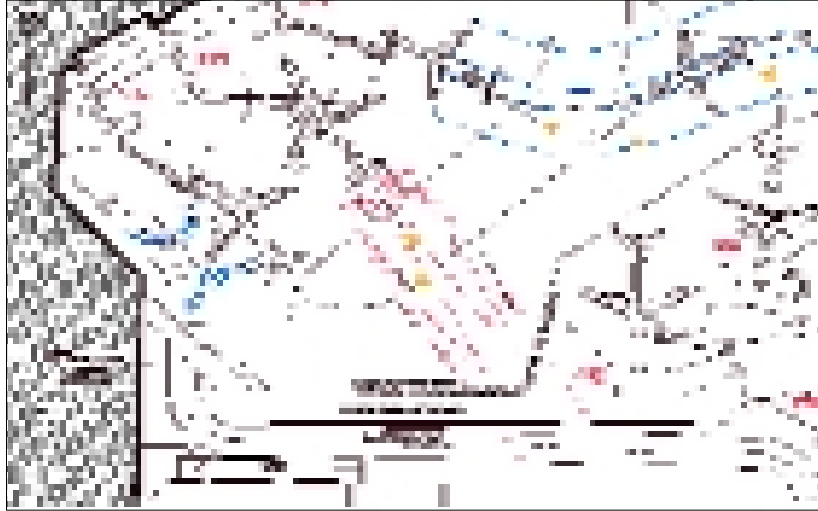


Transoft adds quality through simulation

Today's airports are adding new

dimensions in design quality using specialised computer simulations of ground movement of both aircraft and ground support vehicles, and Hong Kong's new airport at Chek Lap Kok is no exception.

Design engineers at the Airport Authority used AutoTURN aircraft and vehicle simulation software from Canada's Transoft Solutions. The AutoTURN simulation of aircraft



(Graphic: Transoft)

and airport vehicles "overlays" on an airport's computer aided design (CAD). This allows them not only to test their designs against the

normal activity, but also to review unusual or emergency situations.

AutoTURN works by simulating the tracking, turning

and swept paths of aircraft and steerable vehicles (see graphic).

Standard libraries of aircraft types and vehicles are an inherent part of the system and there is the option to set up special non-standard aircraft and vehicle types to suit specific applications. The landing wheel tracks, wing swept paths and aircraft jet-blast can all be checked against fixed ground features on the runways, taxiways, and aprons, and against the paths of other airport vehicles.

Testing the base airport design against simulated swept paths in this way prior to construction gives engineers a chance to weigh physical airport taxiway and gate design against environmental, operational and financial criteria.

Additional levels of design quality can also be added by extending the vision outside normal parameters. This could be with a view towards increased traffic within the current aircraft types employed, or for the provision of new and different aircraft or additional runways.