CORPS'PONDENT

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US Army Corps of Engineers®
Portland District

A CH46 helicopter helped install an anchor system to support a floating boom barrier behind Lookout Point Dam

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Cover photo: original photo by Graham Hilson, Willamette Valley Project. Photo illustration by John Leonard, ACE-IT.

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Commander: Col. Jose L. Aguilar
Chief, Public Affairs: Matt Rabe
Editor: Erica Jensen

Commander's Column

NWP Teammates,

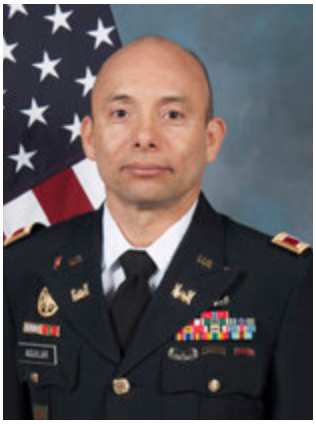
I hope this edition of your *Corps'pondent* finds you well. As I write this column I am on my way back from the Corps of Engineers' Engineer Research and Development Center. They have built many physical models of our projects and are also working on other numerical models that will help us make decisions for future investment.

Last month I traveled to the Corps of Engineers' First Quarter 2016 Executive Governance Meeting and Small Business Conference held in New Orleans – also attended by other Corps senior leaders and Portland District's small business manager, Carol McIntyre. While there, we visited the city's Hurricane Protection System, a 130-mile system of levees, walls and gates designed to defend against a 100-year storm surge (which has a one percent chance of occurring in any given year). The protection system, improved following Hurricane Katrina and funded by multiple high dollar federal investments, not only protects a beautiful and historic landmark city, but is also critical to the Mississippi River navigation system and our national economy. For more about this fascinating engineering effort, visit (*http://www.mvn.usace.army.mil/Missions/HSDRRS.aspx*.

One of the things I found most interesting about the system (besides that it is an active construction site – which no engineer I know, including myself, would ever shy away from touring) is the fact that staff from Portland District's Engineering and Construction Division and Hydroelectric Design Center were significant contributors – helping to make the newly improved protection system a reality. During the construction, we even deployed one member from EC to support this national effort (see Bob Hoffman if you have questions).

I want to take a moment to cover Portland District's decision-making process. We use two problem solving formats: the Project Management Business Process and Military Decision Making Process, also known as the PMBP and MDMP.

The reason I'm addressing this topic is because I want to highlight how important it is to clearly define the problem and the steps needed to support good decision making. This includes conducting deliberate and in-depth analysis to understand the operational environment, articulating important facts and assumptions, fully developing alternatives and establishing well-thought-out criteria.



Col. Jose L. Aguilar

Adhering to these elements is key as we attempt to tackle a challenge, accomplish a mission or seize an opportunity in support of our missions – or as we interact with one another at work or in our community. Though the step-by-step process is scientific, the art comes when we apply judgment along the way. No matter how much experience we have, we should continue to concentrate on the key elements above. We should also understand that accomplishing intent is sometimes more important than merely accomplishing a task or achieving a metric.

Your District Corporate Board just completed its annual offsite in October and has updated the District's Standing Order, which also includes refreshing our OPLAN to capture or update our District-level processes. Please take the time to review the documents at *https://intranet.usace.army.mil/nwd/nwp/sp/Pages/Annexes.aspx* and provide your feedback to help us improve our knowledge management and efficiencies.

One last thing, since I have received a few questions about my Command Philosophy. The key words in my philosophy are: Character, Competence, Commitment and Culture. I try to commit to these both personally and in the workplace. I encourage you to read about these qualities at *https://intranet.usace.army.mil/nwd/nwp/de/Documents/CMD_philosophy_aguilar_14-06-02.pdf*.

And, finally, why do I include "Competence follows Character" as part of what I say and even in my signature block? It's because I believe a person with the right character will eventually achieve competence. A competent individual without character could do more harm than good to the mission and the team. Character is our moral compass, we should all strive to do what is right – regardless of who is watching. It is not easy, but if we help each other, we can do it together.

Competence follows Character.

Col. Jose Aguilar

61st Colonel of the District

OPLAN FOCUS AREAS

People

Workload/Workforce
Action 12
Support workforce sizing, sustainability, competency and balancing activities

STEM - Action 12
Outreach to develop and maintain a diverse and competent workforce

Process

Knowledge Management/QMS
Actions 10, 16
Integrate and utilize existing data, information and resources to solve problems

Cyber Security - Action 7
Ensure full compliance with cyber security initiatives and readiness

Programs/Projects

Asset Management & Future Investments
Actions 7, 14
Implement risk-based evaluation and prioritization of infrastructure needs

Acquisition - Action 15
Improve project execution from inception through closeout, taking a multi-disciplinary approach to acquisition

Source: Appendix 15 - NWP FY16-18 Operations Plan (OPLAN) - to Annex C – Operations - to NWP OPORD 2016-01 (Portland District Standing Order)

