



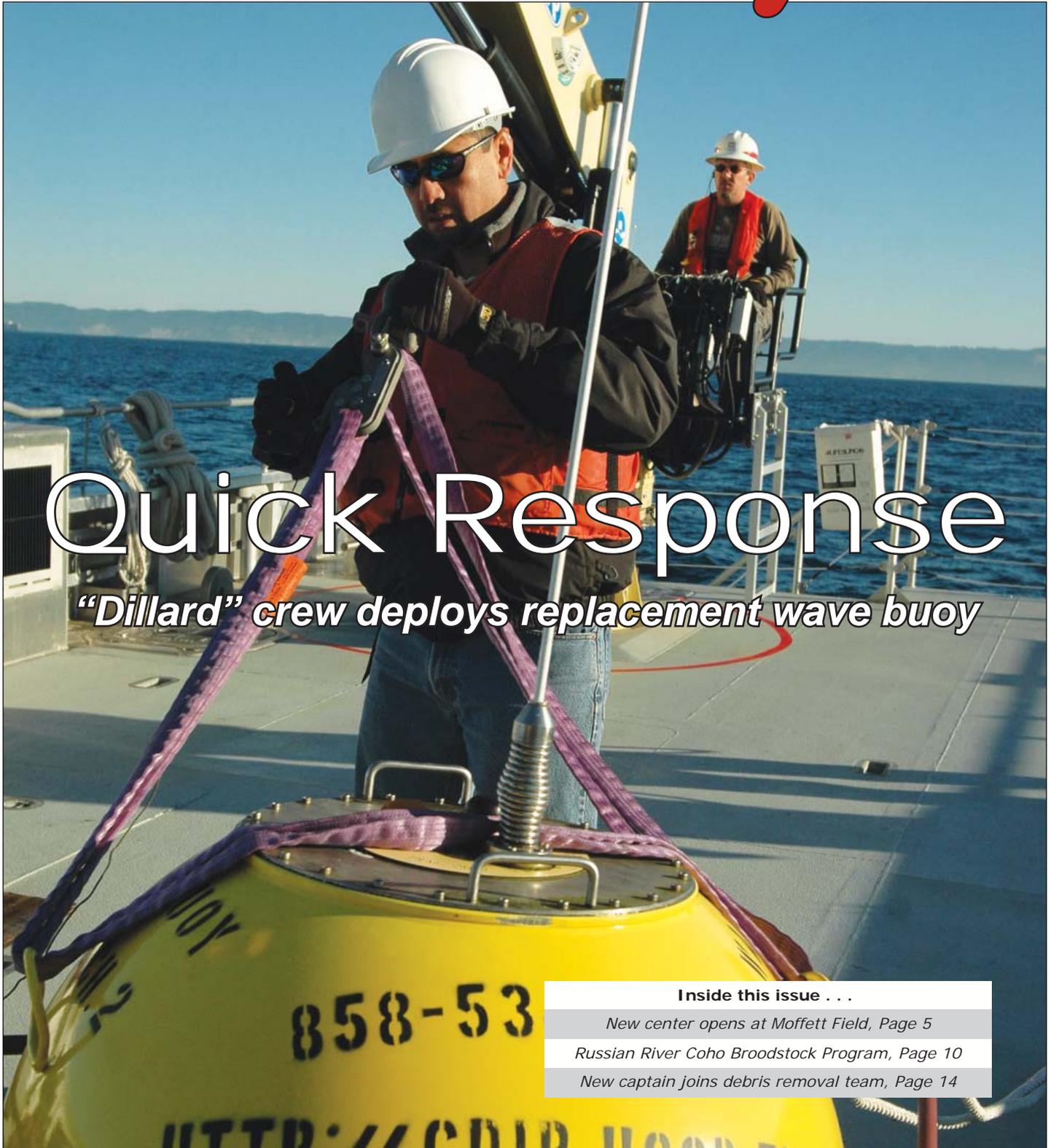
US Army Corps
of Engineers®
San Francisco District

SPN **Surveyor**

March/April 2011
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Quick Response

“Dillard” crew deploys replacement wave buoy

Inside this issue . . .

New center opens at Moffett Field, Page 5

Russian River Coho Broodstock Program, Page 10

New captain joins debris removal team, Page 14

COMMANDER'S CORNER

Achieving your full potential benefits You and the Corps

By Lt. Col. Torrey A. DiCiro
San Francisco District Commander

Last quarter, I sat down with our District chiefs and asked — How do we move forward as a District? That answer lies quite simply in You. Our District's journey from "Good to Great" starts with each and every member of our workforce. So I challenge You — What is it that You can do to make yourself and our District better?

Here are some ways to get involved.

Join your SharePoint team

I need all of You to begin building the District knowledge base through SharePoint. Each section has a designated content manager. Find out who your content manager is for your team, and let's build on our District capability. SharePoint is an excellent way to share documents and collaborate on projects. Our SharePoint site can be accessed at <https://kme.usace.army.mil/spd/spn>

Professional competencies

AKO offers free online training courses on a variety of subjects. Registering for AKO's e-Learning Program is easy and takes just a few minutes. Last month, we told you about the Project Management Professional (PMP) credential. It's one of the most sought-after, industry-recognized certificates for any professional working in a project management capacity. The courses are free, and applications are currently being accepted. This is a great way to challenge yourself professionally and



be recognized in your field. Learn more about this program at www.pmi.org

Professional organizations

Get involved in professional organizations. This is a great way to meet active working professionals in your field. Many of our District employees, for example, are members of the American Society of Civil Engineers. Last November, Hans Tolksdorf, one of our District engineers at Lake Sonoma, was recognized as the "Outstanding Young Member Officer" by the ASCE San Francisco Section. This is an excellent example of building valuable professional relationships.

Continued education

If you are seeking continued education

in your field, USACE offers competitive academic degree training opportunities, directly related to and in support of the Corps mission. The program offers both undergraduate and graduate-level studies. You're never too old to learn.

Honing your skills

One of the ways we develop our future leaders is through our nine-month Leadership Development Program. The program is open to all District employees and offers monthly professional lectures, team-building exercises and a final group project. Last year's LDP class explored ways to make our meetings here at the District more efficient. One of their findings was Adobe Defense Connect Online, a virtual conferencing tool provided at no cost to the DoD community. This year, members of that graduating class are offering monthly brownbag seminars in an effort to educate our workforce on this valuable new District asset. This is an excellent example of people going beyond their day-to-day job descriptions.

Get involved

There are so many ways to hone your skills, better yourself and get involved from our annual Leadership Development Program to the professional development courses available through AKO and the Corps' very own Learning Center.

Remember: Our journey from "Good to Great" is led by You. I look forward to many great things from You to come in the months ahead. It is a privilege to be on your team!

