

US Army Corps of Engineers ® Far East District



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US Army Corps of Engineers® Far East District

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Check out the Far East District web site at www.pof.usace.army.mil

On the cover



Obsolete vehicles are hauled away from the motor pool at the Far East District Compound of the U.S. Army Corps of Engineers early in the morning on Feb. 25, 2016. (Photo by Eric Hamilton)



Lt. Col. Timika M. Wilson

To the Far East District Team,

experience for me as a new deputy com-

mander. I have learned so much about

what a U.S. Army Corps of Engineers

district accomplishes that isn't transpar-

ent to most people. Construction, engi-

neering, planning and programming,

resource management, contracting and

stage due to their visibility, but their

efforts are staunchly supported by a

cadre of professional support staff that

ensure everything behind the scenes

runs smoothly. So I'd like to say 'thank

you' to those administrative specialists,

logistics support personnel, information

experts, security managers, safety

specialists, our internal review auditor,

equal employment opportunity office.

operations and plans officers, public af-

fairs specialists, and corporate commu-

nications specialist for their dedicated

continues to deliver engineering solu-

trict from 95 percent to 98 percent and

I think we exceeded that goal. Key to

the standard across the peninsula, in-

spiring a future generation's interest

in STEM and STEAM. Pacific Ocean

Division and Corps headquarters has

our Nation and the Alliance.

(KM) initiatives for setting the conditions to achieve level III maturity with 100 of 115 KM metrics achieved to date. With continued focus, the district will meet the milestone ahead of time. The KM team and in-processing and This past year has been a great out-processing teams transformed the district intranet into a more collaborative information sharing tool. This included a digital wiki-page new employee handbook and revising our external website to include a newcomers page (the first in USACE), ensuring we communicate expectations to new the office of counsel often take center employees. The district has begun ProjectWise adoption to streamline and maintain uniform digital repositories for technical and support staff information. These and many other programs and initiatives support the commander's vision and it is our employees that transform that vision into management teams, workforce man- tangible deliverables that move the to move forward while maintaining agement and military human resource team forward.

Over the past 10 months, I learned about the challenges of hiring personnel for overseas positions. These included: misconceptions about the Far East District, financ al concerns, fear of Five-Year-Rule enforcement efforts in ensuring the Far East District and concerns about Army reserve personnel qualifications, to just name tions in the Republic of Korea to secure a few. What struck me is the quality of the process and leadership's commit-My goal was to take Far East Dis- ment to hire the right person for the right job at the right time. During my leader talk with USACE's Leadership that effort included outreach initiatives Development Level 2 Program class with science, technology, engineering of 2016-2017, we discussed the Mark and math (STEM) volunteers, setting Lemonis philosophy triad for business success: people, processes, and product. The class expanded my view of what the people portion includes - "an educated and professionally trained noted our knowledge management workforce." I realized that the experi-

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Deputy's Corner

ences district personnel acquire during their tours cannot be replicated. These experiences, in a joint, diverse environment, makes the technical and support staff better equipped to handle any challenge. Our people have obtained Doctorates, DOD certifications, and professional licenses during their overseas tours, making them more marketable in an increasingly competitive workforce. These individual efforts prompted the command team to fill a dedicated training organizational development specialist to assist our people in meeting their personal and professional goals.

The Far East District epitomizes Katchi Kapshida - "We Go Together," with half of our personnel Korean nationals. The 2017 district headquarters and motor pool relocations will challenge us to continue working together; the high standards that set the district on a path to ensure quality and deliver on our commitments to our workforce and our customers. Whether it's volunteering to uplift unit morale, health, and welfare as a wellness advisory committee member or managing training statistics as an office training coordinator, every person contributes to the larger Far East District mission and vision. I challenge you to continue to be the best at your job at all times.

As I depart Korea for duty as deputy commander in Jacksonville District, I am excited for the Building Strong in Korea team as you continue to deliver excellence and provide world-class, high quality facilities and services across the Republic of Korea to secure our Nation and the Alliance.

Building Strong in Korea

Technology behind pile driving inspection

By Steve H. Kim FED Engineering Division

f you've had an opportunity to drive past any large construction sites at U.S. Army Garrison Humphreys, you may have wondered why there are hundreds of cylindrical shaped concrete columns sticking out of the ground. Those concrete columns you saw are called the "piles." They are used to support structures on weak soil by transferring loads to a deeper bearing strata when the soil bearing capacity isn't sufficient at the surface to withstand the structural loading. The number of piles for a structure can vary

from a one to thousands depending on the size and weight of the structure. There are many techniques of pile installation but most of the piles at Humphreys are "driven piles," which means they are installed by hammering piles into the earth.

