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## Building a strong foundation

By Stephen Satkowski
FED Public Affairs

building is only as strong as its foundation.

"Before you build on the surface you have to look below it," said Tu Nguyen, chief of the Far East District's geotechnical section.

District geotechnical engineers look beneath the earth's surface and test the soil. These tests determine if the soil is strong and stiff enough to build upon or whether additional foundational support is required. Nguyen said they do this work to make sure the final product is safe.

"We mitigate risk. Without an adequate geotechnical program you introduce a lot of risk into a product." Nguyen said. "Without knowing what's out there you can over design or under design. Over designing will cost you more money, manpower and adds additional risk, under designing can mean structural failures."

Geotechnical engineers are often tasked with the responsibility of recommending the proper foundation solution for a building. The strength of the soil is determined by something called a standard penetration test.

"We drill down and sample at certain depths to find out what's there. We perform tests in the ground as well as run tests on samples we unearth. Certain soils behave a certain way," said Nguyen. "You drive a pipe 12 inches into the ground. If it takes 30 blows of the hammer, as opposed to five, then it means you have better soil and a stronger foundation."

Two drill rigs operated by two drill crews conduct their subsurface investigations. Couple this with their materials testing laboratory – one of six district laboratories validated by the U.S. Army Corps of Engineers materials testing center in Vicksburg, Miss. – and it al-

lows them to expertly characterize a site and recommend the proper foundation for a building. The soil profiles are used by design engineers to improve their design and construct a better project.

"Without the critical work of the geotechnical branch the district's mission could not be done," said Son Ha, design branch chief.

Without a proper design, said Ha, roads would fail prematurely and the buildings can actually sink into the ground, rendering them useless.



From left to right, Chang Ho-chung, Ku Chon-wan, and Yim Tok-nung of the exploration unit, geotechnical section, geotechnical and environmental engineering branch drill a borehole to test soil for the hardened aircraft shelters on Kunsan Air Base, Republic of Korea. (Photo by Pak Chung-su)

## STEM Shadow Day at the Far East District

By Emily Turner

Seoul American High School Senior

Malone, a physics teacher, I was able to meet engineers at the U.S. Army Corps of Engineers Far East District. Doug Bliss introduced the jobs of engineers on the Korean peninsula. He talked about the work the engineers were doing down at U.S. Army Garrison Humphreys to get ready for the transfer from Yongsan to Humphreys.

The engineers have to figure out how to make the ground stable for huge buildings because the ground was originally rice paddies. Rice paddies have wet ground and make it easy for large buildings to sink into the ground. The engineers have been able to find a way to make the ground stable enough to build upon.

Next, I met with Mark White, an environmental engineer. White introduced me to all the staff in the environmental section. I met lab analysts, engineers, and other workers. White then did a PowerPoint presentation on environmental engineering in general. This presentation helped me realize some things that I may want to do in my

future to help the environment.

He then did a presentation on specific environmentally orientated projects that the district employees are doing. He explained that the district was trying to extract fuel that had leaked into the ground.

After the presentations, I went to lunch where I met Son-chu Chon, a chemist. Chon showed me the lab. One of the labs that she showed me was specifically used to study materials that contained asbestos. I got to look through a microscope and see the asbestos particles close up.

Next, I got to perform a lab that tested for contaminated soil. I learned how to do both the lab test version and the field test version. The field test version is a simple operation that isn't very accurate, but it gives you quick results about the soil contamination.

The lab test accurately shows type of fuel is in the soil by comparing the graph you get with a standard graph on the certain types of fuels. This method, though, can take a while to produce the results. The lab usually asks for two weeks to process

a sample. After the lab, I was led to another presentation.

The last presentation was done by Song-u Chon.

He showed me the different techniques the district has for remediation. Remediation is the removal of pollution or contamination from the environment. The different techniques are bioslurping, chemical oxidation, stabilization of heavy metal, landfarming, biopile, and thermal desorption. These techniques are used in Korea to remove toxins from the ground.

Over the course of one day, I learned a lot about environmental engineering. I learned about environmental engineering field and what the field includes. I learned about how the engineers are helping here on the Korean peninsula.

I was introduced to the labs used to find toxins in samples. I performed a simple lab to discover if the soil was contaminated. I discovered the different ways to rid contaminated soil of toxins. The day was full of new things, and I am excited for future visits!



