Operations Optimization Value Engineering Assignment 2014-2015

Prof. Curran, 9-12-2014

Assignment grade: 20%

Assignment due: Jan 30th, 2015

Updates and additional information may be supplied during the assignment.

Supporting materials: KLM FY 2013 Results; Schiphol Charges; KLM AC Data; Aircraft Noise Exposure report; Schiphol Safety report.

Work in the same groups of 4 as established for the assignment of Prof. Simons.

Use the blackboard blog to relay questions/comments so everyone can benefit.

General Description:

The aim of the assignment is to do a value engineering based analysis of 3 growth scenarios for an airline (KLM), airport (Schiphol), ATC and the local community around Schiphol. You are free to introduce your own additional material for extra marks.

Assignment Description:

Assume 10%, 30% and 50% growth rate increases in KLM flights going through Schiphol as indicative of potential growth over the next 15 years.

Increase the KLM fleet to accommodate this and split across bought and leased aircraft for long haul, medium haul, Transavia and cargo flights.

Use the KLM FY 2013 report to get the proportionality of each of the above and the relevant revenues, costs, etc.

Use the attached document on airport charges to estimate the landing fees at Schiphol, and assume €15.08 passenger service charges and €12.82 passenger security charges for each passenger passing through Schiphol.

ATC charges can be derived from the KLM report.

Assess community noise and safety degradation based on the measures (metrics) specified in the relevant noise (relative to aircraft movements for example) and safety projections, with aid of the supporting material or your own findings.

Do a value analysis based on a value function based on your weightings for the various values drivers based on your opinion for the various stakeholders – using a value matrix.

Carry this out for the 3 growth scenarios given for each of the four stakeholders, including KLM, Schiphol, ATC, and the local community.

Deliverables:

Deliver your results in a paper format with accompanying Excel Spreadsheet with calculations. The structure of the paper should at least include:

- Title with names
- Abstract
- Introduction
- Lit. Review
- Methodology
- Results
- Discussion
- Conclusions
- References
- Appendices (as necessary for additional material used)

Marking:

The mark will be allocated as a single group mark for each of the 4 members but an on-line peer review will be carried out within each group to identify any intra-group problems, with penalties applied for anyone not contributing. Any one not properly engaged in the group will automatically receive a fail.