So what's the engineering challenge here? The challenge comes from figuring out if the piles have been installed in a sound manner without defects that could impair their bearing capacity. The installation of piles must be controlled at all stages of the operation,

as there are many factors to consider for proper installation of piles. Some of the critical factors that must be monitored during the pile installation are integrity of the pile shaft, straightness, driving stresses, and impact hammer energy. Detailed description of these factors and how they affect the piles could be another topic of a separate article for the East Gate Edition!

Archeologists have determined that driven piles have been used since Neolithic times. Ancient structures from all over the world, such as the





roman aqueduct or ancient village in Wengen, Switzerland, have been discovered to be founded on piles. So, the history tells us that piles have always been utilized and there have been many attempts to find efficient, economical, and accurate ways to install piles. Today, many modern technology and tools are available to assist in ensuring adequate installation of driven piles.

The Pile Driving Analyzer (PDA) system is one of the most widely employed during pile inspections for testing and monitoring purposes. This system helps formulate driving criteria during pre-construction pile inspections to reduce the risk of pile damage during the production pile installation at the construction stage. The technology behind this system is simple yet powerful. The accelerometers and strain transducers attached to the pile obtain data during the pile driving and convert them into velocity and force readings. That is used to formulate driving criteria such as the bearing capacity. This system is employed during pile inspections on selected piles to obtain representative data which could assist in assuring compliance to the design



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and improving quality.

Piles are the starting point for the construction of a structure and provides the support for everything built above them. Therefore, proper installation of piles is essential for the start of a rigid and stable structure. With a wide range of technology and tools available today, this could be achieved in an effective and efficient manner. Geotechnical engineers at the Far East District are always on the lookout for new and upgraded technology to improve the quality of pile installation!



Motor pool mastery manifested at vehicle turn-in

By Eric M. Hamilton FED Public Affairs

ecent vehicle turn-ins at the Far East District compound at first seem no different than any other. As a testament to tight budgets and exacting regulations, the SUVs, sedans and vans being hauled off are all obsolete, a multitude of miles on each odometer.

Since the hauling off process happens in pre-dawn hours, much of what's wrong with these vehicles is obscured by the dim lighting. Even after the dawn breaks, it can be hard to gauge what, exactly, is wrong with some of these vehicles. But this process isn't secretive, and by no means unusual. The preparation for the arrival of new vehicles requires turning in the old and obsolete, common all across the Army.

The Far East District of the U.S. Army Corps of Engineers is headquartered in downtown Seoul, and so is the motor pool. Large hauling operations over roadways in Seoul have to be concluded early in the morning, so as not to conflict with commuters.

And just as every operational vehicle must undergo a Preventive Maintenance Checks and Service inspection before use, each vehicle being turned in must also undergo an extensive inspection. This is a final inspection, detailing

every mechanical and physical problem, estimating the costs of parts and repair, and verifying odometer readings as meeting the mandated limits, said Ken Pickler, Transportation Chief for the Far East District's Logistics Management Office

What is unusual is that these vehicles being turned in by the Far

Obsolete vehicles are hauled away from the motor pool at the Far East District Compound of the U.S. Army Corps of Engineers early in the morning on Feb. 25, 2016. The transport has to happen in the early morning because of restrictions on large vehicles on Seoul roads. (Photo by Eric Hamilton)



East District have been down this road before. Each of 27 vehicles being turned in by Pickler's motor pool was searched out and salvaged from the turn-in areas of other U.S. Army motor pools across the Korean peninsula, said Edward J. Minnerly, the Far East District's Chief of Logistics.

Minnerly said that reutilizing excess vehicles like this began in March 2012. Whether from other units or from the Defense Logistics Agency Distribution Reutilization program, the vehicles were obtained at no cost. These older vehicles were then put back into service and maintained with the rest of the fleet

"Those 27 vehicles represent a procurement savings to the U.S. Government of over \$185,110," Minnerly said. "The mechanics in the motor pool have gone above and beyond to maintain the district's fleet of vehicles.

"All my mechanics are great employees with phenomenal knowledge, skills, and work ethics," said Pickler. Several of the mechanics who worked on the vehicles were now the same team preparing them for turn-in. Mechanic Yim Yong-sik operated the forklift, assisted by mechanic Choe Min-kwan, to load vehicles onto the trailer. Mechanic Kwon Po-song also



assisted by ground guiding the forklift through the motor pool maintenance expenditure limits for a 14-year old vehicle, so as it loaded vehicles on the trailer. it was retired with 103,022 miles."

