

How the walkway increases BIA's capacity

We believe the walkway development increases the airport's capacity in several ways:

- 1) it increases the number of stands and gates, hence the number of planes that can be handled at once
- 2) it increases the number of passengers that can be in the departure flow by adding 2000m² of queuing space in 8 zones, sufficient for at least 1500 standing passengers
- 3) it decreases the time planes need to be parked on a stand and hence increases number of planes that can be handled in a given time
- 4) it removes delay to board, travel on and disembark from the buses

From the following diagram it is easy to see that the flow of passengers through an airport can be split into two separate chains of processes, one for departing and one for arriving passengers.

All passengers have to travel through the flow, but some stages can be skipped – for instance Ryanair encourages passengers to check-in on-line and to not put any bags in the hold. This eliminates slow and expensive processes. The maximum throughput is limited by any bottlenecks. In the past check-in and security have been key bottlenecks, but a large fraction of future passengers will not check-in at all, or will use self-service kiosks. There were 31 manned desks in 2006. The security facilities are currently being upgraded to increase throughput. By increasing the number of parallel positions in each of these areas, and speeding up processing at each position these have been removed as bottlenecks.

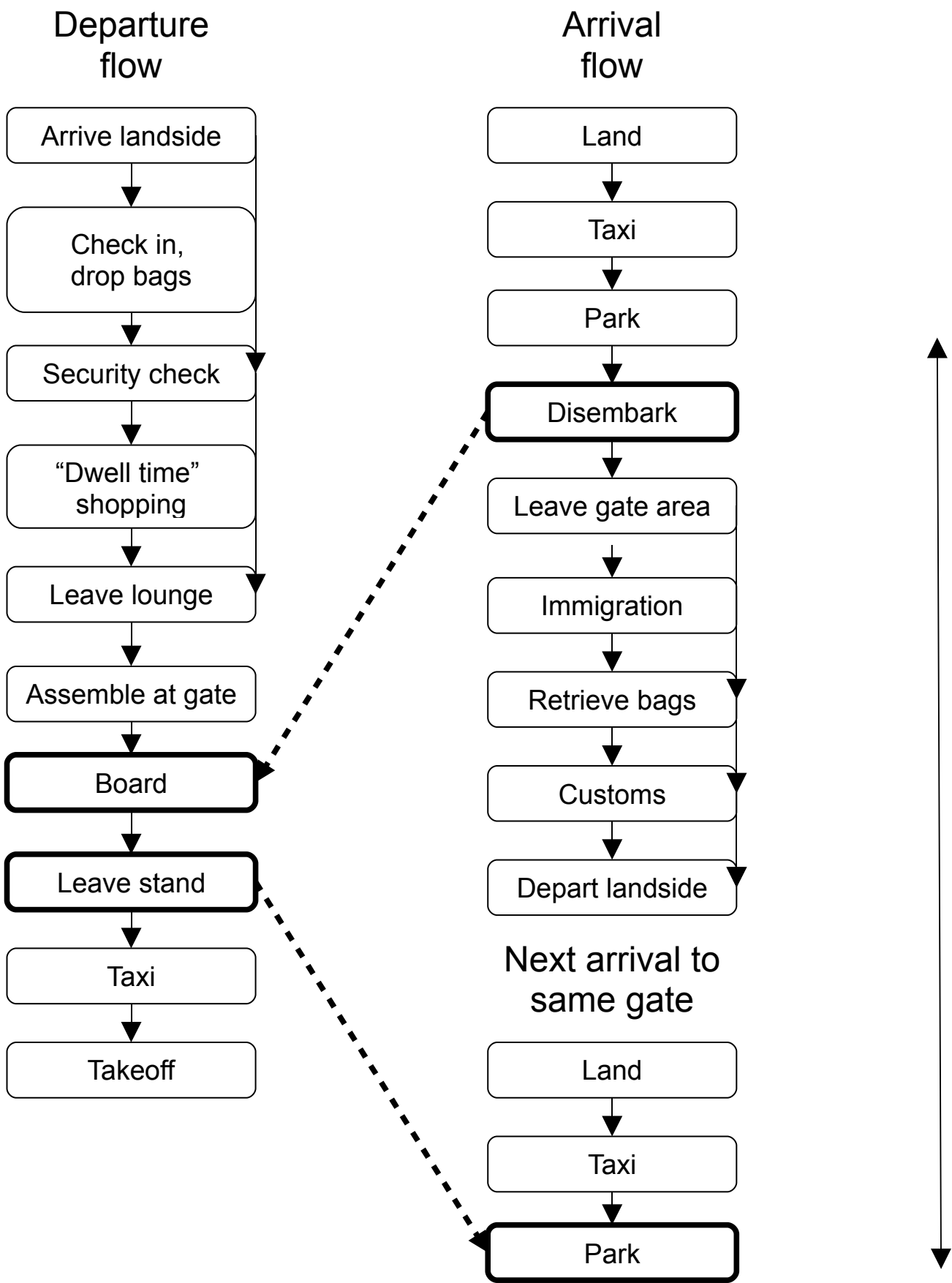
The remaining bottleneck is the time to get passengers on and off the planes, which dictates the amount of time each plane needs to be parked at a stand. Ryanair and easyJet aim for turnaround times of 25 minutes or less - that is the time parked on the stand and hence the time between one plane using that stand and the next being able to use it. This determines the number of planes that can be handled each day or during each busy period.

By decreasing the time on the ground, the low cost carriers can fit the required 4 flights per plane per day into the available flying hours. Only with this number of flights can they remain economic, requiring each plane to be over 60% full just to break even. If they can fit in more flights per plane then this increases their profits, and also increase the number of passengers handled by the airport. Each Ryanair plane based at the airport will typically add around 250000 passengers per year.

With the current busing scheme, the plane needs to be on stand and ready from before the time the first passenger disembarks until after the time the last new passenger embarks by bus. As the time to get on and off the buses adds to this time this typically means 35 minutes or more is spent on the ground. By contrast, with the walkway the first step of assembling the passengers at the departure gate in the pre-boarding zone can complete before the plane has even landed, and the first new passenger can board very soon after the last passenger has disembarked. This allows the plane to be on the ground for a much shorter time – perhaps 10 or more minutes less (York Aviation states 5 minutes which seems pessimistic).

It is obvious that the walkway increases capacity and that this will have environmental and other impacts. The plans should have full impact assessments and be submitted as a full planning application. We request that the Council reject this as permitted development and request full plans be submitted along with the necessary impact assessments.

Jeremy Birch 14/5/2008 on behalf of North Somerset Friends of the Earth



Example flows through an airport with critical path for use of stands highlighted