. Reid also performed a compliance inspection of the boulders and willows construction used to shore-up the bluff near the mouth of the river.

"I do like that we get to be an advocate for the environment so development doesn't negatively impact a natural resource.

The Eureka regulatory team works with Humboldt Bay Municipal Water District to provide water to industry and surrounding municipalities, they participates in the Wiyot Tribe's cultural restoration of Indian Island and they review the Trinidad Rancheria's application to rehabilitate and replace its existing Pier at Trinidad Bay and Harbor.

"Our permits allow environmental protection and business development to co-exist," Reid said. "We try to make the impact from economic development less damaging or more beneficial."

Interview with Lt. Col. Don Davis at Camp Stone

District Public Affairs Office

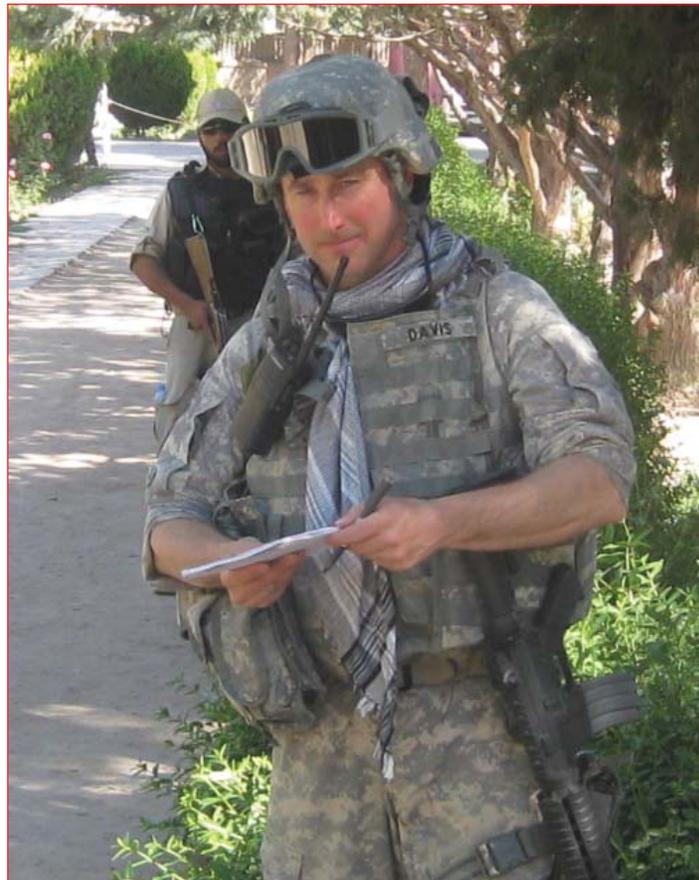
San Francisco District civilian and military personnel have been deploying to Afghanistan in support of our nation's Overseas Contingency Operations since 2003.

"SPN Surveyor" had the chance to speak with one of our deployed team members, Lt. Col. Don Davis, about his experiences since deploying to Herat, Afghanistan earlier this year. Davis, a project engineer with the district, was previously assigned to the San Jose Construction Resident Office.

Surveyor: Describe your work in Afghanistan?

The Herat Area Office is responsible for managing construction projects in support of Afghan police, army, and border patrol in four provinces. The AO has four subordinate ROs [Regional Offices].

With my work, as the Area Office OIC [Officer in Charge], I am responsible for the well-being of a staff of 95 U.S. and Afghan military, civilians and contractors. In coordination with the Area Engineer, I develop and execute aggressive project and route recon mission packages. We have security teams on the road five-to-six days a week, visiting 10-15 project sites a week. I provide the link between the Corps of Engineers and the military, governments and agencies in the region. Projects and efforts are coordinated with three major U.S. commands, the Italians and Spanish, the Afghans, Department of State and the Provincial Governor.



courtesy

Lt. Col. Don Davis, a San Francisco District project engineer, deployed earlier this year to Camp Stone, a U.S. military base in Herat, Afghanistan.

Surveyor: Would you say your work is rewarding?

Any OCO [Overseas Contingency Operations] tour is likely to prove rewarding (particularly in a field office), because there is so much that needs doing and can be done here. I have found this particular tour rewarding because I have been able to shape decisions, generate projects and develop programs that are already making a real difference for both

the Afghan people and our mission. I put together a U.S./Italian/Afghan Army/Navy engineer recon of an old Soviet installation that led to a re-development of that facility inside a town we were trying to hold, rather than the construction of a tent city 12 kilometers away. This resulted in a permanent facility where the forces were needed, rather than an expensive collection of ragged tents in the wrong place two years from now. Almost any-

thing is possible here.

Surveyor: Why should Corps of Engineers employees get involved?

