

Edmonton International Airport (CYEG)



Edmonton is the reference AVOPSIM integration. The digital twin covers the runways, taxiways, aprons, service roads and terminal area of CYEG, including recent changes to the airport layout and markings, with signage, lighting and operational buildings reproduced from operational drawings and survey data. The fleet was modeled to the airport's own vehicles in its livery, and missions were built around Edmonton's routes, hold points and hotspots.

Airport	CYEG, Edmonton International Airport, Alberta
Digital twin	Airfield, terminal area, fire station, recent layout changes
Fleet	Operations pickup, 6×6 ARFF vehicle, plow and broom, belt loader, pushback, tug and carts, large tractor, fuel and catering trucks
Programs	Driver training, ARFF and rescue, snow removal, ground handling
Stations	Driving station: three curved screens, wheel, pedals, shifter, racing seat
Missions	20 scored scenarios plus instructor-authored missions

What was modeled

- **Airfield.** Runways, taxiways, aprons, service roads, hold points and hotspots on the current layout.
- **Terminal area.** Terminal, gates, boarding bridges and apron markings for ground handling missions.
- **Fire station.** Animated bay doors and response routes for the ARFF program.
- **Signage and lighting.** Signs, markings, centerline and edge lights, stop bars and apron lighting for night missions.
- **Fleet in livery.** Vehicles modeled per unit with cabin instrumentation and specialist functions.
- **Weather and season.** Winter missions with snow, reduced visibility and contaminated surfaces.

The station on site



The Edmonton driving station: a dedicated PC, three curved screens, a force-feedback wheel, pedals and shifter on a rigid frame with a racing seat and headset for the radio program. The same configuration is the Tier 2 station offered to every airport.

From the YEG digital twin



Operations pickup holding short.



ARFF vehicle leaving the fire station.



Winter units at the apron.