

AIRPORT SYSTEMS PLANNING AND DESIGN

Analysis of Airport Landside Operations Assignment

Learning Objectives:

- To give each participant the opportunity to observe actual operations closely, and thus bring home the concepts discussed in class. The premise is that the best way to understand ideas is to experience the practical reality.
- To demonstrate how the performance of operations vary widely over a range of possibilities, by combining your individual sets of data into a collective survey. After our processing, you will be able to compare these results with comparable surveys executed in other years.

To facilitate this task, we have prepared an Excel © file (posted on course web site) in which you can enter your results. Please turn these results in electronically so that we can process them into a master worksheet and present you with the overall tables of results.

Notes:

- This assignment is to be performed individually. Do not go with a friend and record the same data twice!
- Be discreet – do not use a big pad and a stop watch, you would make the employees nervous. Just hang about as many passengers do.

Summary of Tasks:

You are to:

1. Spend about 4 hours at Logan Airport at a busy time, preferably between 4 and 8 p.m. so that you can see the International Building (Terminal E) when it is full. Allocate about 5 to 6 hours in all for this effort, including travel time.
2. Write up a report, which you should submit electronically in addition to your electronic worksheet.

The Visit:

A. Take public transport to the American Airlines building at the airport. Record time of departure from home or office, minutes to T stop, minutes of wait, time of arrival at airport subway station, and time of wait for the bus. Enter total time of trip, door-to-door, in worksheet.

B. Go to arrivals level. Observe the time of: the actual arrival of

- a flight (from the video screens);
- the first bag on the conveyor belt, and
- the last bag from that flight.

Enter the elapsed times, from flight arrival to the first and last bag, in the worksheet.

C. Go to departure level. Observe ticket counters and note:

- the number of persons in one of their snake queues,
- the approximate length of the queue in meters (3m. = 10 feet)
- the time of arrival and departure of either the last passenger or a person with 10 other clients in front of him in the check-in queue (whichever is shorter)
- the average service time observed (min./ passenger) and enter this in your worksheet
- compare this service time with that offered by the automatic kiosks (which you can estimate by observing the time it takes for 3 or 4 passengers to go through a single kiosk).

D. Observe a passenger or passenger group arriving at the curb. Follow them (discreetly, at a distance) noting where they go and how they spend their time. If possible, infer their time of departure (by noting that they checked in for flight XYZ that leaves at a specific time, for example) and estimate how far ahead of the flight they have arrived. Enter this time in minutes in your worksheet.

E. Walk to Terminal C. Record time of departure from AA counters and arrival at Terminal C. Describe path and note any mistakes and observations you may have made.

F. Go to taxi pick-up point at ground level in front of Terminal C. Note:

- The number of persons and groups (these to the best of your ability) arriving over 15 minutes to obtain the average rate of arrival or people and groups (which is the unit using taxis);
- Observe number of taxis in queue for another 15 minutes (you cannot realistically combine this task with preceding). Note number of taxis entering and exiting queue over period and note maximum number of taxis in queue that are actually loading passengers.
- Estimate number of people in queue at start and for each 5 minutes until end;
- Comment on any difficulties in process and suggest improvements.

G. Walk to short term parking lot in front of the International Terminal E. Over a period of 20 minutes, note the number of cars leaving a bank of 20 spaces, noting the number of vehicles occupying each space during this period. Infer the average time of stay of vehicles in this short-term lot, in minutes, and enter in your worksheet.

H. Go into International Building and repeat C and D, entering the results in the worksheet.

I. Return from airport, recording and reporting the same data as for A.

The Report:

Your report should:

1. Report the data you have recorded, both on paper as part of the discussion, and electronically;
2. Discuss the specifics of the observations, noting how these compared to formulas given in class, and comment on anything that struck you as interesting or strange;
3. Comment overall on how the theory presented in class compares to the reality you observed -- to what extent do you think it is possible for general formulas to represent the reality of operations; and
4. Comment on the overall quality of service at Logan on the landside. What is done well? Where are the problems? What surprised you?

Good Luck! I hope you enjoy the experience.

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