Pickler described three specific vehicles saved in this "Third: TMP-83, a 2006 Kia Sportage was picked up manner, summarizing the value they represented. by the district in July of 2012. We received the vehicle with "First was TMP-37, a 1997 Hyundai Galloper, picked up 129,992 miles on it. After the mechanics worked this vefrom CID in April 2007. We received the vehicle with 55,784 hicle over, it was assigned to the Family Housing Resident miles on it. After our mechanics worked the vehicle over Office. From then, the vehicle was driven with a majority completely, we assigned it to the Southern Resident Office. of its miles over virgin land with unimproved or new dirt Since then, the Galloper served faithfully and reliably for an roads. Despite the rough terrain, the Sportage operated reliadditional 32,523 miles until it was replaced. The vehicle ably for 16,741 miles until its transmission, front steering was retired at 19 years old with a total of 88,307 miles on and suspension system needed to be rebuilt. These repairs it," Pickler said. exceeded the authorized maintenance expenditure limits "Next was TMP-410, a 2006 SsangYong Rexton, picked for a 15-year old vehicle, so it was retired with 146,733 miles," Ken said. up from DRMO in June 2012. We received the vehicle with

87,275 miles on it. After the District mechanics worked the These vehicles were permanently assigned to the offi es annotated and were on extended dispatch. As a result, each vehicle over bumper-to-bumper, it was assigned to Construction Surveillance Resident Office. Since that time, the majority of of the resident offices used these vehicles on a daily basis to the miles that vehicle traveled over was virgin land with unimget to and from job sites, and over some very rough terrain. proved or new dirt roads, but still operated reliably for 15,747 Yet the work done by the Far East District motor pool team miles until the vehicle's engine and transmission needed to be ensured that the mission was met, by using innovation and rebuilt," Pickler said. "The repairs surpassed the authorized ingenuity to re-use vehicles others had discarded.



Morning came early at the Far East District motor pool, as tractor-trailers arrived just after 5 a.m. to haul obsolete vehicles to the Defense Reutilization Management Office. The obsolete vehicles were loaded by forklift, tied down and departed the compound in about an hour. (Photo by Ken Pickler)

But now these vehicles are being loaded up onto tractor-trailers contracted by the 25th Transportation Battalion. They'll be hauled to Defense Logistics Agency Disposition Services Gimcheon (also known by its old name, "DRMO") for final disposition, after which the vehicles might be sold for parts or for recycling.

Regardless of where they end up, these vehicles prove the skill and talent of the mechanics who fixed them for re-use and gave them second lives. It also demonstrates the Far East District's commitment to the principles of responsible stewardship, both of the environment and of taxpayer dollars.



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Parachute rigging facility nearing completion in Gimhae

By Stephen Satkowski FED Public Affairs

Southern resident office engineers continue to make progress as they repair and upgrade a parachute rigging facility at Gimhae Air Base, a Republic of Korea Air Force base adjacent to Gimhae International Airport on the southern tip of the peninsula. The facility will be used for inspection, maintenance, repair, packing and storage of parachutes. The building was demolished after sustaining severe damage from a typhoon in 2003.

In addition to repairing the rigging portion, district engineers will also repair damages in a deteriorating cargo storage area, repair water, electrical and sewage systems, and provide support facilities such as a fire water storage tank.

Project engineer Anthony Hambrick said the close relationship and open communications that has developed between all involved parties is crucial to maintaining progress.

"Transparent communication and cooperation between the Far East District construction team and in-house design team, Korea's Ministry of Defense (MND), user representatives and contractor personnel has been key to this project so far," Hambrick said.

Hambrick said this close cooperation and a positive attitude by all involved has been a hallmark of this project so far.

"I'm impressed with how professionally these meetings are conducted and the amount of detail that is covered



to ensure all parties understand the requirements for a particular feature of work. We are all able to communicate and give each other the benefit of the doubt on all matters, with no arguments. Also, I get to learn something new every day through regular project visits, which is a luxury I didn't have at my previous job," Hambrick said.

The location of the rigging facility on a Republic of Korea Air Force base poses its own set of challenges as well.

"Mainly on project components that will affect the installation such as the tie in of the sewer line," said

Hambrick. "These issues are resolved through understanding of the requirements from both sides and above all the support and resolution expertise provided by our MND counterparts and the user representatives for the facility."





Repair work on this parachute rigging facility at Gimhae Air Base is expected to be finished by the end of 2016. Photo is by Tony Hambrick, Southern Resident Office project enginee .

Construction on the facility began in June 2015. The Far East District did all the design work and construction is about halfway completed. The facility is expected to be completed by the end of 2016.



New Humphreys "Downtown"

Construction start: August 2014 Expected Completion Date: Late 2016

The future Humphreys "downtown" area, which includes an exchange, commissary, bowling center and chapel among its 11 buildings and parking structure, is about 94 percent finished. Completion is expected by the end of 2016.



Medical and Dental Complex

Construction start: November 2012 Expected Completion Date: Early 2019

The completed medical campus will be able to support 65,000 eligible beneficiaries and 5,000 annual inpatient admissions. Construction is about 40 percent complete.



