

# AECOM Uses Simio® to Determine Edmonton Airport's De-icing Needs

## The Story

A gateway to Alberta's rich oil sands region, Edmonton International Airport (EIA) covers over 7,000 acres — making it Canada's largest major airport by area. It's also one of the nation's fastest growing airports. EIA serves about 6 million passengers per year and offers non-stop service to more than 50 national and international destinations — and it's growing.

To prepare for the next growth spurt, the airport turned to AECOM's airport planning group to develop a medium-term plan for its aircraft de-icing installations.



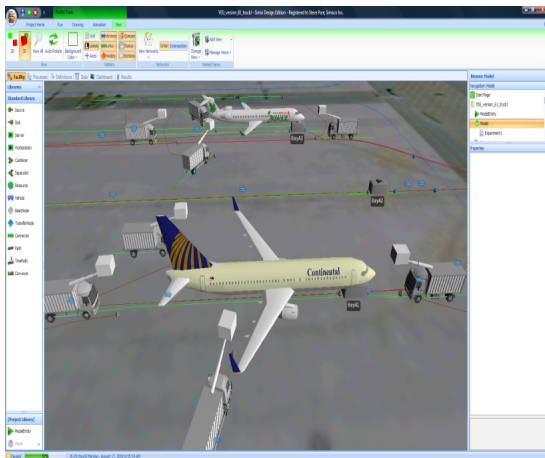
## The Issues

The expected increase in traffic volumes meant that significant funds, aircraft circulation patterns, airline fuel costs as well as passenger satisfaction were at risk. Despite the airport's large area, airside real estate is a precious commodity. Determining how much de-icing space is required, how to organize it and where to place it became noteworthy issues for the airport servicing Canada's northern most provincial capital.

## The Solution

To structure and validate its planning processes, AECOM built a de-icing facilities simulator using Simio simulation software. With the help of Simio, AECOM was able to rapidly describe the de-icing system and use the model as a reliable and highly communicative decision support tool. Simio allowed AECOM's seasoned planners to predict aircraft wait times while experimenting with different flight schedules, weather conditions, aircraft mix, de-icing bay configurations and coordination methods.

"The ability to test the planned facilities under various conditions enabled us to understand the different tradeoffs and deliver designs well suited to our customers' needs which can be expanded as traffic increases," said Louis Roy, AECOM's Senior Airport Planner. "Our de-icing simulator has now found its place among our standard analysis tools. Simio was worth our investment."



### About AECOM

AECOM is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves.

### About Simio LLC

Simio LLC is a private company headquartered in Pittsburgh Pennsylvania dedicated to delivering leading edge solutions for the design, emulation, and scheduling of complex systems.

To find out more on the Simio simulation environment, in Canada please contact **Simaco inc.** by phone at (514) 817-7896 or by email at [info@simaco-sim.com](mailto:info@simaco-sim.com).