The fortuitous happened during the summer of 2005 when Col. Michael McGinnis, 51, began phasing out his Army career at the same time that Old Dominion University’s Virginia Modeling, Analysis and Simulation Center (VMASC) began looking for a new executive director.

As head of the Department of Systems Engineering at the U.S. Military Academy and, before that, as director of the Army Training and Doctrine Command (TRADOC) Analysis Center in Monterey, Calif., McGinnis has been a key figure in Army modeling and simulation projects. So when he learned about the VMASC job last summer, he eagerly sought the opportunity to begin his private sector career at one of the nation’s most prestigious modeling and simulation facilities, he said. He accepted the job in November, and he will come to VMASC in June after he has completed the academic year at West Point and retired from the Army.

“When I retire, I will have spent half of a 29-year military career leading high-technology, cutting-edge organizations doing modeling and simulation,” he said. “This is a very good fit for me.”

ODU President Roseann Runte agreed. “Col. McGinnis has broad experience in research, teaching and academic leadership. He has been an effective team and program builder. He is a highly reputed engineer in the fields of modeling, simulation, analysis and visualization,” she said.

“We are proud of the accomplishments of VMASC, the fine work of Bowen Loftin and Roland Mielke, and all look forward to welcoming Dr. McGinnis to this burgeoning research center, so vital to the economic development of this region,” the president added.

Loftin resigned as VMASC executive director in May 2005 to become a vice president of his alma mater, Texas A&M University. Mielke, the VMASC technical director and professor of electrical and computer engineering, is interim executive director.

McGinnis said Mielke telephoned him in November to welcome him. “He updated me on a number of ongoing initiatives, including personnel recruitment, funding and development of new partnerships with industry and government. To his credit, Roland has kept VMASC on course and continues to remain committed, as I am, to maintaining a cohesive, high-performing organization.”

Since 1997, when it was founded, VMASC has been an integral part of a Hampton Roads modeling, simulation and visualization cluster of industry, government and academic entities focused on military and commercial applications. Many of the applications involve training, experimentation and decision making under realistic simulated conditions. Others involve testing of strategies and equipment. In partnership with economic development organizations, VMASC is a catalyst for $500 million per year in regional economic activity.

McGinnis has been the systems engineering department head at West Point for the last six years, and during that time he has been a regular member of official U.S. delegations to international symposia involving computer simulation. In 2002-03 he directed a task force for the secretary of the Army that used modeling and analysis to revamp the way the Army builds its combat brigades.

As director in 1997-99 of the Army Training and Doctrine Command (TRADOC) Analysis Center in Monterey, Calif., McGinnis built a reimbursable research program and gained an international reputation in advanced computer simulation. He gave a keynote speech on “Emerging
Trends in Modeling and Simulation Technologies” at a conference of 400 engineers and scientists in Australia in 1998.

Under his leadership, reimbursable research in systems engineering at West Point increased from $300,000 in 1999 to $3 million in 2005, and he was credited with expanding the institution’s research partnerships both with the Department of Defense and private industry.

He has served with Loftin on a National Council of Sciences committee looking into the future of modeling and simulation and said he has been impressed by the work of VMASC researchers and academicians.

“I am humbled and honored to have been chosen” to lead VMASC, McGinnis said. The center is “already very well positioned as a leader in these fields. A lot of credit must go to the people who are at VMASC now, and I hope that we can keep this team together.”

Mohammad A. Karim, ODU’s vice president for research, said he and others who interviewed candidates for the job were influenced by McGinnis’ academic background and the special projects he has directed for the Army. “Col. McGinnis brings strong leadership experience in modeling, simulation and visualization, as well as systems engineering,” Karim said.

McGinnis, who grew up in the small farming community of Wisner, Nebraska, graduated from West Point in 1977. He holds master’s degrees in applied mathematics and operations research and statistics (1986) from Rensselaer Polytechnic Institute, a master’s in national security and strategic studies from the U.S. Naval War College (1996) and a doctoral degree in systems and industrial engineering from the University of Arizona (1994).

Richard Whalen, the retired Navy captain who is Old Dominion’s director of military activities, said the selection of McGinnis should “enhance the strong ties VMASC has enjoyed with the U.S. military.” He noted the colonel’s service as an artillery officer and added, “I’m especially delighted that the university is adding yet another seasoned leader at VMASC whose military career included significant warfare specialty experience, as well as distinguished academic and research achievement.”

“.Col. McGinnis is eminently qualified to be executive director,” said Robert R. Harper Jr., a Northrop Grumman Mission Systems executive who chairs the VMASC advisory board. “Industry partners of VMASC look forward to working with him. This is a positive step for VMASC and ODU as we move forward in this region with modeling and simulation.”

Harper also is acting executive director of the state Emergency Management Training, Analysis and Simulation Center (EMTASC), which is being housed at VMASC in Suffolk until its own facility is constructed. EMTASC was created in August by then Virginia Gov. Mark R. Warner. It will use modeling and simulation in support of homeland security and other emergency response management functions.

Earlier this year, Warner authorized $1.45 million in state funds to spur growth of modeling and simulation in Hampton Roads. A recent study commissioned by VMASC predicted that the annual economic impact of these technologies could grow from about $500 million in 2005 to $1 billion over the next five years.

VMASC headquarters are in a rented building in northern Suffolk and “VMASC East” facilities are on the ODU campus in Norfolk. The university announced in January that an $11.6 million building for VMASC will be developed just north of Va. Route 164 near the Interstate 664 corridor, about two miles from the current headquarters. The facility is expected to be built by fall 2007.

The northern Suffolk “Sim City” also is home to the Department of Defense’s Joint War Fighting Center (JWFC) and the Joint Battle Center (JBC), co-located in the U.S. Joint Forces Command’s Joint Training, Analysis and Simulation Center (JTASC).

Companies that are involved in modeling and simulation in “Sim City” or elsewhere in Hampton Roads include all of the larger defense contractors as well as many specialized small- and medium-sized companies. Among them are Lockheed Martin, Northrop Grumman Mission Systems, General Dynamics Advanced Information Systems, Boeing, Raytheon, CACI, Alion Science, Loyola Enterprises, DDE, Omni, Warner-Anderson and BMH Associates.

VMASC manages the ODU master’s and doctoral programs in modeling and simulation. In 2003, the university became the first institution in the country to award a doctorate in the field. Currently, 66 master’s students and 34 doctoral students are enrolled in the graduate modeling and simulation programs. The VMASC research and administrative staff and affiliated university faculty members number about 65.

Looking ahead, McGinnis said, “We must find ways to challenge our students that require them to apply what they have learned in the classroom about humanities, sciences, mathematics and engineering to solving mushy, complex, real-world problems. These problems exist today and are what ODU graduates will encounter throughout their professional careers.”