DoDDS schools and EDIS

Construction start: June 2013 Expected Completion Date: Summer 2016

Department of Defense Dependent Schools Middle and Elementary Schools and Educational and Developmental Intervention Services facility. The middle school will support 1,100 students and elementary school 875 students. Construction is 99 percent complete.



2nd Infantry Divison Headquarters

Construction start: April 2014 Expected Completion Date: Fall 2017

The 2nd Infantry Divsion's new headquarters will include an operations center, network operations center, administrative facilities and a parade ground. Construction is 53 percent complete.

ARMY

Army projects continue to make up the bulk of the work for the Far East District and are mainly centered on U.S. Army Garrison Humphreys and U.S. Army Garrison Daegu. At Humphreys, construction on the KORCOM headquarters and the Eighth Army/ IMCOM headquarters building is nearly finished, with both 99 pe cent completed. The commissary and the main exchange are nearing completion with both 94 percent finished. The 2nd Infantry Division headquarters building is 53 percent finished with a completion date scheduled for late 2017. The building will include an operations center, network operations center, administrative facilities and parade grounds. All of these projects are part of the Yongsan Relocation Plan and Land Partnership Plan. At U.S. Army Garrison Daegu's Camp Walker, ground was broken on the new middle/high school in late

2014 and construction is proceeding rapidly as it is 66 percent completed. The school is scheduled to open to students in the summer of 2017. Construction has also begun on new family housing which is four percent complete and design work is now 100 percent complete on upgrading the installation's health clinic.

ir Force projects at the Far East District Restly are centered at Osan and Kunsan Air Bases, with operational and quality of life facilities in design and under construction. At Osan, work on the replacement elementary school is finishing up and is now 99 percent complete. Work continues on a hospital addition/alteration which is 71 percent completed

and construction work on the small arms range complex is 11 percent completed. The design work for an air freight terminal facility is 90 percent complete and the design for the Korea Air Operations Center is 15 percent completed. At Kunsan Air Base, on Korea's southwest coast, construction of a security forces facility is almost completed with 99 percent of the construction finished, while construction on a communications squadron facility is 97 percent completed. Design work at the base includes upgrading the electrical distribution system which is 15 percent completed.



Demilitarized Zone Cheorwon Haeju Kaesonge District Headquarters Gangner Northern Resident Office gdo Incheon SEOUL Wonju Suwon reonggiman Cheonan **Central Resident Office** Humphreys Area Office Andong aeion **Kunsan Resident Office** REA nO Gunsan Jeonju Daegu Southern Resident Office Ulsar Changwon Gwangju Vlasan Busan Mokpo Geoiedo eosu

U.S. Army Corps of Engineers **Far East District**



Project Update Summer 2016



MARINE CORPS

he district's Programs and Project Management Division staff is responsible for overseeing work with the Marine Corps on the peninsula. A new bulk fuel transfer pipeline to replace the existing pipeline located at the Pohang Republic of Korea Marine base is now 100 percent design completed and scheduled to be awarded in August 2016. A four hundred open bay billeting at Camp Mujuk is also 100 percent design completed. A new four-story Marine Air Ground Task Force Operations Center for the III Marine Expeditionary Force (MEF) is also in the design phase and is about 65 percent complete.

ork on the U.S. Naval Forces Korea headquarters in Busan is finished and the official ribbon cutting ceremony was held in February. Ground was broken for the facility in late summer 2013 which is housing U.S. Navy personnel who previously worked at U.S. Army Garrison Yongsan in Seoul. Also at Busan, work continues on repairing a joint rigging facility with construction 47 percent complete. At Fleet Activities Chinhae, construction on a consolidated communications facility is now 42 percent completed. Projects under design at Chinhae include an indoor training pool which is 15 percent completed and upgrading the electrical system on pier 11 which is 90 percent complete.



Korea Relocation Program U.S. Army Garrison Humphreys

Percentage of completion for the entire program Up 3 percent in the past quarter

buildings done, under construction or planned. The number of buildings being demolished is

Billion total price tag

More than 40 miles of water piping has been installed and tested in the new land. Another 40 miles of new roads will be built. Total miles of cabling in-

stalled is

New total acreage

International Airport is 103 acres smaller

Los

Angeles

flood.

1210

Original acreage

17.6million cubic meters of engineered fill already in place, raising the land by about 8 1/2 feet. High enough to keep out water from a vear

> Enough fill is in place to fill the old Yankees basball stadium about 5 times over

Training this team testifies to time, talent and tenacity

By Eric Hamilton FED Public Affairs

he mechanics of the Far East District Motor Pool have many professional certific tions and a wide range of experience with various diesel, gas and electric vehicles. That broad skill set has driven some amazing accomplishments.

It's the result of constant effort and planning.