District Commander

Lt. Col. Torrey A. DiCiro

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SPN Surveyor

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TABLE OF CONTENTS

PROJECTS & EVENTS

Feature: Armed Forces Reserve Center at Moffett Field opens; new facility named after fallen Soldier 4

Dillard crew teams with Scripps to deploy research buoy 8

Interview: SPD's George Domurat discusses the Corps' Coastal Data Information Program 9

Russian River Coho Broodstock Program: Biologists see increase in coho returning to Russian River 10

Mare Island Drydocks celebrates opening in Vallejo; Suisan Reserve "Mothball" Fleet slated to be dismantled 13

PEOPLE & DEPARTMENTS

Employee Profile: Kixon Meyer, captain of the *Dillard* 14

History of SPN's debris removal mission; 1942 plane crash leads to program's authorization 14

Lake Sonoma joins nationwide eagle count 15

District's natural resource manager retires 16

Coast Guard recognizes Lake Sonoma staff 16

New employees join district team in winter '11 17

SPN ACTIVITIES

Engineering Challenge 18

Postcard from Afghanistan: SPN Civil Engineer Carmen Cheung writes about her first impressions 19

Equal Employment Opportunity News: Women's History Month; meet SPN's new EEO manager 20

On the cover

Victor Aguilar, front, a technician with the San Diego-based Scripps Institution of Oceanography, readies a Waverider buoy that will temporarily replace a National Data Buoy Center buoy that failed last month 18 miles off of San Francisco. Marty Plisch, a San Francisco District drift collection workers, prepares the ship's crane. (Photo by Brandon Beach)

March/April 2011

Wrapping up in Iraq

Release

USACE, HQ Public Affairs

As the Iraq war comes to an end and our troops come home, the U.S. Army Corps of Engineers can be proud of its accomplishments.

Over the last eight years, USACE has improved the long-term stability of Iraq. Since 2003, USACE has aided in the planning, construction and completion of more than 8,536 reconstruction projects, valued at \$15.5 billion. In Fiscal Year 2010 alone, the Gulf Region District completed 331 projects. Although the last troops will withdraw from Iraq in December 2011, USACE will maintain a significant reconstruction mission and presence in Iraq for years to come.

To date, 5,200 USACE civilians have deployed, or 14.3 percent of USACE's total workforce.

USACE achievements

- *Electrical Capacity Development:* U.S. and Iraqi efforts added 7,000 megawatts to the grid. At an average consumption of 1MWh per 1,000 homes, this equates to being able to provide hourly power to 7,000,000 U.S. homes or slightly more than the total number of residential power consumers in New York State.

- *Public Works & Water:* Water and sewer projects benefit more than five million Iraqis. One million cubic meters per day of water treatment capacity achieved through the Iraq Reconstruction Relief Fund.

- *Restoring Oil Production:* Three million barrels of oil (unrefined) per day of planned capacity have been met. That equates to about 126 million gallons of unrefined product — with 19.5 gallons of each barrel becoming gasoline.

- *Medical:* USACE medical projects have increased the capacity to treat patients; approximately 6.6 million patients in hospitals and 4.6 million outpatients at public health centers can be seen annually.

For more information about USACE's efforts, visit www.usace.army.mil.

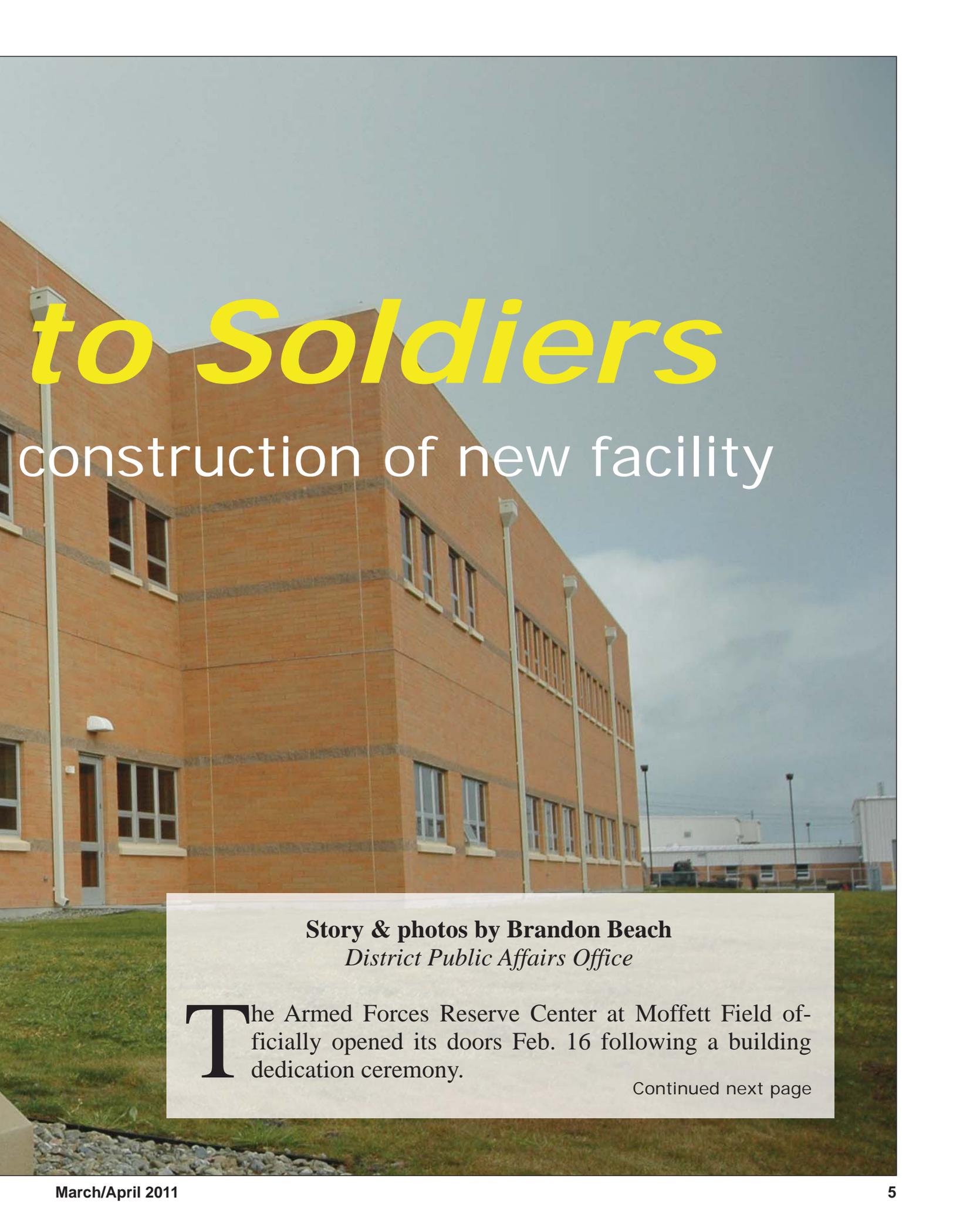


Commitment

USACE plays key role in

ARMED FORCES
RESERVE CENTER

MOFFETT FIELD



to Soldiers

construction of new facility

Story & photos by Brandon Beach
District Public Affairs Office

The Armed Forces Reserve Center at Moffett Field officially opened its doors Feb. 16 following a building dedication ceremony.