Afghanistan has been important to the tides of civilization and history for the past 2,500 years, at least. It seems unlikely that this is about to change. A stable Afghanistan, an Afghanistan that can stand up for itself against and amongst its many neighbors, is important to you and to future generations. We have a window of opportunity given us, particularly those of us in the Corps of Engineers, to build a country strong enough to withstand the many stresses and strains at work in this region. Failing to participate successfully now practically ensures that we will continue to be involved for many, many years to come.

Surveyor: What would you say to a Corps of Engineers team members who is thinking about getting involved?

I strongly recommend that each of you consider a tour here. It is relatively safe for what it is. And the opportunity to make a real contribution is tremendous. It seems to also be an opportunity for individual advancement. Many Corps employees work above their typical assignment levels. ConReps frequently end up as PEs; PEs as REs, etc. A tour here is good for you, it's good for America, and it should be good for Afghanistan. No office here that I know of is staffed above 90 percent. We need more players.



Transatlantic Program Center
www.tac.usace.army.mil
Deployment Checklist
www.tac.usace.army.mil/deploymentcenter.civilian.asp
USACE Afghanistan Engineer District
www.aed.usace.army.mil
USACE Gulf Region Division
www.grd.usace.army.mil



Onboard the *Raccoon* with National Geographic

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photos by Brandon Beach

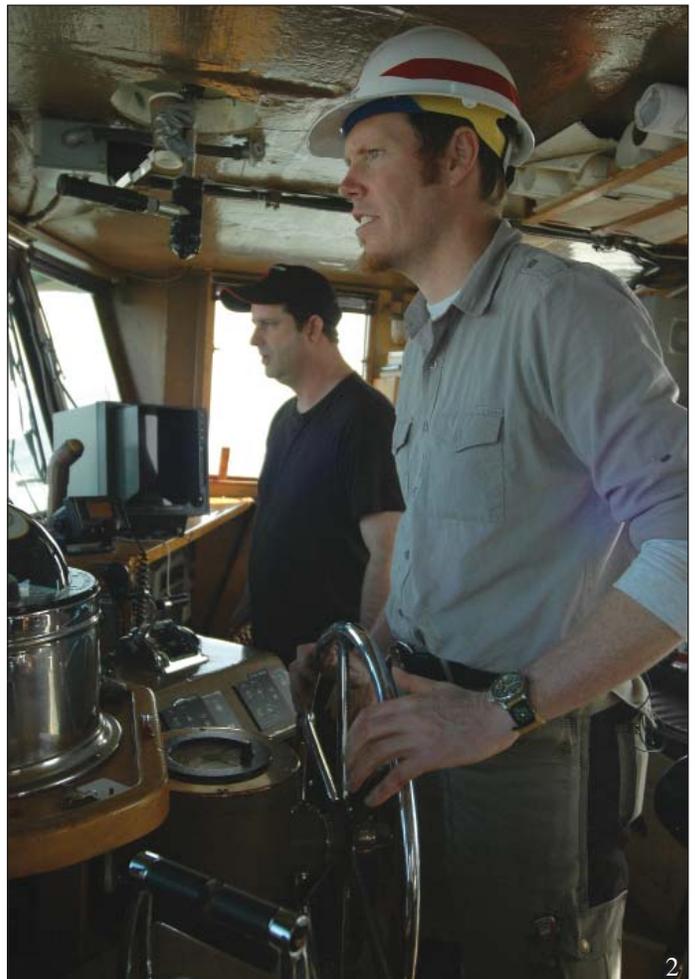
By Joe Barison
District Public Affairs Office

The San Francisco District's debris-removal vessel, the "Raccoon," its captain and its crew were featured in action on National Geographic Channel's "World's Toughest Fixes" telecast June 17.

The National Geographic TV production team spent two days aboard the *Raccoon* in February to learn first-hand about the vital and dangerous San Francisco Bay debris-removal work that our Corps teammates perform.

Under *Raccoon* Captain Joe McCormick's supervision, the program's host, Sean Riley, took the wheel. National Geographic even tied an impromptu "debris cam" to a floating wooden pillar to give a very unusual, water-level point of view of the "Raccoon's" mission.

[1] Sean Riley, right, ties a video camera to a pillar as David Whedon, the boat's team leader, assists. [2] The host takes the wheel as Captain Joe McCormick looks on. [3] Eric Ramoni, a marine machinery mechanic, gives the host some tips on hooking debris.



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101 Days of Summer

Keep safety top priority when getting into the water

Excerpt

USACE Water Safety Program

Every year, approximately 6,000 people drown in the United States. Drowning is the second leading cause of accidental deaths for persons 15-44 years of age. What is most surprising is that two-thirds of the people who drown never had an intention of being in the water.