"I grab any training that I possibly can, especially if it's local," said Ken Pickler, chief of the Far East District's Transportation Section. One such training opportunity was at the Hyundai plant in Seoul, where mechanics learned about hybrid gas-electric vehicle technologies used across the board in Hyundai's newest models.

While this approach serves the Far East District well because of the proximity to the manufacturers of much of its fleet, its mechanics have also trained in diverse locations like Taiwan and Sacramento, California. This poses a challenge since the Far East District's mechanics aren't required to be fluent in any language other than Korean. One workaround was an on-site translator provided by the Information Management section; another training administered its certification tests in Korean.

Actual training itself wasn't so complicated, Pickler said. The handson training transferred information between the master mechanics in a way that classroom training couldn't; however, hands-on demands some prerequisite experience in and aptitude for mechanical concepts.

"Point and grunt goes a long way, mechanic to mechanic... Kind of like a Chilton's manual," said Pickler. "To use a manual like that, you need at least a basic understanding of mechanics and the underlying principles. For our mechanics, the hands-on offers the most valuable kind of training."

The value of this on-going training is essential, said Kil Min-su, Automotive Mechanic Foreman, because of the constant upgrades to sensitive mechanisms and systems in new vehicles. Training is necessary in order to use new tools, use new repair techniques and to apply current maintenance methods, he said.

Kil said that getting the training can be a challenge, since not every manufacturer is willing to train groups as small as the motor pool team, while others limit training seats to just one or two people.

The latter situation, Pickler said, demands using a "train-the-trainer" approach; the one or two people trained are then experts on that topic and will lead training for the rest of the team. At other times, careful negotiation and attentiveness to schedule changes

have allowed Kil the chance to squeeze



On May 24, Far East District mechanics in Seoul furthered their professional development with training on the 2017 Hyundai Santa Fe. Ken Pickler. FED's Chief of Transportation. presented Hyundai with a certificate of appreciation for the partnership, which has provided several valuable training opportunities over the past few years. (FED file photos

in training opportunities where none existed before.

Despite the challenges, Pickler said that he remains committed to providing his team the training needed to keep their skills as master mechanics sharp and up-to-date.



Retiring reservists honored at friendship event

By Dr. Thomas J. Karnowski FED Korea Program Relocation Offic

ol. Philip A. Keller, Col. Michael D. Nyenhuis and Lt. Col. Mitchell A. DeMarais celebrated their upcoming retirements at a hosted dinner and friendship ceremony held at the W Wedding Hall in Pyeongtaek on Friday, April 22, 2016. Together, the three officers had more than 95 years of service.

The event honored the officers was more than just a spectacular meal, it was also an opportunity to share personal feelings.

Col. Keller was the acting KPRO chief and full-time Design Construction Agent when I arrived in Korea. A veritable encyclopedia of knowledge, he brought me up to speed within several weeks, while doing his duties as the DCA.

Col. Nyenhuis was the "master of the chess board," fixing what had been broken within the Land Development, Utilities and Infrastructure branch. Taking a strategic view of the program, he calmly untied the Gordian knot bit by bit: one piece of road at a time; installing small segments of utilities; moving fences; chasing seemingly tiny problems that held up untold amounts of construction; he made his mark "eating the elephant," one bite at a time.

Lt. Col. Mitch DeMarais has been our "go to guy" for training, reports, administration and awards. Our team is glued together by the friendships and working relationships that Mitch has helped build, whether in uniform or as his alter ego, the "BBQ King." When





Col. Philip A. Keller (center) poses with Col. Stephen Bales (left), commander of the Far East District, and Maj. Gen. James T. Walton, director of USFK Transformation and Restationing, at a hosted dinner and friendship ceremony April 22. (Photo by Eric Hamilton)

I needed contact while moving from Germany, Mitch provided the details that made my move possible. When new people joined our team, Mitch welcomed them and helps them to help themselves.

I want to thank each of you for all the good things that you have done for our nation over the last 30 years. You have served honorably and with distinction, but most importantly you have served. There is something special about serving others; those who don't cannot possibly conceptualize the value of what they are receiving from those

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who do serve.

The military represents a cross section of the American culture. We mirror society as a whole, but with a great exception. Regardless of our values, our politics, our economic separations, we all understand that we serve knowing that our patriotism crosses all boundaries and that there is something far greater than ourselves. It gives our lives purpose.

Winston Churchill once stated that "the Reservist is twice the citizen." Since 1908, members of the Army Reserve have taken on responsibilities greater than those required of most citizens, sacrificing weeknights, weekends and summertime leisure to learn, train and prepare for the day when their country might call upon

them in time of war or national emergency. (Twice the Citizen, a History of the United States Army Reserve, 1908-1983)



Col. Michael D. Nyenhuis (center) poses with Maj. Gen. James T. Walton, director of USFK Transformation and Restationing and Col. Stephen Bales, Far East District commander, at a hosted dinner and friendship ceremony April 22. (Photo by Eric Hamilton)



and your dedication to the greater good. You are and will remain our friends for life.