Continued next page

Moffett continued ...

The 186,500-square-foot facility in Mountain View, Calif., will now be home to the 63rd Regional Support Command and 28 Army Reserve and California National Guard units. It comes as a result of a 2005 Department of Defense Base Closure and Realignment Commission directive.

“Our leadership at that time had a commitment to our Soldiers to build a state-of-the-art facility,” said Brig. Gen. Jon Lee, commander of the 63rd RSC. “This is a facility of the future.”

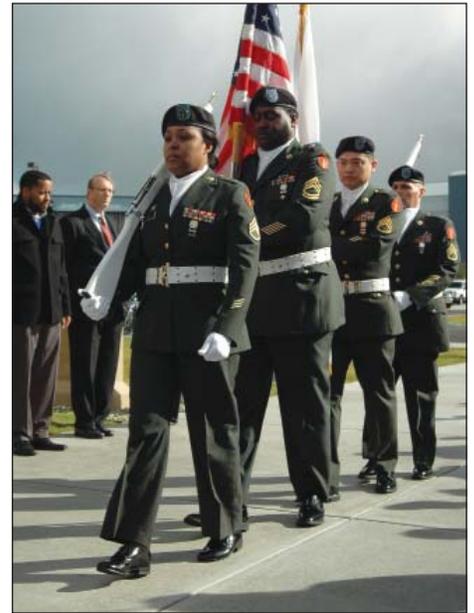
The center features a 220-seat auditorium, mess hall, fitness center, numerous offices and an indoor virtual weapons range for

simulated training.

Another state-of-the-art feature is an access floor built directly underneath the center’s office areas. With electrical and telecommunication lines below, the floor allows personnel to easily disconnect, move and reconnect desks in multiple configurations.

Additionally, the 30-acre site has both a 25,000-square-foot motor pool maintenance shop, capable of housing up to 100 vehicles under its roof, and a 51,000-square-foot unheated storage facility.

Construction on the \$80 million project began nearly two years ago led by the efforts of Walbridge Overaa, the project contractor, and the U.S. Army Corps of Engineers Sacramento and San Francisco districts.



Soldiers from the 63rd RSC present the colors.

“This facility gives our Soldiers a place to work with pride and a place where they can get work done in a manner that is befitting the effort they put in to serving this country everyday,” said U.S. Armed Forces Reserve Command Chief of Staff Brig. Gen. William Gothard.

The new center will be named after Sgt. James Witkowski, a gunner for the 729th Transportation Company, who died in combat on Oct. 26, 2005, when his convoy was ambushed by insurgents in



This facility gives our Soldiers a place to work with pride.

Brig. Gen. William Gothard
USARC Chief of Staff

A timeline: *Moffett Field*



April 11, 2009
Steel work begins



June 5, 2009
Last beam ceremony



December 2009
Building’s facade nears completion

Iraq. He was posthumously decorated with the Silver Star for heroic actions that saved the lives of his fellow Soldiers.

“A lot of pride and a lot of effort went into this building, and it really does mean a whole lot. To have a building named after an individual, it’s not just everyday that happens,” said Sgt. Maj. (re-

A lot of pride and a lot of effort went into this building, and it means a whole lot.

John Souza
Retired Sergeant Major

tired) John Souza, Witkowski’s platoon sergeant. “Everyone who travels through those doors are going to be looked over by [Witkowski]. Keep that in mind. You are in good hands.”

Attending the ceremony were Witkowski’s mother, father and other family members, as well as the many Soldiers of the 729th Trans-



Barbara Witkowski, mother of Sgt. James Witkowski, a Soldier with the 729th Transportation Center who died in combat on Oct. 26, 2005, pauses to reflect on a plaque commemorating her son.

portation Company that served with him on that fatal day.

“He loved his family, his unit, his country,” said Barbara Witkowski, his mother. “He joined the Reserves at the age of 29. He was going to make it a permanent career.”

A memorial of Witkowski, including his combat uniform, military

decorations and old photographs, will be permanently on display at the entrance of the center.

“His commitment was the ultimate sacrifice, and we honor him,” said Lee, during his remarks. “Commitment is strong. It’s in the brick and mortar we see today. It’s also in every Soldier out here.”



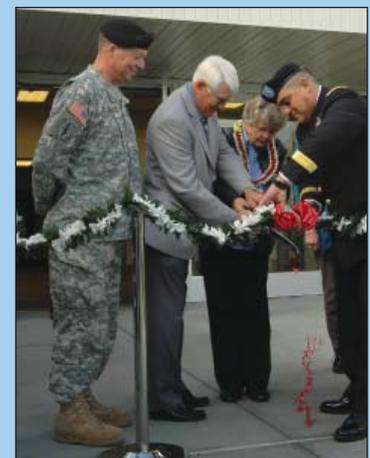
December 2009

Work on loading ramp continues



August 2010

220-seat auditorium completed



February 16, 2011

Ribbon cutting ceremony



Crew members of the “John A. B. Dillard, Jr.” work with researchers from the San Diego-based Scripps Institution of Oceanography Feb. 10 to deploy a wave buoy several miles off the coast of San Francisco. Data from this buoy will be used by Scripps to produce near-shore wave models of the Bay.

SPN helps deploy research buoy

— “Dillard” crew members team with Scripps researchers —

Story & photos by Brandon Beach
District Public Affairs Office

Crew members from the *John A. B. Dillard, Jr.*, a San Francisco District command vessel, teamed with scientists from the San Diego-based Scripps Institution of Oceanography Feb. 10 to deploy a wave monitoring buoy 18 miles off the coast of San Francisco.

The buoy was placed nearby the National Data Buoy Center’s (NDBC) 46026 San Francisco Buoy, which had malfunctioned a week prior.

Data from NDBC 46026 is used by the Coastal Data Information Program (CDIP) at Scripps to produce near-shore wave models. The U.S. Army Corps of Engineers is a major funder of this program as it uses these models for its planning purposes.

“It’s important to have very accurate wave information when you are trying to figure out where you need to dredge and where you need to put your dredged material,” said Brett Pickering, field coordinator for CDIP.