The Military Decision making Process

Key inputs	Steps	Key outputs
• Higher headquarters' plan or order or a new mission anticipated by the commander	Step 1: Receipt of Mission	• Commander's initial guidance • Initial allocation of time
• Higher headquarters' plan or order • Higher headquarters' knowledge and intelligence products • Knowledge products from other organizations • Design concept (if developed)	Step 2: Mission Analysis	• Problem statement • Mission statement • Initial commander's intent • Initial planning guidance • Initial CCIRs and EEFIs • Updated IPB and running estimates • Assumptions
• Mission statement • Initial commander's intent, planning guidance, CCIRs and EEFIs • Updated IPB and running estimates • Assumptions	Step 3: Course of Action Development	• COA Statement and sketches • Tentative task organization • Broad concept of operations • Revised planning guidance • Updated assumptions
• Updated running estimates • Revised planning guidance • COA statements and sketches • Updated assumptions	Step 4: COA Analysis	• Refined COAs • Potential decision points • War-game results • Initial assessment measures • Updated assumptions
• Updated running estimates • Refined COAs • Evaluation criteria • War-game results • Updated assumptions	Step 5: COA Comparison	• Evaluated COAs • Recommended COAs • Updated running estimates • Updated assumptions
• Updated running estimates • Evaluated COAs • Recommended COA • Updated assumptions	Step 6: COA Approval	• Commander selected COA and any modifications • Refined commander's intent, CCIRs and EEFIs • Updated assumptions
• Commander-selected COA with any modifications • Refined commander's intent, CCIRs and EEFIs • Updated assumptions	Step 7: Orders Production	• Approved operation plan or order

CCIR: commander's critical information requirement
COA: course of action
EEFI: essential element of friendly information
IPB: intelligence preparation of the battlefield

Portland District People

Kathryn Kirkpatrick

Chief, Security and Law Enforcement

Describe your job?

Put simply, the Chief of Security and Law Enforcement is responsible for assuring optimum security of the workforce, the projects and assets of the Portland District.

What do you find most rewarding about your job?

Helping people achieve their mission and finding good security solutions that fit properly. Plus, I really like the variety and the cooperation within the office. The Security Office staff are very motivated to provide the best customer service possible to everyone in the District.

What challenges do you encounter when doing your job?

I think the biggest challenge is employees who either don't see the value of adherence to security procedures and think that we put security measures in place just to irritate them. I promise you all, the measures and procedures are in place for a good reason and we try to be as minimally restrictive as possible, while still keeping you safe and secure so you can get your mission done.

How does your job fit into our District mission? What's an example of this?

I've always described security as Mt. St. Helens ash – it covers everything. As a District Support Division office, we aim to serve by reducing vulnerability. We do this through awareness products, foreign visitor request processing, issuing CACs, keys, and access badges, submitting background investigations, providing suitability input on new hires, physical security inspections, and working with local, state, federal and tribal law enforcement as the need arises, to name a few.

Tell us about your first job:

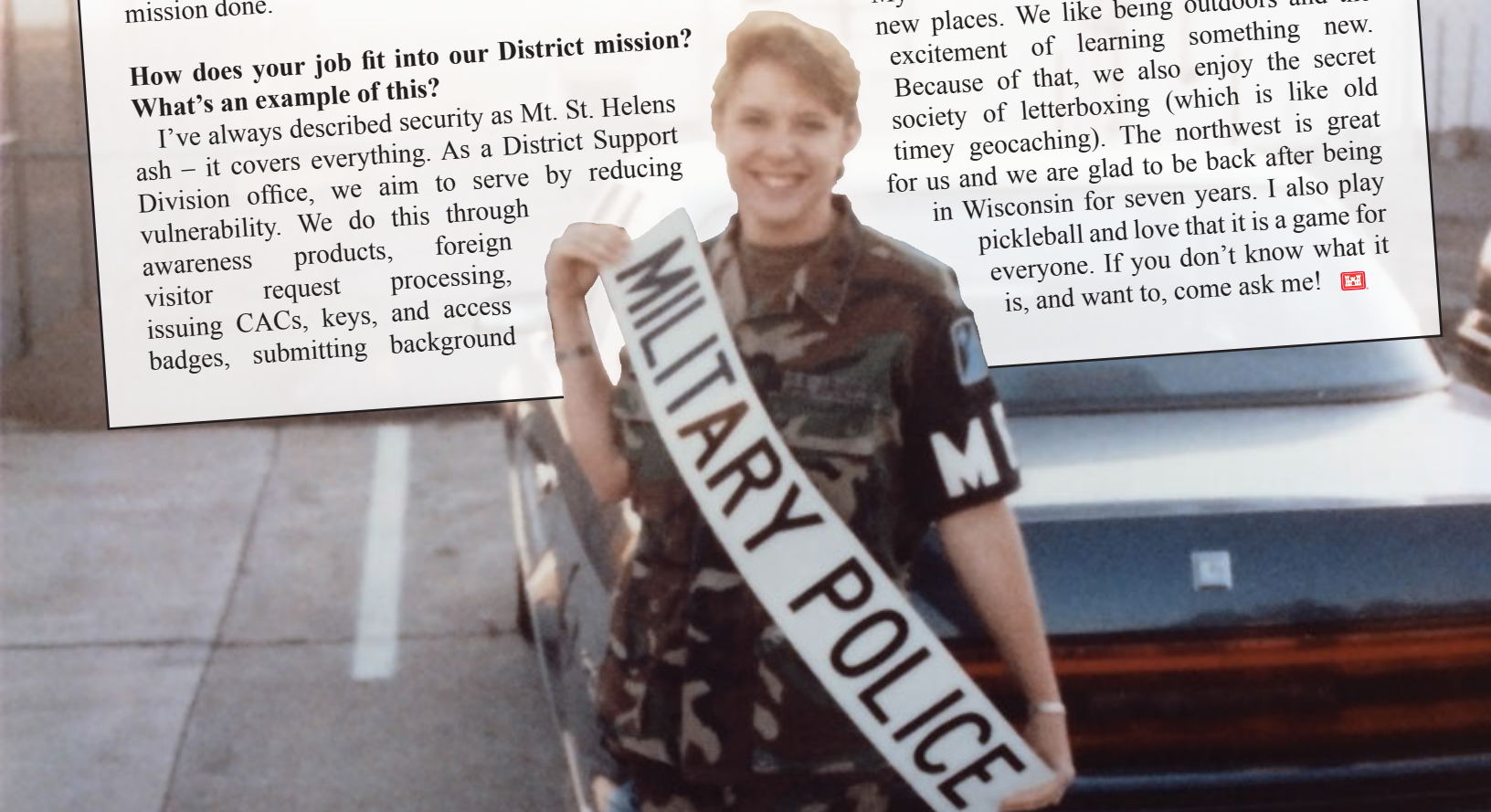
My first job was a Military Police Officer in the U.S. Army. I loved it, and after my initial tour, I was able to branch out as an Army Reservist into the Engineering field too, both of which are great background fields for security professionals.

Favorite book: Why is it your favorite?

My all-time favorite book is *The Princess Bride* by William Goldman. I like it because it is witty, action-packed, and has a perspective unlike any other book I've ever read. And, it has a first line that could rival the great classics. "This is my favorite book in all the world, though I have never read it." Who wouldn't be hooked after a line like that?

What are your hobbies? Why do you like them?

My children and I enjoy hiking and exploring new places. We like being outdoors and the excitement of learning something new. Because of that, we also enjoy the secret society of letterboxing (which is like old timey geocaching). The northwest is great for us and we are glad to be back after being in Wisconsin for seven years. I also play pickleball and love that it is a game for everyone. If you don't know what it is, and want to, come ask me!



Corps of Engineers photos

By land and by air, team starts boom installation at Lookout Point Dam

Story and photos: Graham Hilson, Willamette Valley Project and Amy Echols, Public Affairs Office

Rotor noise filled the sky around Lookout Point Dam on the Middle Fork Willamette River Nov. 3 as contractors for the U.S. Army Corps of Engineers maneuvered a giant CH46 helicopter to install parts of an anchor system to support a floating 1,400-foot boom barrier in the reservoir behind the dam.

The contractor, Always Excavating of Hubbard, Oregon, first established a landing zone boundary, removed and secured hazards that could impact ground personnel and the arriving aircraft. The crew rigged and staged two 6.5-ton anchors for lifting by the helicopter, and reviewed operational maneuvers and plans to lower the anchors into position. Safety briefs were given to all staff, including pilots, contactors and the Corps' Lookout Point Dam staff.

The helicopter powered up and moved in to position, hovering over the first anchor, where the ground crew engaged couplings to lift the anchor. It took less than a minute for the aircraft to reach the drop-off point, marked with buoys. The helicopter then lowered the anchor into the water until it reached the bottom of the reservoir, a depth of 80 feet. The anchor was released with 100 feet of rope and secured to the buoy above. The helicopter placed the second anchor 25 feet from the first. These anchors, along with two others placed the day before, were secured by hand with steel plates, 18-inch bolts and epoxy.

"This is a pretty cool project. Securing the anchors was the first step in this boom installation operation," said Erik Petersen, Operations Project Manager for the Willamette

Two 6.5-ton anchors were lowered into the waters behind Lookout Point Dam Nov. 3

Valley Project. "The second part is planned for the spring of 2016 when pool levels are high enough to float the 1,400 foot boom into place."

The boom is a heavy walled, impact resistant polyethylene barrier that will support temperature and fish passage studies at the dam by keeping logs and other debris away from the dam's spillway gates and other infrastructure. The boom also creates a distinct boundary that meets federal boating safety requirements and will help keep boaters, kayakers, fishermen and others safe while recreating near the dam.

Booms already serve eight Corps reservoirs in the Willamette Valley and have successfully protected infrastructure from debris damage during high water flows. Logs and other trash can block dam spillway gates and impede the Corps' ability to pass water through the dam or close its gates.