Since most drowning victims had no intention of being in the water and since most people drown within 10-30 feet of safety, it is important that you and your family learn to swim.

Follow these tips provided by the U.S. Army Corps of Engineers National Water Safety



Beach

Lake Sonoma in Geyserville, Calif., is a popular summer destination for visitors.

Program Web site.

- Never rely on toys such as inner tubes and water wrings to stay afloat.
- Don't take chances by overestimating your swimming skills.
- Swim only in designated swimming areas.

- Never swim alone.
- Never dive into lakes and rivers. Every year, diving accidents results in more than 8,000 people suffering paralyzing spinal cord injuries. All too often, hidden dangers lurk beneath the surface of the water, including rock outcrops or shallow water.

• Watch small children. Remember, it only takes a few seconds for a small child to wander away. Children have a natural curiosity and attraction to water.

• Leave your alcohol behind. In fact, alcohol and water do not mix. Unfortunately, many people ignore this. More than half of the people that drown had consumed alcohol prior to getting in the water.

• Wear a life jacket. The number one cause of drowning is not wearing a life jacket.

To read the full version of this and other articles, visit the USACE National Water Safety Program at www.watersafety.usace.army.mil/safetytips.htm.

Tips to beat the summer heat

By A. R. Smith

District Safety Office

It's easy to get overheated while spending time and/or playing sports outside during the summer due to the higher temperatures and humidity levels hampering the body's ability to effectively cool itself.

Be aware of the symptoms of heat related illnesses, as well as measures you can take to help avoid them.

Prevent Heat Illnesses

- Keep hydrated by drinking water or non-caffeinated/non-alcoholic drinks throughout the day — even if you feel thirsty.
- Wear lightweight, light colored clothing that will reflect some of the sun's rays.
- Try to keep in the shade as much as possible.
- Do not eat a large amount of food during lunch.
- Stop participating in any sports if you become uncomfortably hot.
- Take air-conditioned breaks in your car if necessary.
- Wear a wide-brimmed hat.
- Be aware of medical conditions or medications that might

increase sensitivity to heat.

- Wear sunscreen with SPF of 15 or higher to prevent sunburn.

Care for Heat Stroke

Heat stroke is a life-threatening situation because the body's temperature control system stops working and brain damage and death may occur if the body is not quickly cooled. Body temperature can soar to as high as 105 degrees Fahrenheit.

- Move the person to a cooler location.
- Wrap a wet cloth around the person's body and fan it.
- Put ice or cold packs on each of the person's wrists and ankles, in the armpits, and on the neck to cool the large blood vessels.
- Watch for signals of breathing problems.
- Keep the person lying down.
- Contact 9-1-1 immediately and report the incident to the safety officer.

Smith is the chief of the district's Safety & Occupational Health Office.

He may be reached at 415-289-3031.

PLAY IT SAFE

LEADERS
SOLDIERS
FAMILIES

Running in the heat can be dangerous. follow the proper precautions and preparations:

- Stay hydrated!
- Run in the shade whenever possible, avoid direct sun and blacktop.
- Wear a hat and use sunscreen
- Wear loose, light colored clothing
- If you become dizzy, nauseated, have dry skin or the chills, STOP running and try to get a drink.
- Avoid drinks with high sugar concentration.

ON THE RUN!

SAFE Summer

ARMY SAFE IS ARMY STRONG I BANG U BROTHERS & SISTERS

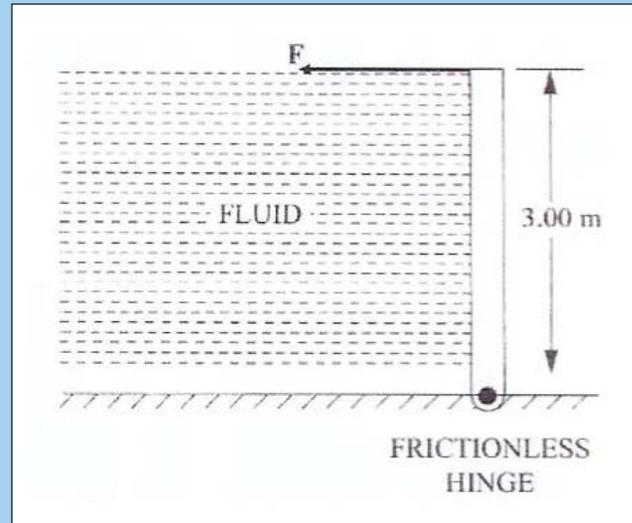
ENGINEERING CHALLENGE

Take on the engineering challenge in this month's SPN Surveyor. The first to solve this mathematical puzzler will receive a commander's coin, with the results being published in the Sept/Oct 2010 issue.