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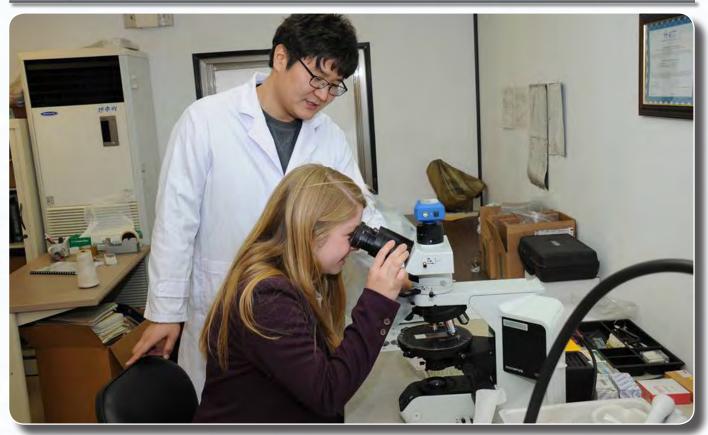
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Check out the Far East District web site at

www.pof.usace.army.mil



(Related story is on page 2.) Emily Turner, a senior at Seoul American High School, looks through a microscope as Kim Kyon-ho, U.S. Army Corps of Engineers Far East District environmental branch chemist, explains how to identify the cancer causing mineral asbestos. Turner visited the district's geotechnical and environmental branch Dec. 17 as part of a student shadow day supporting the science, technology, engineering and mathematics initiative, better known as STEM. In March the district and the Department of Defense Schools Korea District signed an education partnership agreement at Seoul American High School. (Photo by Stephen Satkowski)

# F-16 Fighting Falcon training simulator opens at Kunsan Air Base



U.S. Army Corps of Engineers Far East District Chief of Construction Sam Adkins (far right) and leadership from the 8th Fighter Wing cut the ribbon opening the F-16 Fighting Falcon training simulator at Kunsan Air Base, Dec. 12. The training center provides realistic, cost-effective training scenarios according to Donny Davidson, the district's deputy chief of construction. This replaces a facility built in 1972 that was not large enough to support the four new simulators. The new facility is about 60 percent larger and provides capacities not available elsewhere on the peninsula. (Photo by Senior Airman Armando A. Schwier-Morales)

# Far East District celebrates holidays!













## This month in FED History

# State of the art Child Development Center opens at USAG Humphreys





U.S. Army Garrison Humphreys commander Col. John E. Dumoulin, U.S. Army Corps of Engineers Far East District commander Col. Clarence Turner, community members, friends and contractors officially opened the Bang Jeong Hwan Child Development Center, Jan. 23. Named after the founder of Korean Children's Day holiday, the center has a 303-child capacity and features media, music and play areas, rooms for small and large group activities, sheltered outdoor activity space, a play ground, fire protection, alarm and security systems. The CDC cost approximately \$8 million to build. Small Enterprise Co. Ltd. was the prime contractor for the center. (Photo by Bob McElroy)

## What is suicide?

#### By Jocelynn Reyes-LaShier

U.S. Army Garrison Yongsan Suicide Prevention Program Manager

own life. It is frequently connected with a severe crisis that does not go away, that may worsen over time, or that may become visibly hopeless. Friends or loved ones in suicidal behavior may show indicators that show that they are at risk of attempting or completing suicide.

Here are five common misconceptions about suicide.

#### People who talk about suicide won't really do it.

This is false. Almost everyone who completes or attempts suicide has given some clue or warning. Suicidal statements or actions should never be ignored. No matter how casually or jokingly said, statements like "You'll be sorry when I'm dead," or "I can't see any way out" may indicate serious suicidal thoughts.

#### Anyone who tries to kill him/herself must be crazy.

**This is false.** Most suicidal people are not psychotic or crazy. They may be upset, grief-stricken, depressed or desperate, but extreme distress and emotional pain are not necessarily signs of severe mental illness or craziness.

### If a person is determined to kill him/herself, nothing is going to stop him/her.

This is false. Even the most severely miserable person has mixed feelings about death, indecisive until the very last moment between wanting to live and wanting to die. Most suicidal people do not want death; they want the pain to stop. The urge to end it all, however overpowering, does not last forever.

### People who commit suicide are people who were unwilling to seek help.

**This is false.** Studies of suicide victims have shown that more than half had sought medical help within six months before their deaths.

#### Talking about suicide may give someone the idea.

This is false. You don't give a suicidal person morbid ideas by talking about suicide. The opposite is true — bringing up the subject of suicide and discussing it openly is one of the most helpful things you can do.

#### What should I do if a friend or loved one mentions suicide?

First, take seriously all suicide threats and all suicide attempts. If you think a person is having suicidal thoughts, get more information. Remember, asking questions will not

increase the person's suicidal thoughts. It will give you information that indicates how strongly the person has thought about killing himself or herself.

#### If someone I know mentions suicide, what should I ask?

- "Are you thinking about killing yourself?" (Ask directly if he/she is having suicidal thoughts/ ideas.)
- "Have you ever tried to hurt yourself before?" (A past history of suicide attempts is one of the strongest risk factors for death by suicide.)
- "Do you think you might try to hurt yourself today?" (Is the thought fleeting, or does the person have a clear plan and intent to commit self-harm imminently?)
- "Have you thought about ways that you might hurt yourself?" "Do you have pills/weapons in the house?" (Find out about the availability of lethal means to carry out the act.)

