Flight simulator donated by WVU alumnus aids education, research at Statler College

29 July 2022, MORGANTOWN, W.Va. – A cutting-edge flight simulator donated by a West Virginia University alumnus is enhancing aerospace engineering education and research at the Benjamin M. Statler College of Engineering and Mineral Resources.

MVRsimulation donated a mixed-reality flight simulation tool to the Department of Mechanical and Aerospace Engineering. The state-of-the-art technology offers faculty and students the opportunity to explore real-time 3D simulations as they seek to meet the needs of a rapidly changing industrial environment.

Known as the fixed-wing Part Task Mission Trainer (PTMT), the system is currently deployed at a military base in Spain, where it is used to train NATO combat pilots.

“We're really excited about this generous gift by MVRsimulation,” Jason Gross, interim Department chair and associate professor, said. “We have many faculty in our aerospace engineering program that focus on things related to aircraft, flight research, and robotics, so we could integrate this into our research programs. We also teach classes in flight simulation, both at the undergraduate and graduate levels, in our aerospace engineering program. We’re already thinking of ways that we could integrate this technology into our classrooms.”

The donation comes courtesy of W. Garth Smith, president and co-founder of MVRsimulation. Smith earned a bachelor’s degree in aerospace engineering from WVU in 1986. He was inducted as a member of the Statler College Academy of Distinguished Alumni of Aerospace Engineering in 2019 and serves as a member of the Department of Mechanical and Aerospace Engineering Visiting Committee.

Gross said Smith reached out to the Department to share the new product, which Smith felt would benefit the aerospace engineering program at WVU.

“The development of the PTMT is a testament to what a small, talented team can do when working in an environment that values original thinking and encourages the development of creative solutions for practical problems,” Smith said. “Learning to think in this way is something I was emboldened to do during my time at WVU, and hopefully this simulator will support the work of students in the department to develop their own studies and careers in the field of aerospace engineering.”

In addition to the simulator, the donation includes Battlespace Simulation Inc.’s Modern Air Combat Environment (MACE) scenario creation software, a Varjo XR-3 mixed-reality headset, and MVRsimulation’s Virtual Reality Scene Generator (VRSG) software – the same real-time visualization software used in military training centers around the world, including the U.S. Air Force Academy.

The simulator was installed in July at the Engineering Sciences Building on WVU’s Evansdale Campus. MVRsimulation representatives provided training for faculty upon delivery.

MVRsimulation is a privately held small virtual business that develops software and 3D content for building and rendering 3D simulated environments. Smith and partner Richard Rybacki founded the company in 1997, after working together for a U.S. Department of Defense consulting firm and recognizing the potential for PC-based real-time 3D gaming applications. MVRsimulation products are primarily used by the U.S. Armed Forces and NATO partners for military training.

The company's gift was made through the WVU Foundation, the nonprofit organization that receives and administers private donations on behalf of the University.

About MVRsimulation

Founded in 1997, MVRsimulation develops commercial PC-based software for the military simulation and training markets, featuring high-speed 3D visualization content and rapid creation of networked virtual worlds using real-world data. MVRsimulation's real-time visual systems provide the fidelity of geospecific simulation with game-quality graphics. Users can build (with real-world photographic imagery, elevation data, and feature data) high-fidelity virtual worlds with our terrain generation tools, and render in real time, at 60Hz frame rates, the resulting virtual world with our real-time 3D visualization application, Virtual Reality Scene Generator. MVRsimulation systems are used for applications such as UAS/RPA trainers, manned flight simulators, mission planning and rehearsal, joint fires and JTAC simulation training, urban operations training, and emergency response management training. For more information, visit www.mvrsimulation.com or follow us on Linked In.

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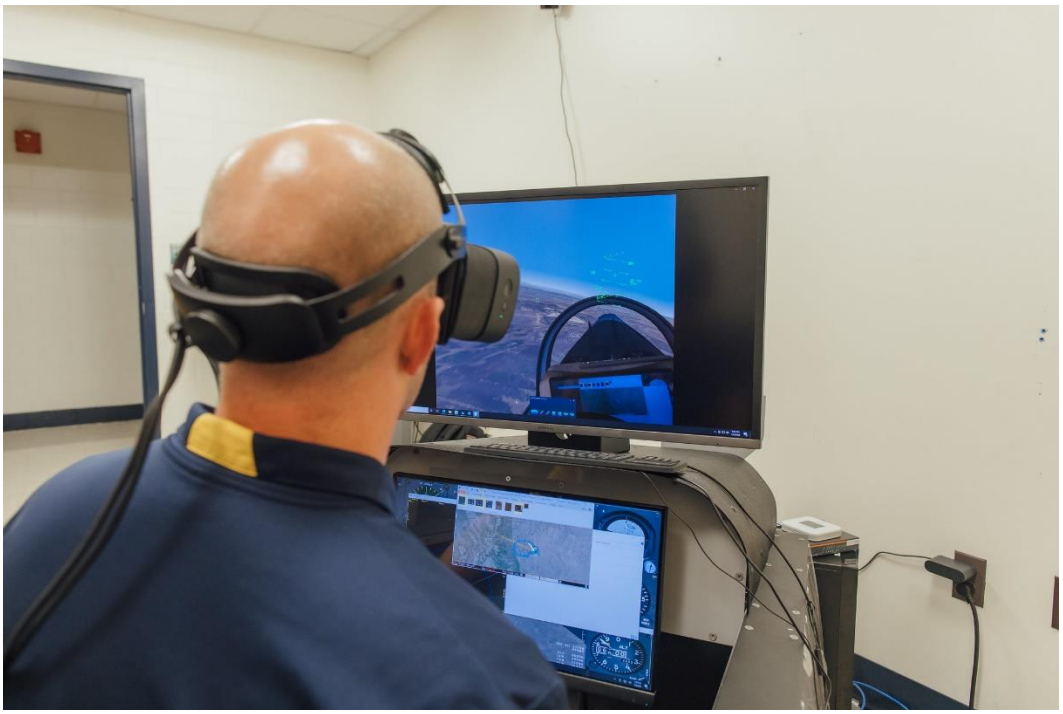
Photo caption: Jason Gross, interim chair of the Department of Mechanical and Aerospace Engineering and associate professor, uses a mixed-reality flight simulation tool donated to WVU's Benjamin M. Statler College of Engineering and Mineral Resources by MVRsimulation.

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