Thank you for your selfless service





Col. Stephen Bales, commander of the Far East District (left), poses with Lt. Col. DeMarais (center) and Maj. Gen. James T. Walton, director of USFK Transformation and Restationing at a hosted dinner and friendship ceremony April 22. (Photo by Eric Hamilton)

Maj. Gen. Mark W. Yenter, Deputy Commanding General for Military & International Operations, (front center), Gene Ban, Pacific Ocean Programs Director, (front, second from right), and. Col. Stephen H. Bales, Far East District Commander (front, left), pose with other members of the Far East District during a tour of the medical and dental complex construction site at U.S. Army Garrison Humphreys. Yenter's visit to the Republic of Korea allowed him to view construction progress on the Korea Relocation Program and to participate in the Eighth Army rehearsal-of-concept drill, which prepares units moving out of Seoul and areas near the Demilitarized Zone to the central hubs of Camp Humphreys and U.S. Army Garrison Daegu. (Photo by Seuk Hwan Son)



Root Cause Analysis Training

By Eric M. Hamilton FED Public Affairs

evin Fuqua, the Lean Six Sigma / Continuous Process Improvement Deployment Director at Headquarters, U.S. Army Corps of Engineers, provided training on Root Cause Analysis to the Far East District. The first day of training was to an audience comprised primarily of engineers from the Engineering Division on Tuesday, May 17, 2016.

The training began with an overview of what Root Cause Analysis does and how it works, using any one of several tools available from decades of working with process review and improvement. Fuqua outlined how Root Cause Analysis related to processes. Processes consume resources, he said, and these processes determine outcomes, success and efficiency and effectiveness. They also influence decision-making and help us understand boundaries, stakeholders and interim objectives.

"You don't get results by focusing on the results, you get results by focusing on the actions that produce the results," Fuqua said.

Fuqua gave an example of a problem solved by Root Cause Analysis. The Jefferson Memorial was experiencing accelerated damage by an excess of bird droppings when compared with other similar monuments in the same area. Initial solutions proposed addressed symptoms of the problem: cleaning methods, bird management or changing the monument itself, either by covering, moving or closing it.

Instead of immediately using one or more of these potentially drastic and

RAST GATE



Kevin Fuqua presented Root Cause Analysis Training to the Far East District from May 18-20, 2016. (Photo by Yo Kyong-il)

insects on and around the Monument.

son Monument were on longer than at

of insects there?

other similar areas.

at the Jefferson Monument?

thing that could be easily fixed

4) Why were the large numbers

a. Because lights at the Jeffer-

5) Why are the lights on longer

a. No reason. This was the root

The context Fuqua worked within

cause of the problem and was some-

costly methods of treating symptoms, Root Cause Analysis was used. The "Five Whys" approach was used to discover and remedy the underlying cause:

1) Why was the finish of the Jefferson Monument becoming degraded?

a. Because of the need to clean excessive bird droppings off of the monument.

2) Why were so many birds at the Jefferson Monument?

a. Because there were lots of spiders there, and birds came to eat the spiders.

3) Why was there so many spiders?

a. Because there were many

were common to the Corps operating environment, and he asked questions

familiar to many of those present: "What if we have a problem delivering what the customer wants? How do we deal with that? What if an audit

result, customer survey or stakeholder feedback identifies process problems? How do we respond? How do we determine whether it's an ongoing problem or an isolated incident?"

More of a philosophy that allows for use of one or more different tools, Root Cause Analysis instruction isn't a specific single approach to use for every problem or project. Instead, the focus of the training was to demonstrate how to avoid common pitfalls in problem solving.

"Do not attempt to 'Solve World Hunger'," Fuqua said, using that as a metaphor for a common scoping fla sometimes known in military circles as "mission creep." Another problem to avoid is coming at a perceived problem with a predetermined solution; this can often cause the problem to be mischaracterized. As Abraham Maslow wrote in the Psychology of Science, "I suppose it is tempting, if the only tool you have is a hammer,

One outcome Fuqua wanted participants to take from the training, despite the familiarity of some or all of the content presented, was to be able to "think differently."

How to "think differently" came up in every demonstration of the tools Fuqua showed: DMAIC (Define, Measure, Analyze, Improve, Control, Sustain); Ishikawa (Fishbone) Diagrams; Deming's PDCA (Plan, Do, Check, Act); BPR (Business Process Re-engineering); the U.S. Air Force's OODA Loop (Observe, Orient, Decide, Act); and the U.S. Army's seven-step MDMA (Military Decision-Making Process).

