

Success Story – Forecasting Manpower Capacity using Operational Research

Since 1998, low-fares airline easyJet has delivered exceptional value to its customers by pioneering low-cost air travel. Maintaining low operational costs has been key to its ongoing success. As easyJet grew, it recognised the need to effectively plan its crew capacity at bases across the UK and mainland Europe in order to control operational costs and maintain its excellent punctuality record.

easyJet engaged Capacitas to provide an operational research (OR) model to enable prediction of the number of crew required to meet the demand of its growing flying schedule. easyJet required a solution that reflected the multitude of factors that influenced crewing capacity such as roster and shift patterns, crew rank, stand-by requirements and seasonal flying demand. Neil Doherty, manager of Crew Establishment at easyJet said, “Capacitas had already successfully engaged with the business on statistical modelling and understood easyJet and its working pressures. Therefore their staff could quickly step in and assist us with our modelling requirements in the crew establishment arena.”

When the initial project to model over 1,500 flight crew across 15 bases was successfully completed, easyJet asked Capacitas to extend the model to encompass its cabin crew population, numbering over 3,000. The OR model provided a low-cost modelling solution in a short space of time and quickly provided easyJet with the ability to assess the risk of excess or insufficient crew to meet demand. The solution also delivered an important decision-support capability to the Crew Establishment team for its day-to-day duties. “Using a predictive model in the planning window enables other activities to be greater aligned with the supply versus daily demand patterns that are typically encountered within non-flexible roster patterns”, Neil Doherty added.

At the time of writing, easyJet has announced 51 new routes in 2008. This marked growth calls for continuous, long-term operational planning. Neil Doherty commented, “By predicting the daily variations in crew availability, efficiency savings could be realised. easyJet operates in an extremely competitive market where effective planning, enhanced through our relationship with Capacitas, translates into reductions across our crew cost base.”

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