Passenger Security Screening Checkpoint Analysis

Denver's Security Screening Checkpoint

Client Name: Denver International Airport

Date Started: July 2006   **Date Completed:** August 2007

Denver International Airport (DEN) was reviewing the operation of their three security screening checkpoints (SSCP) relative to possible operational changes. Specifically, the Airport asked TransSolutions to:

- Evaluate several possible operational changes including use of premium, selectee only and express (one "bag" only) lanes; allocating one magnetometer to two x-rays, modifying the number of document checkers, queue layouts, and employee access lanes.
- Determine required Transportation Security Administration (TSA) staffing levels and allocation to achieve acceptable passenger wait times.

TransSolutions built simulation models of DEN's three SSCPs with our *Terminal, Roadway and Curbside Simulation (TRACS)* tool. Using the existing flight schedule, TransSolutions developed passenger demand for an interim demand (with 15% growth) and a long-range demand (with 30% growth) to evaluate the SSCP operations.

The simulation analyses provided recommendations on which proposed operational changes provided benefits to the passenger, reducing wait times to acceptable levels. The team provided additional recommendations to increase the use of underutilized checkpoint lanes by improving the visibility to those lanes.

Following the initial analyses, DEN retained TransSolutions to conduct additional data collection and analyses due to DEN's SSCP throughput reductions. Also, TransSolutions assisted DEN in preparing for implementation of a Registered Traveler (RT) program at the SSCP.