The Corps operates 13 dam and reservoir projects in the Willamette Basin. Each dam contributes to a water resource plan designed to provide flood risk management, power generation, irrigation, water quality improvement, fish and wildlife habitat, recreation and navigation on the Willamette River and many of its tributaries. For more information, visit http://go.usa.gov/3e5rF.

Two 6.5-ton anchors were installed on land Nov. 2 and two more were installed in the Lookout Point Dam Reservoir Nov. 3. All four will anchor 1,400 feet of boom barrier to be installed during the spring of 2016.

With 70 years of service behind it, HDC looks to the future

First in a series of articles about HDC and the vision of its senior leaders

By Diana Fredlund, Public Affairs Office

What comes to mind when you think of the Pacific Northwest? Maybe salmon, the Columbia River, or rain. What about hydropower? That clean, sustainable energy that keeps the lights on.

When talking about hydropower in the Pacific Northwest, people often refer to past events like constructing Bonneville Dam. The U.S. Army Corps of Engineers is the largest producer of hydropower in the United States. The Corps constructed its first hydropower plant in 1919; Bonneville Dam was one of three hydropower dams constructed under President Roosevelt's New Deal. Steve Miles, director of the Corps' Hydroelectric Design Center is proud of the Corps' history, but now he is looking to the future.

"Hydropower is an integral part of the Corps' mission across the Nation and it will remain a vital part of our future," Miles said. "How we got here is important, but to me, what the future holds is even more exciting."

A brief look back

When the Corps started building Bonneville Lock and Dam in 1936, it employed scores of engineers, many of whom were the foundation for today's Hydroelectric Design Center. First established in 1948 as the Hydroelectric Design Branch, the organization's mission was to design the 10 hydropower dams planned on the Columbia and Snake rivers.

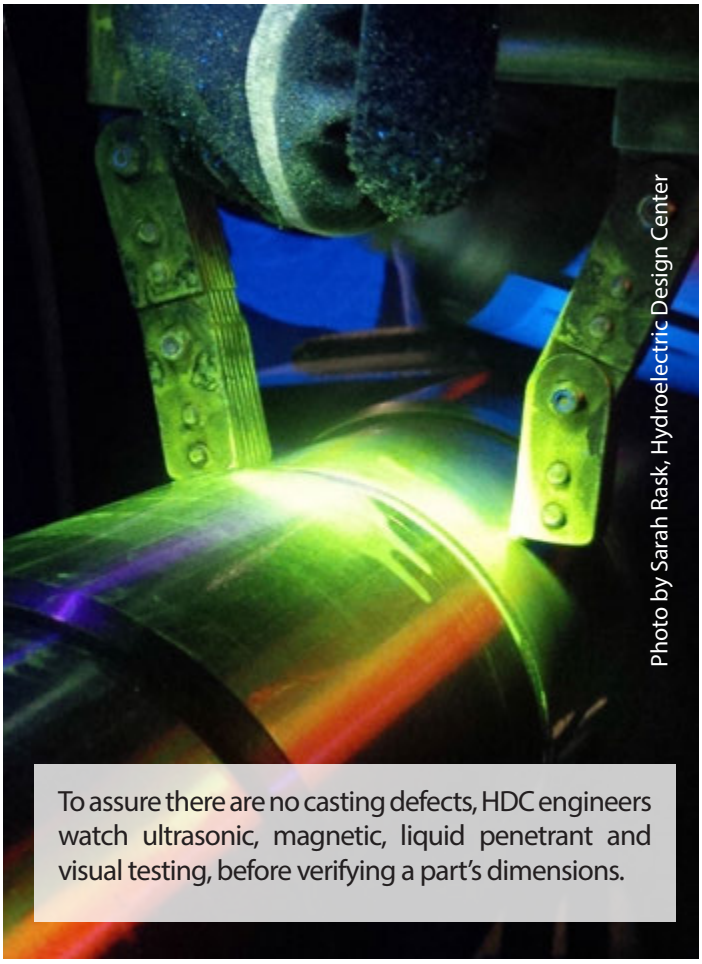
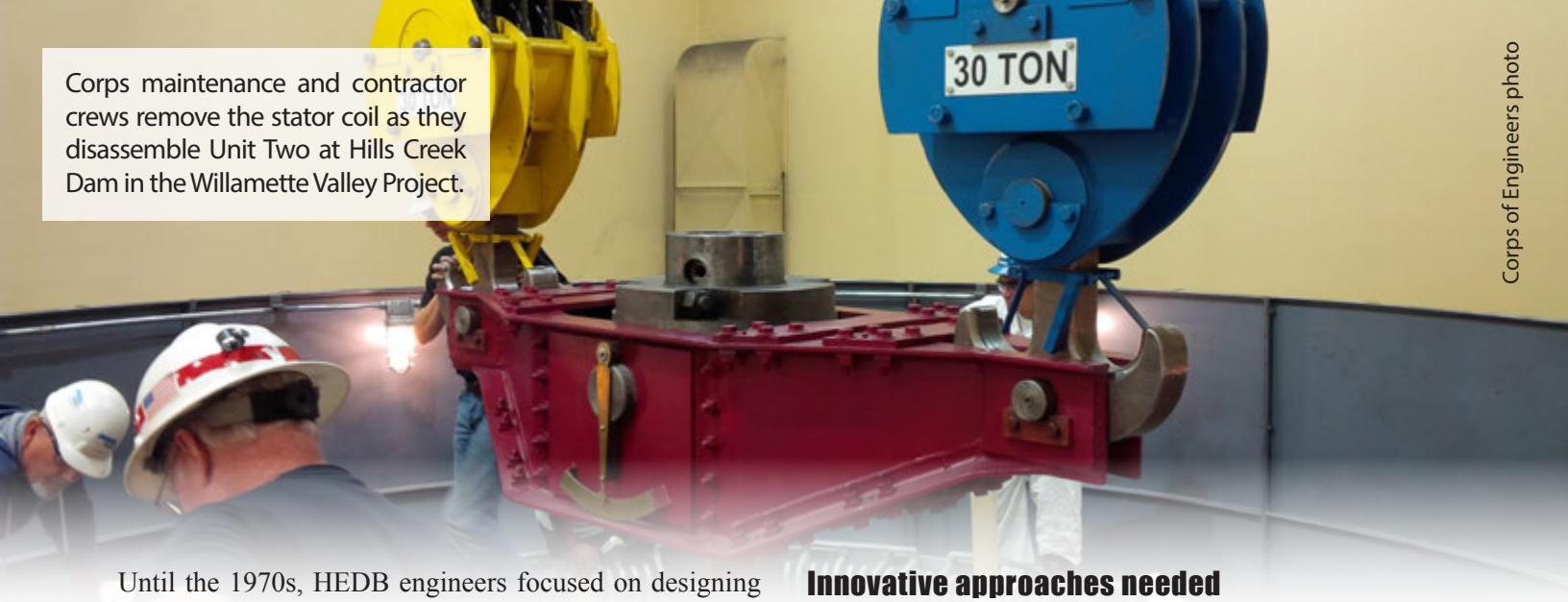