Scientists are hopeful that deploying this temporary buoy will ensure continuity of data from this location, as NDBC completes its repairs.

“This is a critical location for us as we provide a high resolution model to [USACE] for work being performed south of the Golden Gate [Bridge],” said Julie Thomas, executive director

Continued next page

This buoy, located 18 miles offshore of San Francisco, failed last month. SPN and Scripps Institution of Oceanography responded on Feb. 10 by deploying a temporary buoy near the area.



Buoy continued ...

at Scripps.

In the Bay Area, Scripps maintains a network of buoys that are used to collect a variety of data sets such as air and sea surface temperatures, wind and wave patterns.

All of this data is available in real-time over the Internet and is important not just to the Corps but to local mariners, harbor masters, lifeguards, recreational boaters and surfers.

This is such a tough area to work in because the seas are often so rough here.

Brett Pickering

Scripps Field Coordinator

“Every 30 minutes, the data is updated online and goes out to the National Weather Service for their forecasts,” said Pickering. “Anybody associated with the seas finds this to be very important information.”

The deployment of the buoy took a little over an hour. Crew members employed the boat’s pedestal-mounted



Victor Aguilar, left, and Brett Pickering of the Scripps Institution of Oceanography, along with Jim Pettigrew, far right, a San Francisco State University researcher, prepare the buoy for deployment.

crane to lift the buoy off the deck and place it in the water. With its twin-hull design, the *Dillard* gave operators a steady platform from which to work.

“This is such a tough area of the Bay to work in because the seas are often so rough out here,” said Pickering. “A lot of boats that are in the San Francisco area won’t work out here. If the seas are rough, [the *Dillard*] can hold position where a normal hull would have a hard time.”

Crew members that day for the *Dillard* included Marty Plisch, Steve Rohner, Ray Santos, Hyun Shin, and the ship’s captain, Kixon Meyer.

“We would like to acknowledge USACE for the use of this vessel and for their swift response in the deployment of the buoy,” said Thomas.

For more about the Coastal Data Information Program, visit www.cdip.ucsd.edu.

Interview with George Domurat

SPD chief discusses coastal monitoring program and the Corps

By Brandon Beach

District Public Affairs Office

The Coastal Data Information Program (CDIP) was established in 1975 by Scripps Institution of Oceanography and the U.S.



Domurat

Army Corps of Engineers in an effort to study waves and shoreline change along U.S. coastlines. Since its inception, the program has produced a vast database of publicly-accessible environmental data for

use by coastal engineers, scientists and mariners.

This writer talked with George Domurat, South Pacific Division chief of Operations & Regulatory and Programs Support Division, as well as a former San Francisco District coastal engineer, about his early work with CDIP.

Surveyor: How did CDIP get started?

CDIP was coined by the Corps of Engineers; in fact, we at the San Francisco District named it. CDIP originated from the wave data we were

collecting back in the late 70s. It was going to collect a lot of different kinds of information on nearshore processes, for example, waves and currents, and integrate it into a complete program. It wasn’t just the data analysis but to derive from that what the coastal nearshore picture looked like.

Surveyor: How was Scripps then involved?

[CDIP] really started around 1975 with Professor Richard Seymour down at Scripps. He devised this methodology to collect wave information using

two methods. One was to put pressure-measuring devices on the bottom of the ocean, in relatively shallow water. Those were our nearshore gauges. Then we had these buoys offshore to measure the response of the surface. They sense the upward and downward motion of the ocean, and that data was transmitted via radio to a shore station. So now what you have is data for the first time being collected almost every hour 24 hours a day.

So the program was developed by Dr. Seymour, and he approached the Corps of En-

Continued page 17



Coming back

Biologists see increase in



to spawn

coho in Russian River

By Brandon Beach
District Public Affairs Office

Nearly extinct a decade ago, coho salmon are beginning to reappear in the Russian River. Biologists with the University of California Cooperative Extension and Sea Grant Program recently recorded 34 coho at a trapping station in Mill Creek, a tributary of the Russian River. They estimate that up to 83 coho may have entered the stream, as many go undetected.

Continued next page

Photo by Mariska Obedzinski

Coho continued ...

One of the adult males found was tagged with a Passive Integrated Transponder, providing valuable data about its origin. Using this PIT tag, biologists were able to trace the fish back to the 2009 smolt release by the Don Clausen Fish Hatchery. It is the first recorded return of coho in several years and marks an initial success for the U.S. Army Corps of Engineers San Francisco District-funded coho broodstock program at Lake Sonoma.

"It's a good sign, modest as it is" said Peter LaCivita, regional fisheries biologist for the Corps' South Pacific Division. "Will it recover the population? Only time will tell."

Coho have come a long way since 1997, the year the Central California Coast Evolutionary Significant Unit was placed on both the State and Federal Endangered Species List, prompting the Corps and several wildlife agencies, including the National Marine Fisheries Service and California Department of Fish and Game, to establish a long-term recovery plan.

It would evolve into the Russian River Coho Captive Broodstock Program, a multi-agency effort aimed at putting coho back on the map. Since its inception, the program has completed six spawning cycles and released more than 300,000 juveniles into the tributaries of the Russian River.

In addition, the hatchery also produces 10,000 smolts every year that are released in nearby Dry Creek. The goal here is to ensure the survivability of the broodstock population with active numbers of fish returning to the hatchery to spawn.

"If your numbers are low, your breeding variety decreases," said LaCivita. "You run the risk of having a population failure, and



Obedzinski

Biologists recorded 34 coho salmon at this trapping station on Mill Creek, a Russian River tributary.

this population is already on life support."

Coho typically spawn from December to January. It is during this period that hatchery biologists strip eggs from females, mix them with male sperm and monitor their growth in incubation dishes. Selecting which male to pair with which female comes down to a highly-crafted breeding matrix developed by a geneticist at the University of California, Santa Cruz.

"What we try to do is avoid inbreeding as much as possible by maximizing genetic variation," said Ben White, a fisheries biologist at the Don Clausen Fish Hatchery.

It is the young of this broodstock population that is stocked back into the tributaries of the Russian River that historically had coho. This begins a three-year maturation

cycle for coho.

"They spawn, rear in the streams, go to the ocean and come back," said LaCivita. "That's one of the things that make coho so vulnerable is this three-year cycle. If ocean conditions are not favorable, you could have a very poor return that year. What we're seeing this year is we've had a couple of good storms early on and that's when coho tend to migrate upstream to spawn."

Not all of the tributaries that biologists stock with coho are monitored for returning adults, so if the findings at Mill Creek are any indicator, signs point to a very good year for coho.