#### Is there an easy way to remember suicide's "red flags"?

Yes. The American Association of Suicidology came up with an acronym that should help with remembering the "red flags." Learn the IS PATH WARM memory aid:

I DEATION – threatened or communicated

S UBSTANCE ABUSE – excessive or increased

**P** URPOSELESS – no reason for living

A NXIETY – agitation/insomnia

TRAPPED – feeling there is no way out

**H**OPELESSNESS – believing that the situation will not improve

WITHDRAWING – from friends, family, society

A NGER (UNCONTROLLED) - rage, seeking revenge

**R** ECKLESSNESS – risky acts, unthinking

*M* OOD CHANGES (DRAMATIC) – depression followed by calm or happiness

#### Is there anything else I should do?

Yes, be sure to take action.

- If you think the person might harm himself or herself, do not leave the person alone.
  - Say, "I'm going to get you some help."
- Call the Korea-wide Suicide Crisis Intervention Lifeline at DSN 118 and/or Commercial/Cell phone: 0808-555-118. This resource is at no cost to the caller, 24-hour hotline available to anyone in suicidal crisis or emotional distress.



### Building Safety Strong ARMY SAFE IS ARMY STRONG



You've heard it all...



You've seen it all...

You've read it all...



... but without actually "practicing" safety... it's just another great idea!





"Practice"
good occupational safety and
everyone wins!

Michael Potts, Construction Division wins the first prize of 2013 U.S. Army Corps of Engineers Far East District
Safety Slogan Contest.



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## **UNION SPOTLIGHT**

#### **Korean New Year**

orean new year (Seolnal) is the first day of the lunar calendar and is the Korean version of the East Asian new year. It is the most important of the traditional Korean holidays with periods of celebrations starting on New Year's Day. The holiday lasts three days, and is considered a more important holiday than the solar New Year's Day observed Jan. 1 following the Gregorian calendar. The term "Seolnal" generally refers to lunar new year - also known as Gujeong. Less frequently, "Seolnal" can refer to solar new year - also known as Sinjeong.

Korean new year generally falls on the day of the second new moon after winter solstice, unless there is a very rare intercalary eleventh or twelfth month in the lead-up to the new year. In such a case, the new year falls on the day of the third new moon after the solstice; the next occurrence of this will be in 2033. This year, lunar new year falls on Jan. 31.

Custom: Korean new year is typically a family holiday. It is used by many to return to their hometowns to visit parents and relatives and perform an ancestral ritual called charye in Korean. Many Koreans dress up in colorful traditional Korean clothing called hanbok. In present day Korea, small families tend to become less formal and wear other formal clothing instead of hanbok.

Sebae: Sebae is a traditionally observed activity on Seolnal, and is filial piety oriented. Children wish their elders (grandparents, aunts and uncles, parents) a happy new year by performing one deep traditional bow (rites with more than one bow involved are usually for the deceased) and the words "sehae bok mani badeuseyo" which translates to "have a blessed new year." Parents typically reward this gesture by giving their children new year's money, or "pocket money," (usually in the form of crisp paper money) in luck bags made with

beautiful silk design and offering words of wisdom. In the past, parents gave rice cakes and fruit to their children instead. Before and during the bowing ceremony, children wear hanboks as a respectful way to appreciate ancestors and elders.

Folk games: Many traditional games are associated with the Korean new year. The traditional family board game "yootnori" is still a popular game, especially during Korean new year. It is played using different types of specially designed sticks. Traditionally, men and boys would fly rectangle kites called "yeon" and play jeki, a game where a light object is wrapped in paper or cloth and then kicked in the air.

Korean women and girls would have traditionally played neolttwigi, a game of jumping on a seesaw and gongki, a game played with five little migs, originally a little stone, but today many buy manufactured in shops.

### 한국의 설날

력 달력의 첫 번째 날 인 설날은 한국 명절 중 가장 중요한 날이 다. 설날은 총 3일의 공휴일로 지정되 어있으며 한국에서는 양력 1월 1일보 다 중요한 명절이다. 흔히 설날이 의미 하는 것은 음력 설날 또는 구정이다.

풍습: 설날은 가족들과 함께 하는 명절이다. 3일의 공휴일동안 대체적으로 고향에 돌아가 부모님과 친척들을 찾아뵙고 함께 차례를 지낸다. 설날 화려하고 전통복인 한복을 차려입는 사람들도 많지만 가족 수가 적은 요즘은 한복보다는 편안한 차림 또는 정장을 입는 경우가 많다.