Photo by Sarah Rask, Hydroelectric Design Center

To assure there are no casting defects, HDC engineers watch ultrasonic, magnetic, liquid penetrant and visual testing, before verifying a part's dimensions.

Corps of Engineers photo



Corps maintenance and contractor crews remove the stator coil as they disassemble Unit Two at Hills Creek Dam in the Willamette Valley Project.

Corps of Engineers photo

Until the 1970s, HEDB engineers focused on designing hydropower dams capable of generating hundreds of megawatts of electricity. Once the Corps finished Walla Walla District's Lower Granite Dam in 1975 – the last dam constructed on the Columbia River – the mission shifted to operations and maintenance of existing facilities.

In 1980 the organization became the Hydroelectric Design Center and its engineers began focusing on how to operate hydropower dams in a more environmentally friendly way.

Today HDC is a Corps Center of Expertise with 165 employees – mostly engineers – that specializes in hydroelectric and large pumping plant engineering services. In order to more efficiently use its assets, the Corps began consolidating its knowledge base into centers of expertise.

"Since its inception in 1948, HDC has been on the cutting edge of innovative design," Miles said. "Our focus now is on helping hydropower dams whose turbines and generators are nearing the end of their design lives with what I call remodernizing their existing facilities. We are looking at future trends in digital, electrical and turbine engineering in order to prepare facilities for the next 50 years."

Innovative approaches needed

With most of the Corps' hydroelectric dams celebrating 50 years of service and more, HDC's dedication to remodernizing means many more years of renewable power generation for a society whose need for power continues to grow.

To continue providing innovative strategies, Richard Nelson, HDC's deputy director, looks for ways to manage the organization's workload. "One important strategy is to bundle work to minimize downtime. If a generator is being upgraded, is it possible to upgrade the turbine at the same time? Even if the unit isn't scheduled to be remodernized for a few more years, doing it at the same time could save as much as two years' downtime later."

Innovation isn't restricted to project design; Miles believes HDC excels at innovation in its organizational structure as well. "We can expand our workload capacity by adapting to fulfill each project's needs. In the past, HDC's focus was on designing and building dams; later we moved into designing operations and maintenance processes that allowed the facility to operate efficiently. Now we are helping design the next generation of turbines. They will maximize hydropower generation while minimizing impacts to fish migration."

The U.S. Army Corps of Engineers Nashville District lifts the rotor assembly from a 270-ton hydropower unit undergoing rehabilitation at the Center Hill Hydropower Plant in Lancaster, Tenn., Sept. 23, 2015

Photo by Mark Rankin, Nashville District

Corps of Engineers photo

Turbine projects can take 18 to 24 months to plan and even longer to complete, like this turbine disassembly at Portland District's Hills Creek Dam. HDC encourages its customers to develop long-range plans of 20 years or longer to help them position facilities for the future.