Beach

Rory Taylor, a biologist with the Pacific States Marine Fisheries Commission, checks a tray of coho salmon alevin last year at the Don Clausen Fish Hatchery at Lake Sonoma.

About the hatchery

The Don Clausen Fish Hatchery was constructed in 1980 to mitigate for the loss of spawning habitat and nursery areas for salmon and steelhead rainbow trout. This habitat was blocked by the construction of Warm Springs Dam at Lake Sonoma which is located on Dry Creek, a tributary to the Russian River, 10 miles northwest of the town of Healdsburg.

Warm Springs Hatchery is 100 percent funded by the U.S. Army Corps of Engineers and maintained and managed by the California Department of Fish and Game's hatchery system. The hatchery is one part of the Milt Brandt Visitor Center run by the Corps of Engineers which covers the biological, cultural and anthropological natural history of the Dry Creek Valley. Two hundred thousand people annually visit the hatchery and visitor center.



The 9,500-ton, 592-foot “Solon Turman” will be the first of more than 50 ships making up the Suisun Reserve “Mothball” Fleet to be dismantled.

New ship recycling facility opens in Vallejo

Story & photo by J.D. Hardesty
District Public Affairs Office

Civic, environmental and regulatory organizations from across the region gathered Feb. 18 at the former Mare Island Naval Shipyard Dredge Materials Management Office to celebrate the opening of the Mare Island Drydocks by Allied Defense Recycling, creating a ship recycling facility open in Vallejo — the first reprocessing center on the West Coast.

Debra O’Leary, a project manager for the U.S. Army Corps of Engineers Dredge Materials Management Office, processed the dredging permit application to deepen material at the caisson doors. The Corps of Engineers is just one of the federal agencies teaming with environmental organizations, civic leaders and the private sector to bring the project to fruition.

“The drydock currently employs 50

These are very toxic ships. The sooner we get the ships out of the water, the better.

David Matsuda
MARAD Deputy Director

people,” said O’Leary. “An additional 50 people, at least, will be hired when the second drydock goes in production or demolition later this year. Should all four drydocks go into operation, [ADR] will employ approximately 250 people.”

U.S. Department of Transportation Maritime Administration Deputy Director David Matsuda hailed the opening not only as a win for the environment and for the local economy, but for

the maritime industry as a whole. The facility previously housed the Mare Island Naval Shipyard, which has been out of operation since 1996. The 9,500-ton, 592-foot *Solon Turman* will be the first of more than 50 ships making up the Suisun Reserve “Mothball” Fleet to be dismantled, bringing an estimated 50 new jobs to Vallejo.

“These are very toxic ships, full of asbestos and other harmful materials. The sooner we can get the ships out of the water, the better,” said Allied Defense Recycling spokeswoman Lily Smith. She said opening the Mare Island facility cuts normal ship recycling times in half.

A second “mothball fleet” ship due for dismantling, the *SS President*, is scheduled to arrive at Mare Island in March. Twenty ships are scheduled to be removed from Suisun Bay by September and recycled. The entirety of the fleet is scheduled to be removed and recycled by September 2017.

New *Dillard* captain learns finer points of debris removal

By Ryan McClymont
District Public Affairs Office

January marked the first time in approximately 35 years since the San Francisco District has had the capability of operating two multi-purpose debris removal vessels simultaneously.

The *John A.B. Dillard, Jr.* was christened on June 25, 2010, and the boat's new captain, Kixon Meyer, recently took command of the vessel. Meyer, who retired from the Coast Guard after 24 years of service, is the primary captain for the *Dillard*, but was cross-trained recently for the debris removal mission onboard the *Raccoon*.

Joe McCormick, captain of the *Raccoon*, a debris removal boat operated by SPN, was tasked with training Meyer on the unique operation of debris removal vessels.

"These boats are required to do some amazing stuff, and it is really beneficial to our mission to have this position back with the *Dillard* and to have employees cross-trained on both boats," said McCormick.

The *Dillard* is designed with two powerful double-propeller bow thrusters, which allow it to respond faster than

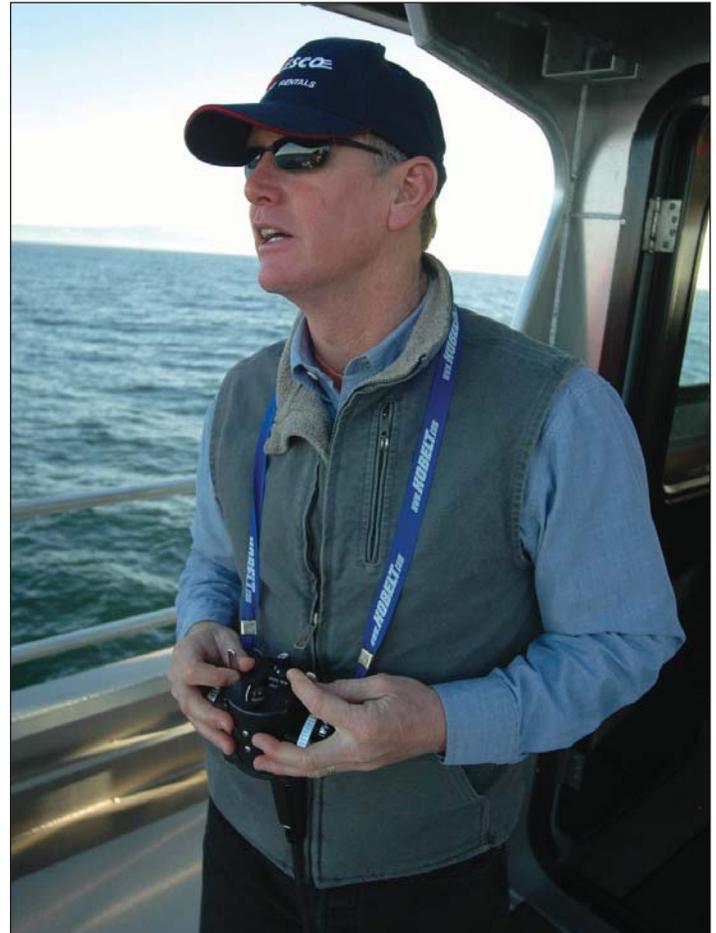
I'm definitely enjoying the opportunity to clean up the bay and keep it as clean as we can.

Kixon Meyer
Derrick Boat Captain

its older siblings in the district's fleet. It is also capable of bottom profile surveying, submerged object identification and recovery and command center emergency operations.

Meyer's greatest challenge in mastering debris removal operations on the *Dillard* is the way he maneuvers his boat. After spending a career trying to avoid debris, he is now being paid to drive along debris rifts to collect it.