The goal is to improve and innovate, then implement and monitor, he said. The goal? "Remove waste and non-value added activities," Fuqua said. Key to this process is separating personalities from activities; it's not the person that's non-value-added, it's the activity or process that should be



Kevin Fuqua presented Root Cause Analysis Training to the Far East District from May 18-20, 2016. (Photo by Yo Kyong-il)

www.pof.usace.army.mil

to treat everything as if it were a nail."

the target of Lean tools and technologies, he said.

But technology isn't going to provide all of the answers; it's not a "silver bullet" for process problems, Fuqua said. "All too often, someone assumes that implementing a technology tool like SharePoint is the only thing they need to do" to fix problems, he said. Alone, no technology or tool provides all of the answers, but possibly can provide the framework for the solution.

The methodology of the Root Cause Analysis approach is meant to help ask the right questions when dealing with process evaluation, as demonstrated by the Five Whys example of the Jefferson Monument. This training emphasized how to asking the right questions leads to getting the right answers.



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Lt. Col. Timika M. Wilson 기여 극동공병단 팀 여러분, 안내 부사령관으로 일한 지난 시간들은 사이 야주 좋은 경험이었습니다. 많이 사 단은 람들이 잘 알지 못하는 미육군공병 위한 대가 이루어내고 있는 것들에 대해 화하 서 많은 것을 배웠습니다. 건설, 엔 (Property and state) 지니어링, 계획 및 프로그래밍, 재정 이름 관리, 계약 및 법무 업무등은 자주 은 2 주목을 받는데, 이러한 업무는 뒤에 이 대 서 열심히 일해 주는 직원들의 든든 한 한 지원을 받고 있습니다. 행정직원, 대로 LMO, IMO, WMO, Security, Safety, 지, 미국 전역에 국가안보와 동맹을 위 한 편 한 엔지니어링 솔루션을 제공하기위 하로 행노력하는 모든 극동공병단을 95%에서 위로 98%로 끌어 올리는 것이었는데, 그 귀, 목표는 축공 방단도에 기준을 년 대 시우는 일, 미래 세대들이 STEM 프 (ULI) 로그램에 관심을 갖게 하는 것 등이 대로 지었습니다. 태평양 사단과 공병단 사업 사령부는 지식경영 (KM: Knowledge) 해, 제지용 목료 도리에 관심을 갖게 하는 것 등이 교로 가려 관계 적 주목하고 있 다. 나더, 115개의 KM 메트릭스 중100 교로 가를 달성해 레벨 패를 달성하고자	U.S.AMY) (
극동공병단 팀 여러분, 기 주 부사령관으로 일한 지난 시간들은 사여 아주 좋은 경험이었습니다. 많이 사 단금 감들이 잘 알지 못하는 미육군공병 위함 대가 이루어내고 있는 것들에 대해 화하 서 많은 것을 배웠습니다. 건설, 엔 (Proprime) 지니어링, 계획 및 프로그래밍, 재정 이를 관리, 계약 및 법무 업무등은 자주 은 시 주목을 받는데, 이러한 업무는 뒤에 이 대 서 열심히 일해 주는 직원들의 든드 전함 한 지원을 받고 있습니다. 행정직원, 비료 LMO, IMO, WMO, Security, Safety, Internal Review, EEO, PAO 등 대한 민국 전역에 국가안보와 동맹을 위 여 감 한 엔지니어링 솔루션을 제공하기위 하고 해 노력하는 모든 극동공병단을 95%에서 위자 98%로 끌어 올리는 것이었는데, 그 귀지 목표는 측동공병단을 95%에서 위자 98%로 끌어 올리는 것이었는데, 그 귀지 목표는 초과 달성된 것 같습니다. 이 여 감 이한 노력에는 이공계 지원 프로그램 단 대 (STEM) 봉사 활동, 한반도에 기준을 년 대 세우는 일, 미래 세대들이 STEM 프 (ULI 로그램에 관심을 갖게 하는 것 등이 대호 있었습니다. 태평양 사단과 공병단 사업 사령 부는 지식경영 (KM: Knowledge 대호 제agement) 계획에 주목하고 있 다 한 나더, 115개의 KM 메트릭스 중100 교통 가를 달	Lt. Col. Timika M. Wilson	기어
	Lt. Col. Timika M. Wilson 극동공병단 팀 여러분, 부사령관으로 일한 지난 시간들은 아주 좋은 경험이었습니다. 많이 사 람들이 잘 알지 못하는 미육군공병 대가 이루어내고 있는 것들에 대해 서 많은 것을 배웠습니다. 건설, 엔 지니어링, 계획 및 프로그래밍, 재정 관리, 계약 및 법무 업무등은 자주 주목을 받는데, 이러한 업무는 뒤에 서 열심히 일해 주는 직원들의 든든 한 지원을 받고 있습니다. 행정직원, LMO, IMO, WMO, Security, Safety, Internal Review, EEO, PAO 등 대한 민국 전역에 국가안보와 동맹을 위 한 엔지니어링 솔루션을 제공하기위 해 노력하는 모든 극동공병단 직원 분들께 감사를 드립니다. 제 목표는 극동공병단을 95%에서 98%로 끌어 올리는 것이었는데, 그 목표는 초과 달성된 것 같습니다. 이 러한 노력에는 이공계 지원 프로그램 (STEM) 봉사 활동, 한반도에 기준을 세우는 일, 미래 세대들이 STEM 프 로그램에 관심을 갖게 하는 것 등이 있었습니다. 태평양 사단과 공병단 사령부는 지식경영 (KM: Knowledge Management) 계획에 주목하고 있 는데, 115개의 KM 메트릭스 중100 개를 달성해 레벨 III를 달성하고자 합니다. 지속적인 관심 속에서 공병 단은 예정보다 앞서 목표를 달성할 것입니다. 우리 KM 팀과 전입전출팀 은 공병단 인트라넷을 공동 정보 공 유 도구로 바꿔나가고 있습니다. 여	이유니ㅈ이운한ㅎ여를 〉 [을로 지리럽공, 인ㅈ거 ? ㄹ 니니호입,육 는원은더 혹이가 안이사 단위화 (P) 이은이젼바 작성 동제군가라에 는년 (U 대사람다교라직들니한들