Direct funding streamlines repairs

An expanding workload became more likely after a direct funding agreement was signed with Bonneville Power Administration in the late 1990s. Prior to the agreement, all major repairs and maintenance were funded through Congressional appropriations and BPA reimbursed the U.S. Treasury. Under direct funding, BPA funds hydropower-related repairs and replacements without involving the Treasury, which saves time and allows for more consistent planning.

"Direct funding makes it easier to fund and schedule remodernization activities. When funding is easier, the operating projects schedule more work," Nelson said.

Direct funding has helped HDC's customers plan needed repairs, according to Mike Posovich, HDC's Product Coordination Branch chief. "One of our customers is the Nashville District, which is working with Team Cumberland, a group of public utility districts on the Cumberland River in Tennessee. They wanted to optimize their hydropower output by modernizing their dams. HDC came up with a plan based on the experience we've had with the Federal Columbia River Power System here in the Pacific Northwest that fit the needs of Nashville District's customers."

HDC engineers were able to help Nashville District engineers present the plan to their District Commander. With his support, HDC helped Nashville District design and present their findings to Team Cumberland. "We expect their final decision on the remodernization plan by the end of the year," Posovich said. "Together we were able to design a plan that addressed the needs of the utility districts for future growth."

Competency and customer care

Another factor of HDC's success is its ability to maintain competency, Miles said. "Hydroelectric engineering is a specialty, which means we encourage ongoing certifications and training for both existing and new engineers. Many people don't realize that about 50 percent of our workforce has been with HDC for less than five years," Miles said. "We reinstituted the HDC Engineer in Training program and aggressively seek talented young engineers from top-tier engineering colleges. They are tomorrow's senior leaders; to prepare them for that role we need to ensure they remain well-versed in technology, as well as understanding HDC's history and organizational culture."

Miles sees excellent customer care as not only good for their customers, but good for the organization's future. "Our projects are large, complex and costly. With tens of millions of dollars authorized for one project, our customers need to be able to track expenditures and be able to explain work to their superiors," he said. "We want HDC to be known as a source of quality technology and innovation, as a trusted advisor who can plan and execute a customer's project well."

HDC's reputation for excellence extends to all projects, whether the design work is completed in-house or by one of HDC's contracted AE firms. "We make sure our customers know that regardless of who completed the work, it is an HDC design," Nelson said. "Every product is reviewed and approved by HDC. We stand behind each design and product and it's important our customers know that."

HDC's customers include the 17 Corps districts that generate hydropower and the Bureau of Reclamation's hydropower dams.

"HDC also conducts special studies for Corps headquarters in remodernization analysis, benchmarking and innovative operations and maintenance processes," Miles said. "Combined with our support to the power marketing agencies and local public utility districts, our customer base is both varied and numerous."

Building relationships

Meeting its customers' senior leaders is vital to HDC's overall success. "Our business is based on relationships, just like many other industries," Nelson said. "Steve Miles spends at least half of his time meeting leaders and dealing with challenges – or successes – facing our customers."

Since he joined HDC as its chief in May 2013, Miles has made visits to customers and other stakeholders an important part of his job. "When I joined HDC I saw a high-performing team with an outstanding reputation. I saw their commitment to customer service and excellent engineering design. My role is to be the face of HDC for our customers' senior leaders, to help tell the story of the great engineering we do," Miles said. "I want to continue what Brent Mahan, HDC's former chief, started: I want to help our customers embrace long-term planning."

Planning the future

An HDC project often includes an 18- to 24-month planning window, but Miles wants customers to think in longer timeframes. "Our projects can be up to two years in planning, and take 10 to 15 years to complete," he said. "As we continue remodernizing these facilities, it's not too far out to have a 50 or 100 year plan. Our customers would have a better idea of their long-term needs, and it would help us help them manage their facilities effectively into the future."

For nearly 70 years HDC has been designing equipment and processes to keep Corps hydropower dams up-to-date, effective generators of electricity: first by designing the facilities, then developing effective O&M processes and now by helping design the next generation of turbines and generators that will improve efficiency and minimize environmental impacts. The next 70 years will bring new materials and technologies to hydropower generation, HDC and the Corps.

Steve Miles believes HDC will keep the Corps on the cutting edge of technology with new materials, practices and a vision of the future. "Our mission is to help our customers efficiently generate hydropower today and next year and in the coming decades. Our innovation, flexibility and our passion for customer care is what prepares us to face the challenges we'll face when designing for the future."

In the next two articles, we ask some of HDC's senior leaders the question, "What does HDC's future look like?"

Photo by Lee Roberts, Nashville District

The U.S. Army Corps of Engineers Nashville District remove the turbine runner from hydropower unit two in the power house at Center Hill Dam Oct. 7, 2015

Flood Risks: Myths vs Facts

Myth:
I'm not in the 100-year flood zone, so I won't flood.

Fact:
Fact is we all live in a flood zone. Risk doesn't stop at a line on a map. Twenty percent of flood insurance claims come from areas considered moderate to low risk for flooding. Expect the unexpected and prepare now. Learn more about preparing for an emergency.