"I've spent 30 years trying to avoid stuff in the bay and stay inside the shipping lanes, and now ironically enough, I'm doing just the opposite; I'm run-



Beach

Kixon Meyer, SPN's newest derrick boat captain, operates the "Dillard" using a remote control device during a recent buoy deployment mission.

ning around in the shallows trying to find it," said Meyer. "It's a different mission, and I'm

definitely enjoying the opportunity to clean up the bay and keep it as clean as we can."

Debris Removal Mission

A 1942 plane crash in the Bay leads to program's authorization

District Public Affairs Office

Floating hazards from rotting piers, sunken vessels and storm-tossed debris have always made navigation on San Francisco Bay difficult and caused many accidents.

Despite the danger to shipping, it was a seaplane crash into the bay that ultimately led to the authorization of a hazard removal program.

In June 1942, Admiral Chester Nimitz, recently appointed Commander in Chief, Pacific Fleet, was on his way to

Hawaii from Washington D.C. via San Francisco. While landing on San Francisco Bay, the seaplane in which he was aboard struck floating debris. The bottom of the aircraft was ripped open and it capsized. Admiral Nimitz was able to scramble to safety without serious injury, but the pilot was killed.

Shortly after that incident, the Chief of Engineers directed the Corps' San Francisco District to begin a hazard collection program in San Francisco Bay. Early efforts were cumbersome, but effective. During World War II, small tugs with crews

of both civilian and Navy enlisted men patrolled bay waters daily collecting floating hazards and towing them to a disposal site at the Alameda Naval Air Station.

Today, the San Francisco District's floating debris hazard collection boats, *Raccoon* and *Grizzly* work out of the district's Sausalito Base Yard facility. They range far and wide patrolling for debris in bay waters, removing a total of about 90 tons a month. The boats are converted World War II-vintage, converted aircraft recovery vessels that were modified to meet their hazard collection mission.



Lake Sonoma staff photos

U.S. Army Corps of Engineers park rangers Brian Emmons, left, and Joe Lishka view a pair of nesting bald eagles at Lake Sonoma last month.

Lake Sonoma joins nationwide eagle count

By Joe Lishka
Special to "SPN Surveyor"

Three rangers participated in this year's Midwinter Bald Eagle Survey (MBES): Joe Lishka, Brian Emmons and Linda Clapp. We surveyed the entire lakeshore, approximately 50 miles by boat. The team observed two adult bald eagles, one juvenile bald eagle approximately two years old, and three adult golden eagles.

The bald eagles were observed adding twigs to a nest. There are two nests above the lakeshore approximately 300 yards apart. The breeding pair has alternated between these two nests, successfully fledging one or two young every year since 2001, when rangers first became aware of them.

Also seen were two peregrine falcons, over 10 red-tailed hawks and a river otter. No ospreys were observed during the survey. The lake has a healthy population of ospreys with seven nesting pairs during the 2010 breeding season, but most migrate out of the area for the winter.

March/April 2011

This year's MBES was conducted from Dec. 29, 2010 to Jan. 12, 2011, with target dates of Jan. 7 and 8.

About the Survey

The survey was first conducted in 1979 by the National Wildlife Federation. Back then, bald eagles were in a fight to stay alive.

"At that time, we had just a few 100 bald eagles nesting in the lower 48 states," said Wade Eakle, an ecologist with the USACE South Pacific Division.

Widespread use of DDT and other pesticides in the 1950s and 60s led to infertility in eagles. The effects of such chemicals were eventually discovered, and a ban was placed on their use in 1972.

Wildlife experts estimate that up to 6,000 nesting pairs of bald eagles live in the continental U.S. today.

At Lake Sonoma, park rangers are aware of one nesting pair of adult eagles that have been residents of the 2,700-acre lake. Other bald eagles migrate seasonally to Lake Sonoma, some traveling as far as the northwesternmost province of Canada.

With plentiful food options like fish and small mammals, Lake Sonoma and its surrounding forest areas provide "critical habitat for eagles," said Eakle. "With its lakes and parks, the Corps has always played a key role in the recovery and conservation of bald eagles across the U.S."

Data is collected and forwarded to the U.S. Geological Survey for inclusion in a national database set up to monitor eagle populations in the lower 48 states. Various wildlife agencies and other private volunteer observers also participate in the mid-winter count.

The eagle was declared an endangered species in 1967. In 1995, it was reclassified to the less-severe "threatened" list as its numbers began to rebound, and, in 2007, it was completely delisted.

-- Additional reporting by Brandon Beach.

Lishka is a San Francisco District park ranger at Lake Sonoma and the Calif. State coordinator for the Midwinter Bald Eagle Survey program.

District's natural resource manager retires

By Chris Gallagher
Special to "SPN Surveyor"

As of Dec. 31, Nancy Rogers, a long-time employee of the Corps of Engineers (majority of that time being spent at the San Francisco District), bid farewell to the day-to-day work life and hello to more relaxing days. Unfortunately, Nancy's official day came during the holiday leave schedule; however, that did not deter us from sending her off in style.

On Jan. 21, approximately 60 well-wishers gathered in Petaluma (Nancy's hometown) to send her off. Attendees included friends, retirees and co-workers from SPN, South Pacific Division, Sacramento District, and the many partners that Nancy had forged relationships with over the years. These included folks from East Bay Regional Parks, Calif. Department of Fish & Game (CDFG) and Calif. State Parks.

Nancy started her federal service working for the National Park Service and relayed some stories from those days. She even had saved a scarf from her uniform — very similar to what airline stewardesses used to wear. She went on to work at Mark Twain Lake in Missouri and met her future husband, Dave, there.

She then found her way to SPN as the Senior Ranger at the Bay Model Visitor Center in 1985. Nancy worked her way up

to become Park Manager in 1990. In 2001, Nancy was promoted to be the District Natural Resource Ranger assisting Lake Mendocino, Lake Sonoma and the Bay Model. All along the way, I was lucky to follow in her footsteps at the Bay Model — first as Senior Ranger and then as Park Manager.

Nancy has been instrumental in all aspects of the operation at all three parks. She has assisted in securing additional funding through grants and handshake partnership awards to doing projects at each of the sites. This has resulted in better exhibits and interpretation. She has embraced the idea of partnerships and forged relationships that will continue to help us for years to come. Her partnership with CDFG was memorialized by David Moore who wrote a special song to Nancy and sung it to her at the lunch.

Nancy contributed at the USACE, Headquarters level as well, developing interpretive stories for the Corps to put in all their visitor centers. She was also an instructor for the Interpretive Services Prospect class.



Gallagher

Nancy Rogers, facing camera, and 60 well-wishers celebrated her retirement Jan. 21 during a luncheon in Petaluma.

In all of these roles, she touched many lives throughout the Corps. Many people reflected and wrote emails indicating what an influence Nancy has had on their careers. She has served as a mentor to many.

