Army captain finds overlap between systems and military approaches to problem solving

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For U.S. Army Captain Stephen McCarthy, relocating to Ithaca has been a homecoming of sorts.

By Olivia M. Hall

For Stephen McCarthy, relocating to Ithaca has been a homecoming of sorts. After graduating from West Point in 2009 with a major in engineering management, the Auburn, N.Y. native has spent the past

eight years moving across the country and through the ranks to become a captain in the United States Army. Now McCarthy is working to earn an M.Eng. in Systems Engineering (SE) at Cornell. “It’s good to get the academic brain muscle going again with a different set of challenges,” he said.

Life on campus indeed offers a marked change of pace from Bagram Airfield, where McCarthy most recently served as the Coalition Task Force Protection Officer during his third deployment to Afghanistan. He first joined the armed forces to follow in the footsteps of his grandfather and older brother Joseph—an ambition solidified by the World Trade Center attacks in 2001: “The biggest thing that made me want to join the military—and this might be cliché—was September 11,” he said. “I was a sophomore in a high school near downtown Manhattan at the time.”

Attracted to a sense of camaraderie and bonding in a cohesive unit of soldiers, McCarthy found the best fit in the Army. And so his leadership path has taken him through basic officer training and a captain's career course at Fort Benning, Ga.—with a stint as a platoon leader and company executive officer at Fort Drum, N.Y.—to command of two companies at Fort Bliss, Texas, and finally to Cornell.

"Steve has a lot of hands-on experience in complicated military, human-dependent systems," said Al George, Director of Graduate Studies for Systems, as well as McCarthy's advisor. "This background prepared him well to understand and work with the wide range of complex societal problems we deal with in our systems program."

For example, because of McCarthy's previous responsibility at Bagram Airfield for the security and synchronization of assets such as fire, police, and emergency services for exercises or real-world events, an M.Eng. project on Tompkins County's Emergency Medical Services (EMS) immediately caught his eye. Together with other systems and Institute for Public Affairs (CIPA) students, he has been applying an SE lens to help address fiscal, personnel, equipment, and other challenges faced by the program.

While the technical aspects of his job have not had immediate application in the project—he expects that they will be most relevant when the team examines mass casualty events—he finds much overlap between the systems and military approaches to problem-solving.

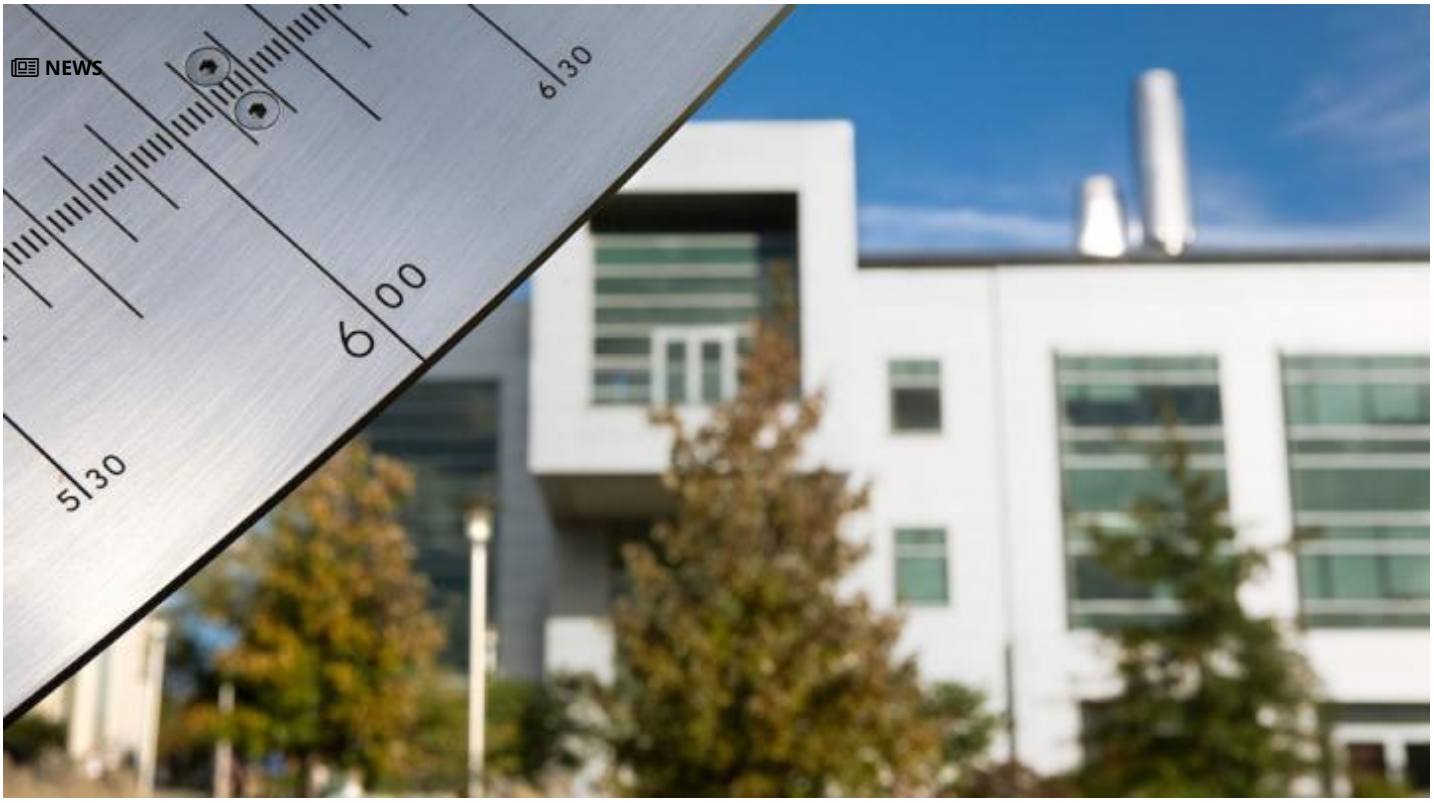
"In the military, like in SE, you need to define the problem and understand what your needs and requirements are functionally before diving into solutions," McCarthy said. "In my last job, for example, the most challenging aspect was getting everyone on the same page. There were U.S. and Coalition forces and military police, and civilians that work on Bagram Airfield as firefighters or paramedics. If we were to conduct an exercise for a single attack on the base, we had to ensure that everyone understood what the plan was, where everyone had to go in order to defeat such an attack. In the EMS project, the crux of the problem is similar—the unification of all the stakeholders."

After he graduates this spring, McCarthy will return for a few years to West Point to teach in the academy's Department of Systems Engineering. "My favorite part of my job is the leadership aspect, not only developing as one myself, but also helping others in that endeavor," he said. "I

was drawn to be an instructor because you get to be part of cadets' progression and development, and hope to impart how many aspects of systems engineering can be applied as they go through their careers in the Army."

But for now, McCarthy is simply grateful for the opportunity to spend more time with his wife Kelly—until recently also in the military—and 2-year-old son Daniel. "This Cornell experience has been fun for us," he said, "especially with family time and enjoying this part of the country. It's where I feel most at home."

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