Myth:
The government wouldn't allow development in areas at risk of floods.

Fact:
There's no law preventing development in areas that could flood. In fact, vast areas of agricultural land in historical floodplains around Oregon have been developed for residential use since 1964. The Corps works with state and local governments to use their authority and support their responsibilities in determining how to use land in floodplains and to enforce "flood-wise" requirements. Click on the Federal Emergency Management Agency's Flood Map Service Center, *https://msc.fema.gov/portal* to see where you "land" for flooding.

Myth:
The Corps oversees and manages all levees in the United States.

Fact:
Only about 10 percent of levees in the U.S. are Corps-managed structures. Still, almost 10 million people live or work behind Corps levees. We take our role in maintaining the nation's infrastructure seriously. Learn more about living behind a levee at *http://go.usa.gov/euDQ*.

Myth:
As long as I live behind a levee I'm safe from flooding.

Fact:
Levees have limits. They may reduce risk, but they don't eliminate it. Levees can be overtopped by rising waters. They can fail due to improper maintenance, erosion, seepage; even burrowing animals can damage a levee.

Myth:
A levee is the same as a dam.

Fact:
The Corps uses both dams and levees to manage flood risk, but they are very different structures. Levees help create higher boundaries than a river's or other water's natural banks and can protect a community from flood waters, up to a point. Dams are built to hold back massive amounts of water, releasing only as much as operators intend. Over the years our dams and levees have helped save lives and reduced property damage by reducing flood risks.

Myth:
If I need to know something about levees in my community, someone will tell me.

Fact:
Yes and no. Many communities have great outreach programs, but people who live and work behind levees also need to reach out and take responsibility for their own safety. Learn about those levees. Talk to your community officials and leaders about levees and emergency preparedness.

Myth:
If a levee fails the government will bail me out.

Fact:
An area must be officially declared a disaster before the federal government can provide assistance, which usually takes the form of low-interest loans that must be repaid. Just a few inches of floodwater can cause tens of thousands of dollars in damage.

Silver is the new black... and red, blue and green

Oregon Silver Jackets take on flood risks

Ryan Cahill, Hydraulic Engineer


Corps of Engineers photo

Preparing for, responding to and recovering from extreme weather is the mission of the Oregon Silver Jackets team. The team has created a culture that fosters relationships and positions Oregon communities for the best outcome when the event takes place.

There's no way to avoid the impacts of extreme weather events. In the northwest those extreme events often arrive in the form of floods. Big floods, like in 1948, 1964 and 1996.

Oregonians are resilient people who recovered from these events, learning lessons that have improved how we respond to emergencies. One of those lessons is that agencies have to work together, ideally before the next event occurs.

Enter the Oregon Silver Jackets

The U.S. Army Corps of Engineers Silver Jackets Program supports USACE participation on state-led flood risk management teams. These partnerships allow agencies to coordinate actions before, during and after a flood event.

"This team's purpose is to bring federal, state and local agencies together for a common cause: reducing disaster risk," said Lance Lindsay, Portland District's Readiness section chief. "Looking back and considering what stands out from the most successful emergency response operations, we see that healthy, pre-existing relationships among the responding agencies precede most positive outcomes."

Silver Jacket teams in 43 states and the District of Columbia are at work, ready to prepare for and respond to flood events in their communities. The Oregon team was established in 2011 as a subcommittee to the State Interagency Hazard Mitigation Team. The team addresses flooding emergencies and flood preparedness, and consists of state and federal agencies that deal with flood risk.

"We achieve better outcomes when we work together," said Karen Durham-Aguilera, Director of Contingency Operations and Office of Homeland Security, Headquarters, U. S. Army Corps of Engineers. "Working with the state Silver Jackets teams helps integrate the efforts of the Corps of Engineers with those of other flood risk management partners in support of state priorities, and helps the states leverage resources."

The Silver Jackets team prepares for emergencies by conducting periodic exercises to keep members refreshed on roles and responsibilities during floods. The team has also developed a plan to collect valuable field data immediately after floods; data that would otherwise be lost to the passage of time.

Their unusual name stems from the interagency nature of the team. Traditionally, agencies wear different colored jackets when responding to emergencies. For example, Federal Emergency Management Agency personnel wear blue, Corps personnel wear red, U.S. Geological Survey people wear green. Silver represents the union of all agencies' colors, and the name Silver Jackets is used to underscore the common mission of a single team of diverse agencies working together to reduce flood risk at the state level.

This collaboration is relatively new. Even a decade ago, many agencies were fairly isolated from each other, but this approach proved ineffective. The middle of a flood event is not a good time to meet counterparts at other agencies for the first time. Hurricane Katrina brought many of these communication issues to light in a very public way. While enhanced coordination would not have prevented all of the difficulties surrounding the response to Hurricane Katrina, having relationships in place may have helped the response and recovery proceed more smoothly. In fact, Hurricane Katrina was one of the primary drivers of starting the Silver Jackets program nationally.