We will all miss Nancy's persistence, love of interpretation, her willingness to never give up, and most of all, her sense of humor. She is never far away as she reminds me. We wish her well in her retirement, and I hope her and her husband have many happy trails ahead.

Gallagher is the park manager at the Bay Model Visitor Center.

Coast Guard recognizes Lake Sonoma staff

Lake Sonoma Park Ranger Lance Pool, right, accepts a Certificate of Appreciation for "Outstanding Support During the 2010 Recreational Season" from Commander Will Sumner of the U.S. Coast Guard Auxiliary Floatilla #55. The certificate recognized the exceptional partnership and dedication regarding maritime safety and security between the Coast Guard and the U.S. Army Corps of Engineers Boat Unit at Lake Sonoma. Other Lake Sonoma staff receiving certificates were Sue Wilson, Michael Carroll, Linda Clapp, Harry Sandoval, Joe Lishka, Nicole Davidson, Erik Beer and Rachel Mack.



New employees join district team in winter '11



Valerie Lee
Chief Financial Officer
Resource Management Branch



Scott Mochizuki
Construction Control Rep
Construction Branch



Kixon Meyer
Master Derrickboat
Navigation Branch



Denise Wickson
Civilian Pay Technician
Resource Management Branch



Neil Hedgecock
Project Manager
Programs & Project Mgmt Division



Paul Mason
Chief
Cost Engineering Section



Nicholas Malasavage
Civil Engineer
Geo-Sciences Section



Sarafina Maraschino
Paralegal Specialist
Office of Counsel



Bijan Nooranbakht
Civil Engineer
Readiness Branch



Debra Tauben
Paralegal Specialist
Office of Counsel

Domurat continued ...

engineers to find out if the Corps would be interested in taking this kind of system he had and using it up and down the coast starting with California.

Surveyor: What was your involvement early on with CDIP?

I was a coastal engineer working for the San Francisco District at the time. Funding came from Washington. It originally came straight to [SPN], and the District managed the program 100 percent. We would do all the contracts for buying the wave buoys. We would do the contracts for installing them. We wrote the contract with Scripps to do all the work they were doing.

So in the early days, I used to go to a lot of installations. I would actually dive with them to install the nearshore gauges. We were putting in gauges up and down the coast.

One of the original goals was to really look at how waves transformed from deep water into shallow water. We were looking at using that information in what we called then near real-time, be-

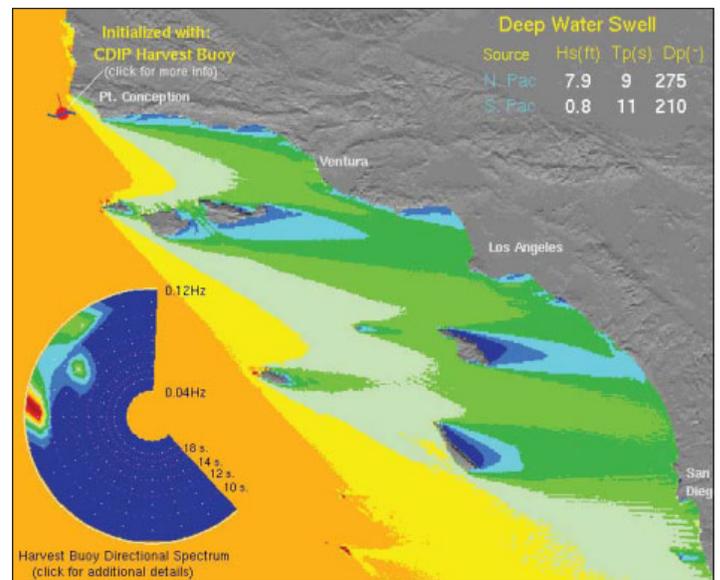
cause you could collect the information every hour, but then you would get a report within a few days. Now everything comes out instantly.

Surveyor: How was the data being used by the Corps and others?

The information we were gathering was to help some of the dredging operations, help some of the ports and harbors be able to predict what the waves were doing at their entrances in terms of hazardous conditions.

Surveyor: How does NOAA [National Oceanic and Atmospheric Administration] fit into all this?

NOAA also has the responsibility to collect wave information. They tend to focus more on deep ocean waves, so we broke up the coast into things that were pretty far offshore, where NOAA has its big buoys — 20, 30, 40 or more miles out — versus what we were doing which was near-shore, only 1,000 yards or so from the beaches. Now all this data is merged together.



The chart illustrates significant wave height in the Southern California Bight and is an example of the type of data generated by CDIP researchers.

Surveyor: How has the program grown since its inception?

It started just with California, and then it expanded to Oregon, Washington, Hawaii, Florida and the East Coast. Because we've been collecting this type of data for over 30 years, you get a really good understanding of what the near-

shore wave regime is doing and are able to build numerical models that can predict it up and down the coast to very high accuracy.

[Editor's Note] Today, CDIP is managed by Scripps and the Corps' Coastal Engineering Research Center. For more on this program, visit www.cdip.ucsd.edu.

ENGINEERING CHALLENGE

Take on the engineering challenge in this month's SPN Surveyor. The first to solve this problem will receive a commander's coin, with the results being published in the May/June 2011 issue.

About Hydro-Acoustic Investigations

The Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA) require federal agencies to analyze the potential impacts of our actions on species and the environment. For projects involving certain types of in-water work, such as pile driving, these analyses include hydro-acoustic investigations of the potential impacts of underwater sound generated by the project.

Sound generated by pile driving has the potential to cause temporary or permanent hearing loss, swim bladder ruptures, eye hemorrhaging or death in fish and/or marine mammals (whales, dolphins or seals) depending on characteristics of the environment and the organism. This could cause the extinction of species currently imperiled due to low numbers.

When performing such investigations, it is necessary to identify the acoustic impact area. The outer boundary of this area is defined as the distance at which the accumulated pile driving sound is expected to attenuate to a given injury threshold sound level.

The practical spreading loss model below is used to estimate transmission loss (attenuation) of sound through water.

The Problem

Q1: A San Francisco District project proposes to drive a 24-inch in diameter steel shell pile 60-feet below the Bay mudline using an impact hammer. Given the practical spreading loss model and the following information, calculate the distance to the outer boundary of the acoustic impact area for fish of mass greater than 2 grams.

