

CAREERS

Leading by Example

Col. Jason Kelly, Dr. Jane McKee Smith inspire next generation of USACE achievers

By Matt Alderton

THE U.S. ARMY CORPS of Engineers is revered for its engineering expertise. Those who know it best, however, know that USACE builds more than bridges, levees, dams and dikes. It also successfully builds future leaders whose achievements leave indelible marks on the Corps and the communities it serves.

Of course, building leaders requires a different tool set than engineering infrastructure. Instead of calipers and cranes, it requires mentors and mavens — people like Col. Jason Kelly and Dr. Jane McKee Smith, whose distinguished careers have given them a platform to shape a new generation of thinkers and builders who promise to channel their skills and service toward solving America's most pressing engineering challenges.



R. CHRIS JONES/USACE EASTERN REGION

**COL. JASON KELLY:
DRIVEN TO SERVE**

It's often said that strong leaders are "driven" to succeed. In the case of Col. Jason Kelly, that's true in more ways than one. That's because Kelly was born and raised in Flint, Mich. — known as "Vehicle City" because of its deep transportation-industry roots.

"When I was in middle and high school, General Motors had a collaborative program with the Flint public school system where inner-city kids were exposed to the science that underpinned the Vehicle City," said Kelly, who in 2018 became commander of USACE's Transatlantic Afghanistan District, which supports U.S. efforts to build infrastructure in Afghanistan. "That program helped me see that you could make a living as an engineer."

Kelly subsequently studied mathematics at U.S. Military Academy, from which he graduated in 1994, commencing his Army career as an engineer officer. After more than 20 years embedded with troops as a combat engineer — most recently as commander of the 20th Engineer Battalion at Fort Hood, Texas — he was selected to command the USACE Norfolk District in Virginia from July 2015 through June 2018.

During his three-year tenure, he managed construction projects at Arlington National Cemetery, directed research projects on sea-level rise and flooding, and oversaw channel-deepening work in Norfolk Harbor.

Most importantly, he promoted science, technology, engineering and math (STEM) education to Virginia youth.

"I got into STEM because of what I experienced as a child as a result of the partnership between General Motors and Flint public schools," Kelly said. "During my time at Norfolk, I wanted the district to play for others the role that General Motors played for me all those years ago in Flint."

Among the groups that USACE engaged during Kelly's tenure were secondary schools, historically black colleges and universities and even Girl Scout troops. "We opened the district's doors to many folks who may not have known what is possible with a STEM degree," said Kelly, whose outreach in Norfolk earned him the 2019 Career Achievement Black Engineer of the Year Award, presented by the publisher of *U.S. Black Engineer & Information Technology* magazine. "Anywhere we could go to spread the gospel of STEM in the Army Corps of Engineers, we went."

Eventually, he hopes his message will yield positive outcomes not only for the young people who heard it, but also for the country on behalf of which he delivered it. "The more we expose, the more we excite, the more we encourage," he said, "the easier it will be for us to acquire young talent and the better our chance of continuing to deliver for the nation."

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DR. JANE MCKEE SMITH:
MAKING WAVES

Dr. Jane McKee Smith spent most of her youth in Bloomington, Minn. — more than 1,000 miles from the nearest coast. Coastal engineering seemed an unlikely career path.

“I was not looking for a career in coastal engineering,” said Smith, a senior research scientist at the Coastal and Hydraulics Laboratory of the U.S. Army Engineer Research and Development Center (ERDC) in Vicksburg, Miss. “It just kind of fell in my lap.”

Smith spent her childhood visiting USACE-operated dams and lakes with her father, an engineering enthusiast whose contagious interests convinced her that she wanted to be a structural engineer. From there, it was only a short leap to coastal engineering, which she made with the help of a beloved professor who introduced her to hydrology and hydraulics when she was an undergraduate at South Dakota State University.

“Hydraulics, I found, wasn’t as ‘cookbook-y’ as some other types of engineering,” she said. “It’s much less structured and a bit more research-driven. I found it really intriguing.”

So much so that she has spent the last 36 years executing coastal engineering projects at the ERDC, where her specialty is coastal hydrodynamics — the study of ocean waves.

“One of the biggest challenges I had was post-Hurricane Katrina,” Smith said. “Our job was

evaluating the waves and the water level of the storm surge that occurred; we provided all the information that was used to determine what happened during the storm and to help design a new coastal protection system in New Orleans and on the Mississippi Gulf Coast.”

That work is one of many reasons her peers recently elected Smith to the prestigious National Academy of Engineering (NAE), a nonprofit providing engineering leadership in service to the nation. “The projects we work on strengthen national security, invigorate the economy and help reduce the risk from natural disasters,” Smith said. “We really are serving the nation.”

Smith — the first woman from USACE to receive the honor — plans to use her NAE membership as a platform for evangelizing engineering excellence both inside and outside the Corps.

“(NAE membership) will help me get the ERDC’s and the Corps’ message out to a broader audience so we can attract A-list talent,” she said. “Also, I hope it will be motivational for folks already working in the Corps; the National Academy of Engineering typically is thought of as being for academics, so I think it’s beneficial for the next generation of engineers to see that kind of recognition bestowed on folks who do the work we do.”



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Smith, at left, taking field measurements in Duck, N.C., in 1990 and teaching elementary school students about wave activity in 2014.