세배: 설에는 전통적으로 세배를 하며 이 전통은 효를 상징하며 시작되 었다. 세배는 웃어른 (할아버지, 할머 니, 이모, 삼촌, 부모님)에게 "새해 복 많이 받으세요"라는 인사와 함께 큰 절을 한 번 올리는 것이다. (참고로 돌 아가신 분께는 여러번 절을 올린다.) 세배를 받은 웃어른들은 답례로 세뱃 돈이나 용돈을 복주머니에 담아 주며 덕담을 해준다. 과거에는 답례로 부모 님이 떡이나 과일을 자녀들에게 주었 다고 한다. 전통놀이: 많은 전통 놀이들이 설과 관련이 있다. 가족 전통 놀이인 윷놀이는 설날의 대표적인 전통 놀이이다. 특수 제작된 나무를 이용하여 하는 놀이인데, 남성 혹은 남자아이들이 즐겨하는 놀이로는 사각형 모양의 연을날리는 연날리기, 가벼운 물건을 종이또는 천에 감싼 후 발을 이용하여 차는 제기차기 등이 있다. 여성 또는 여자아이들이 하는 놀이로는 판자 위를 시소타듯이 뛰는 널뛰기, 공기돌 다섯 개로 하는 공기놀이 (원래는 작은 돌들을 사용해서 했지만 지금은 공장에서만든 공기를 사용한다)가 있다.





Donald Needham Construction Came from Baltimore District



Stephanie Hall Korean Programs Relocation Came from New Orleans, La.



Timothy Whitfield Construction Came from Texarkana, Texas



Staff Sgt. Diomedes Tuazon Workforce Management Came from West St. Paul, Minn.



Capt. Robert Webb Construction Came from Cheyenne, Wyo.





Allen Chin Engineering Retired



Donny Davidson Construction Moved to Memphis District



Mario Heyliger Korea Programs Relocation Moved to Albuquerque District



Yeong Chai Engineering Moved to Fort Drum, NY.

## In memory of Chris Cormier...

Christopher Paul Cormier died unexpectedly at his homeaway-from home in Pyeongtaek, South Korea, shortly after the New Year. He is survived by his parents, Julia and John Leroux and Paul and Shirley Cormier, his brother, Andrew Cormier, and a seemingly endless assortment of relatives and friends who will miss his acerbic wit, keen intellect and warm hugs.

Chris was born in upstate New York on June 24, 1983, and grew up surrounded by his large extended family.

Chris attended Clarkson University in Potsdam, New York, graduating with honors with a Bachelor of Science degree in mechanical engineering in 2005. He also attended Pennsylvania State University, graduating with a Master of Science degree in mechanical engineering in 2007. After graduation, Chris worked as a research assistant for Penn State, followed by working as a research and development assistant for an engineering, research and consulting firm. In 2010, Chris was hired by the Far East District, U.S. Army Corps of Engineers, as an engineer and project manager.

Chris was a valued member of the District and will be missed by all.

I had the pleasure of getting to know Chris in and outside of work. One thing I know for sure is that Chris was always a team player whatever the situation. He was one of the original players that help us start up the FED Block Builders Softball Team at USAG Humphreys. He always thought about the bigger picture which was the team and not himself. Whatever I needed Chris to do on the softball field he would go do it without any discussion. Chris was a great teammate, coworker and friend.

-Adrian Devillasee-

Chris was forward thinking, innovative and motivated to do the hard good things for others. He was more intelligent than most I have met at his age. He always followed up with everything he did...with a grin I might add, that most of the time he would hold others accountable for not following up, myself included. I enjoyed my time with Chris, which was daily most of the time. He always challenged me to think in new and innovative ways to support with Knowledge Management and with SharePoint.

-Rick Norris-

Chris always had the ability to own whatever project he worked on and follow it on to completion. He really never saw road blocks: he pushed through whatever the situation. If you were the lead on the project it didn't matter, if you were a supervisor it didn't matter, if you were the chief it didn't matter, heck if you were the commander it didn't matter, he would get people to give him whatever he needed for his project to move forward. It was always fun to see what he would say or who or what document he would quote to get it. Chris was a part of some of my fondest memories in Korea. We were interns together and that developed a bond between us that was different than many others I have had in Korea. We went through shared experiences ranging from the epic KPRO get togethers held over at Curt's house, to becoming master sensei's in tackwondo, to getting in mischief at Hongdae, to our talks about future goals and aspirations. These experiences will forever be part of my memories. Chris you will be missed. Rest in peace.

-Vincent Pecchia-

EAST GATE EDITION

# The signs are all around. It's up to YOU to recognize and act on them. know the Training, Discipline and Standards Training, discipline and standards are the bedrock of our Army, and as Soldiers, you've been taught what right looks like. As leaders, you have a duty and a responsibility to maintain standards in your formation. You also have an obligation to your Soldiers and their families to manage risk and take action to correct problems. In our fight against accidental fatalities, knowledge is the weapon of choice. https://safety.army.mil