Injury Threshold for Fish over 2 grams: 187dB Sound Equivalency Level (SEL)

Piles: 1

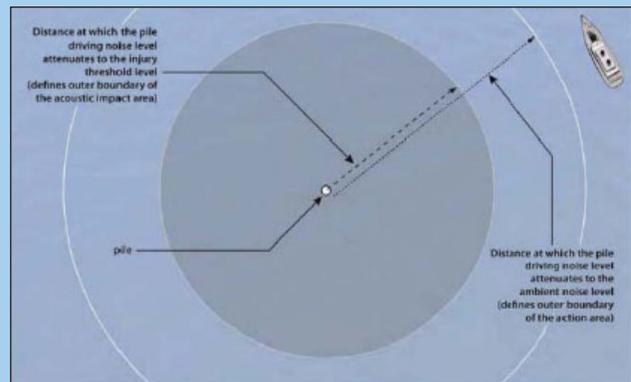
Strikes/Pile: 300

Single Strike SEL (at 10 meters): 178dB

SEL(ACCUMULATED) = SEL(SINGLE STRIKE) + 10 log (# of pile strikes)

Sound Attenuation Factor (F): 16

Q2: The project environmental manager proposes the use of an unconfined bubble curtain attenuation device to lessen the associated hydro-acoustic impacts. Assuming this type of device reduces



ICF Jones & Stokes (2009)

$$\text{Transmission loss (dB)} = F \cdot \log(D_1/D_2)$$

Where:

D_1 = The distance at which the targeted transmission loss occurs;

D_2 = The distance from which transmission loss is calculated (usually 10 meters);

F = A site-specific attenuation factor based on several conditions, including water depth, pile type, pile length, substrate type, and other factors; and

Transmission loss (TL) = The initial sound pressure level (dB) produced by a sound source (i.e., pile driving) minus the ambient sound pressure level or a target sound pressure level (e.g., the injury threshold for salmon). TL also can be thought of as the change in sound pressure level between D_1 and D_2 .

ICF Jones & Stokes (2009)

transmission of sound through the water by 5 dB, what would the distance to the outer boundary of the acoustic impact area for fish of mass greater than 2 grams be if the device were employed?

Bonus: What is the (unrealistic) assumption about a sound receptor (e.g. a fish or marine mammal) made in this analysis when calculating the accumulated SEL?

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

(This challenge was submitted by Tessa Bernhardt, an environmental planner in SPN's Planning Branch.)

Postcard from Afghanistan



Hello from Kabul,

Let me start by saying that I arrived on a Sunday night to a lobster tail dinner. Food here is great, at least to me. Who can complain about all you can eat T-bone steak, shrimp or crab?

Not to mention the free laundry service, but my favorite thing about my experience so far, are the friends that I have made. We're like one big diverse family. We have our meals together, hunt for Afghan treasures at the bazaars, travel together and have plenty of laughs.

There are so many people here. We have met people from ISAF [International Security Assistance Force], [U.S.] State Department and even soldiers from different countries. Guess who else decided to show up? The big chief, Gen. [Robert] Van Antwerp, [U.S. Army Corps of Engineers commanding general]. Awesome!

Anyway, it has been an eye opening experience and has made me realize how much I take for granted.



USACE AED staff photo

Carmen Cheung, left, a civil engineer in the district's Geo-Sciences Section, recently deployed to Kabul in support of the nation's Overseas Contingency Operations. She is shown here interacting with Afghani children during Shadow Day, an event on the local U.S. military installation in which children of host-nation employees of the base are invited to learn about life on the job.

Thanks to all who keep us safe. And finally, "I left my heart in San Francisco ..." (Tony Bennett).

Carmen

Challenge continued . . .



Beach

Maj. Sam Volkman, left, district deputy commander, presents a commander's coin on behalf of Lt. Col. Torrey DiCiro to Marvin Horton, a SPN civil engineer at Lake Sonoma and winner of the Surveyor's Jan/Feb Engineering Challenge.

Answer to last issue's challenge

In the last issue of SPN Surveyor, readers were asked to answer two questions related to the shear and ending moment of a beam. Here's how Marvin answered them.

- $R_L = 533.33 \text{ lbf}$;
 $R_R = 1-66.67 \text{ lbf}$
- Max Shear = -667.67 lbf
Max Moment = 1422.20 ft-lbf
Location of the Point of zero shear and max moment is: $x=5.33 \text{ ft}$

WOMEN'S HISTORY MONTH

Proclamation salutes women's achievements

By Barack Obama
U.S. President

Countless women have steered the course of our history, and their stories are ones of steadfast determination. From reaching for the ballot box to breaking barriers on athletic fields and battlefields, American women have stood resolute in the face of adversity and overcome obstacles to realize their full measure of success. Women's History Month is an opportunity for us to recognize the contributions women have made to our Nation, and to honor those who blazed trails for women's empowerment and equality.

Women from all walks of life have improved their communities and our Nation. Sylvia Mendez and her family stood up for her right to an education and catalyzed the desegregation of our schools. Starting as a caseworker in city government, Dr. Dorothy Height has dedicated her life to building a more just society. One of our young heroes, Caroline Moore, contributed to advances in astronomy by discovering a supernova at age 14.

When women like these reach their potential, our country as a whole prospers. That is the duty of our Government — not to guarantee success, but to ensure all Americans can achieve it. ...

Women also hold disproportionately fewer science and engineering jobs.

As we move forward, we must correct persisting inequalities. Women comprise over 50 percent of our population but hold fewer than 17 percent of our congressional seats. More than half our college students are female, yet when they graduate, their male classmates still receive higher pay on average for the same work. Women also hold disproportionately fewer science and engineering jobs. ...

This month, let us carry forth the legacy of our mothers and grandmothers. As we honor the women who have shaped our Nation, we must remember that we are tasked with writing the next chapter of women's history. Only if we teach our daughters that no obstacle is too great for them, that no ceiling can block their ascent, will we inspire them to reach for their highest aspirations and achieve true equality.

To read the full version of this proclamation, visit www.whitehouse.gov.

Next EEO seminar ...

Making your Federal Dollars Work for You

Presenter: Aaron Larsen, SPK Human Resource Specialist
Topics: Planning retirement, selecting health plans, taking leave to care for a family member and teleworking.

Wednesday, March 16

11 a.m. - 12:30 p.m.
9th floor conference room



www.deomi.org

This year's National Women's History Project looks at the unique stories of women's achievements throughout the centuries.

Sacramento's EEO mngr joins district staff

By Joe Aguila
Special to "SPN Surveyor"

Linda Brown joins the San Francisco District as the new Acting Equal Employment Opportunity Manager. She has over 30 years of specialized experience in the EEO and Human Resources communities.



Brown

Brown started her career with the Department of the Army in 1980 as a GS-1 worker-trainee. In 1988, she joined the USACE South Pacific Division as a Management Employees Relations Specialist. Eight years later, she began her current position as the Sacramento District EEO Manager.

Brown will continue performing her duties as the SPK EEO Manager while additionally assisting SPN.

She may be reached at 415-859-1696 or by email at linda.l.brown@usace.army.mil.