에는 새 직원들의 기대와 소통하 위한 디지털 위키 페이지 새 직원 배서와 USACE 최초의 새 직원 페 니가 포함된 외부접속 공병단 웹 니트 개정 등이 포함됩니다. 공병 은 기술 및 사무지원 직원 정보를 한 통일된 디지털 저장소를 능률 다고 관리하기 위해 프로젝와이즈 ojectWise) 채택을 시작했습니다. 를 비롯한 다른 많은 프로그램들 사령관의 비젼을 지원하는데, 팀 더 앞으로 나갈 수 있도록 그 비 을 실재하도록 만들어 내는 것은 든 우리 직원들입니다.

난 10개월간 저는 해외에 있는 에 직원을 채용하는 것이 정말 다는 것을 많이 느꼈습니다. 극 병단에 대한 오해, 재정적인 문 5년 근무 룰에 대한 걱정, 제대 우대 자격에 대한 우려 등 여러 어려움이 있었습니다. 저를 놀 한 것은 과정의 우수함과 적시 적소에 적임자를 고용하고자 하 리더쉽의 헌신입니다. 2016-2017 JSACE의 리더쉽 개발 프로그램 DP) 레벨 2 과정 중 리더들과의 아에서 저희는 마크 레모니즈의 성공을 위한 철학의 삼축: 사 과정, 결과에 대해 토론했습니 저는 여기서 사람이라는 것은 -" ·받고 전문훈련을 받은 인력"이 · 것을 배웠습니다. 우리 공병단 들이 공병단 근무 중 경험한 것 복제할 수 없다는 것을 알았습 h. 이러한 경험들은, 공동의 다양 환경에서, 기술 및 사무지원 직원 어떤 도전이든 잘 대처할 준비

를 할 수 있도록 해 줍니다. 공병단 근무 중 박사학위나 DOD자격증, 전 문 자격증 등을 취득한 사람들은 매 우 경쟁력있는 인력이 되는 것입니 다. 이러한 개인의 노력들은 사령부 를 자극해 직원들이 개인적인 또는 직업적인 목적을 달성할 수 있게 지 원해주는 교육 개발 전문가를 고용 하게 했습니다.

극동공병단은 직원의 절반이 한 국인으로 "같이 갑시다"의 좋은 보 기가 되고 있습니다. 2017년에 있을 공병단의 이전은 우리가 계속 같이 일하는데 있어; 우리 공병단이 우리 직원과 고객들에게 최상의 서비스 를 제공하면서 앞으로 나아가는데 있어 큰 도전이 될 것입니다. 조직 의 사기, 건강, 복지 향상을 위한 자 문위원회 위원으로 활동을 한다거 나, 교육 코디네이터로 교육 통계를 관리하는 일을 한다거나, 우리 모두 는 넒은 의미에서 공병단의 미션과 비젼을 위해 기여하는 것입니다. 저 는 여러분이 항상 여러분의 일을 하 는데 있어서 최고가 되도록 도전하 시기를 바랍니다.

잭슨빌 공병단에서 부사령관으로 일하기 위해 한국을 떠나면서, 저는 우리 극동공병단 팀들이 국가안보와 동맹을 위해 대한민국 전역에 세계적 수준의 최상의 시설과 서비스를 계 속 제공해 나갈 것이라고 믿습니다.

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FED HO Northern Resident Office

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Kunsan Resident Offic

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