The Problem

The rectangular homogeneous gate shown to the right is 3.00 m high x 1.00 m wide and has a frictionless hinge at the bottom. If the fluid on the left side of the gate has a density of 1,000 kg/m³, the magnitude of the force *F* (kN) required to keep the gate closed is most nearly:

- (A) 0
- (B) 13
- (C) 15
- (D) 150



Courtesy

Submit your answers via e-mail to John Jacobson at John.H.Jacobson@usace.army.mil.

(This challenge was submitted by 1st Lt. Jonathan Parot.)

Answer to last issue's challenge

In the last issue of SPN Surveyor, readers were asked to determine the design load of an elevated reinforced concrete slab, along with the deck span for modular joist spacing and the number of joists to complete the form work. There was no winner for this challenge.

[ANSWER] ~150 lbs/sf, 19.2" joist spacing, 23 joists

Elevated Slab Design.

1. Design Load-

$$\text{Concrete} = \frac{7.25}{12} \cdot 150 = 90.625$$

$$\text{Formwork} = 8$$

$$\text{Live} = 50$$

$$P_{\text{design}} = \text{Concrete} + \text{Formwork} + \text{Live}$$

$$P_{\text{design}} = 148.625 \quad P_{\text{design}} > 100 \quad \text{okay}$$

Design Load = 148.625 lbs/ft²

2. Decking span = joist spacing (assume 12" wide strip to start)

Given: 3/4" C-C Exterior Plywood

$$F_b = 604 \quad E I_{\text{ply}} = 257000 \quad d_{\text{ply}} = \frac{5}{8} \quad F_s = 477$$

$$w_1 = 1 \cdot P_{\text{design}} \quad w_1 = 148.625$$

Bending

$$I_b = 10.95 \cdot \left(\frac{F_b}{w_1} \right)^{.5} \quad I_b = 22.074$$

Shear

$$I_v = 20 \cdot \frac{F_s}{w_1} + 2 \cdot d_{\text{ply}} \quad I_v = 65.438$$

$$\text{Deflection} \quad \Delta = .05$$

$$I_d = 6.46 \cdot \left(\frac{E I_{\text{ply}} \Delta}{w_1} \right)^{\frac{1}{4}} \quad I_d = 19.699$$

Smallest length is deflection length = 19.699 in use 19.2" joist spacing for modularity

Modularity: 4' x 8' plywood

$$8 \cdot 12 = 96 \quad \text{Length of 1 sheet plywood}$$

$$\frac{96}{19.2} = 5 \quad \text{Number of joists per sheet}$$

$$\frac{35 \cdot 12}{96} = 4.375 \quad \text{Number of sheets per span}$$

$$(4.375 - 4) \cdot 96 = 36 \text{ inches of partial sheet}$$

$$\frac{35 \cdot 12}{19.2} = 21.875 \quad \text{Number of joists required round up to 22 and add one for the end}$$

$$\text{Joist number} = 23 \quad \text{Last two joist will be 18 inches apart}$$



A day in the park

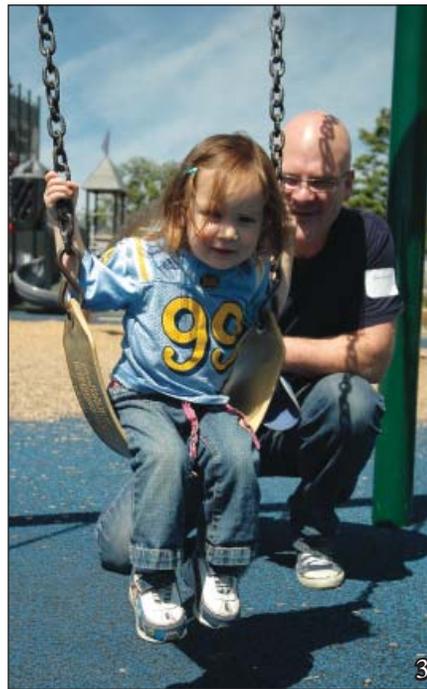
Employees, families enjoy organizational day

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[2] Maj David Kaulfers, Assistant to the chief, Programs and Project Management Division, works the barbecue line. [3] Blair Jackson, a district civil engineer, and his daughter, Audrey, spend time on the swings. [4] Irene Lee, right, a district project manager, volunteers her time to serve food. [5] Laura Costa, a district automation technician, finds some wind to fly a kite. (Photos by Brandon Beach)



3



2

[1] San Francisco District employees and their families spend a sun-filled day at Coyote Point Park in San Mateo June 17 during the district's annual organizational day. The event, hosted by the district's Activities Council, had more than 200 people attend.



4