Like a well-rooted plant, these interagency relationships bear fruit on an ongoing basis. For instance, when significant flooding was forecasted in northwest Oregon in December 2014, the team held a meeting to confirm the roles/responsibilities of the agencies. While the event did not materialize, the team had prepared for the event and coordinated actions. More recently, the team responded to the flooding threat posed from wildfire-scorched areas in Grant County. If the Silver Jackets did not exist, there would have been confusion about which agencies needed to be involved, and efforts may have been duplicated and inefficient. Fortunately, regular communications between the team ensured that all agencies were informed of the status and progress at once, rather than each agency coordinating one-on-one with other agencies.

While the work of the Silver Jackets team isn't highly visible, you see evidence of their work in several areas. In 2014, the team installed signs in Albany, Oregon City and Turner, showing just how high the water reached during historic floods.

The city of Mitchell, Oregon, is working on plans to install a flash flood warning system – the Silver Jacket team has been working behind the scenes to ensure this system is as effective as possible.

Technology has come a long way when it comes to tracking storms and knowing when to expect potential flood events, but it's no substitute for being prepared for an emergency. The Oregon Silver Jackets team is taking the lead to help us all prepare, respond and recover. Together.

Ryan Cahill, Portland District Silver Jackets interim coordinator, installs high water mark signs Dec. 12, 2014, at Monteith Riverpark, Albany, Oregon. The Oregon Silver Jackets team plans to post high water mark signs in other Oregon communities to build public awareness of flood risk.

The Corps' management of dams and levees efforts to minimize the impacts of high water events can make it easy to forget how devastating these floods can be. For that reason it's important that cities, counties, businesses and individuals be prepared.

Oregon Silver Jackets member agencies:

- Oregon Emergency Management
- Oregon Dept. of Land, Conservation and Development
- Oregon Dept. of Geology and Mineral Industries
- Oregon Water Resources Department
- Federal Emergency Management Agency Region X
- National Weather Service, Northwest River Forecast Center
- Natural Resources Conservation Service
- U.S. Army Corps of Engineers, Portland District
- U.S. Geological Survey

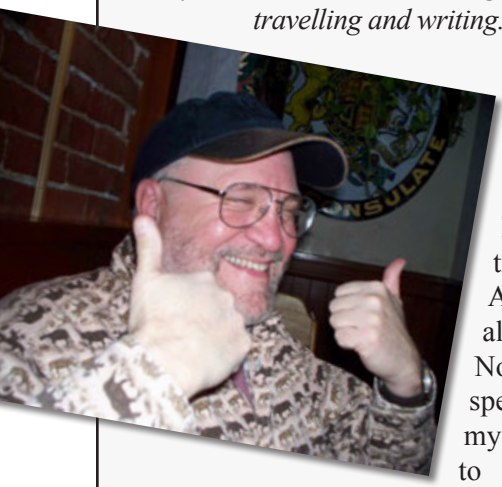
Learn more about the Oregon Silver Jackets at *http://silverjackets.nfrmp.us/State-Teams/Oregon*

Profile of a Retiree

Jim Stengle

Environmental Resource Specialist (retired)

To say Jim Stengle's retirement is an active one is an understatement. Jim retired from the Portland District three years ago and embraced his new-found freedom to indulge some of his passions and experience some of his favorite activities, including hunting, fishing, hiking, travelling and writing.



What's the best way to describe your retirement?

Active and sweet! I've done fishing trips to Baja and Alaska. I am fishing all over the Pacific Northwest for multiple species. I extended my annual hunting trip to South Dakota (my home state) each November and am continuing with my backcountry big game hunts. I reconnected after 40 years with surviving members of my old Army unit (1/319th FA, 82nd Airborne Division circa 1970-73 … Airborne! All the Way!). I'm also working on health issues, gardening, food preservation, sharing information and knowledge, and progressive politics.

Do you volunteer?

I have provided pro bono expert witness testimony for the hatchery lawsuit with the Association of Northwest Steelheaders. I belong to several conservation non-profits. I am a volunteer Certified Angling Instructor for Oregon Department of Fish and Wildlife.

Have you started a 'second career'? What inspires you or motivates you as you do your job?

I am a freelance Outdoor Writer and last year I began a paid blogger stint with Comcast SportsNet Northwest. I plan to expand my hunting/fishing interests to include nature and science writing. I have retained my credentials as a Certified Wildlife Biologist and my membership in The Wildlife Society, American Fisheries Society and the National Military Fish and Wildlife Association.

What would you say you know now about living a happy and successful life that you didn't know when you were twenty?

I chose my field because I have always been interested in nature. I always knew I would have something to do with wildlife. I did not know how that would work out and it was a struggle at times for me. I know I made the right choice and made a positive contribution to science, the environment and society.

What are some important lessons you feel you learned during your time working for the Portland District?

Team work. Communication. Flexibility. Building relationships within and outside the agency. Knowing environmental compliance was crucial to the success of a project.