



## ADVANCED RESEARCH FLIGHT SIMULATOR FOR THE UNIVERSITY OF WATERLOO

News / Maintenance / Trainings



At the 23rd World Aviation Training Summit, ALSIM Simulators is excited to announce the sale of the special AL250 simulator with Engineering Pack to the University of Waterloo in Ontario, Canada. ALSIM has been producing highly immersive and innovative flight training devices since 1994.

Dr. Scott Firsing of ALSIM's North America office explains: "the AL250 can be reconfigured to represent several types of aircraft that are used within *ab initio* pilot training. Moreover, Waterloo's AL250 also includes our 'Engineering Pack,' which incorporates a network interface allowing the popular programming platform Matlab to send and receive real-time data to and from the simulator."

Firsing adds: "This 'Engineering Pack' allows the user the ability to interact with the simulator software and hardware. This provides almost endless possibilities including developing simulation protocol and the ability to generate scenarios and control for research trials."

The AL250 simulator will be utilized by researchers within the nascent Waterloo Institute for Sustainable Aeronautics (WISA). WISA was established to be a hub of sustainable aviation

**and aerospace research, technology, and education. To foster transdisciplinary studies and cross-sector partnerships, focused on innovating the air transport sector and informing public policy, in support of a more sustainable future.**

Waterloo Associate Professor and internationally recognized leader in aviation education and human factors, Dr. Suzanne Kearns, elaborates: “The ALSIM simulator is critical for our research into social sustainability – to support workforce development through studies on competency-based education (CBE) in aviation. CBE increasingly allows professionals to achieve a pilot’s license more quickly and to a higher standard. It does this by aligning instruction with contextualized-training that facilitates faster development of required knowledge, skills, and attitudes. The simulator will help analyze the effectiveness of CBE for *ab initio* pilots and produce evidence-based visual standards.”

The use of the AL250 will assist with Waterloo’s strategic plan of mobilizing interdisciplinary research towards innovative solutions to aviation and aerospace sustainability challenges. The simulator will directly support WISA’s goals of developing talent for a complex future, advancing research for global impact, and strengthening sustainable and diverse communities.

Waterloo currently hosts Canada’s largest university-level aviation program. In partnership with another ALSIM operator, Waterloo Wellington Flight Centre, the University’s four-year aviation degrees combine academic studies with professional flight training.

*Waterloo is at the forefront of innovation and is home to transformational research and inspired learning. Located in the heart of Canada’s technology hub, we are growing a network of global partnerships that will shape the future by working beyond disciplines and building bridges with industry, institutions and communities.*

*Waterloo is home to a world-leading Engineering faculty, the largest optometry school in Canada, and other researchers whose work intersects with aviation. With nearly 300 trained pilots as members of Waterloo’s research-intensive ecosystem, the university is poised to become a world leader in aviation-applied research.*

*For more information about the University of Waterloo, please visit: [www.uwaterloo.ca](http://www.uwaterloo.ca)*

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