

G.E. RESEARCH DEVELOPMENT & TEST CENTER JET ENGINE TEST STAND

Standard Aero Ltd.

Winnipeg, Manitoba



Project Description

KGS Group was retained to provide detailed design and 3D modeling for mechanical, electrical, instrumentation and structural aspects of the engine test stand complex situated at the north end of Winnipeg International Airport.

Standard Aero and G.E. Aviation operated a jet engine ice testing stand out of Mirabel Airport in Quebec. At -20°C , water is sprayed through a wind tunnel and into the suspended engine's intake to allow engineers to confirm the engine will adequately perform under extremely aggressive icing conditions. This engine test stand was moved to Winnipeg to take advantage of a longer winter and therefore an extended test season.

To minimize construction time spent at the Winnipeg Airport site where access is heavily controlled, 3D modeling was used to allow mechanical, electrical and structural items to be shop fabricated. 3D modeling also enabled the team to confirm all components had been accounted for and laid out properly and it enabled acceleration of the project's procurement and construction planning processes.