Light Rail to Airports

Lessons learnt, key issues and success criteria
Types of passenger airport railway

- High speed dedicated (Airport Express)
- High speed network
- Regional
- Metro, commuter or suburban
- Light rail
Airports served by light rail

- Baltimore-Washington International (BWI)
- Bremen, Germany
- Copenhagen, Denmark
- London City Airport, UK
- Newcastle, UK
- Nuremberg, Germany
- Portland, Oregon
- Porto, Portugal
- St. Louis, Missouri

And about eight others (with more coming)
## Some statistics

<table>
<thead>
<tr>
<th>City</th>
<th>Time (minutes)</th>
<th>Distance (km)</th>
<th>Fare (US$)</th>
<th>Trains/hour</th>
<th>First (weekdays)</th>
<th>Last (weekdays)</th>
<th>Mode share</th>
</tr>
</thead>
<tbody>
<tr>
<td>BWI</td>
<td>45</td>
<td>16</td>
<td>1.60</td>
<td>7</td>
<td>05:10</td>
<td>00:45</td>
<td>5</td>
</tr>
<tr>
<td>Bremen</td>
<td>15</td>
<td>3</td>
<td>3.19</td>
<td>6</td>
<td>04:55</td>
<td>23:45</td>
<td></td>
</tr>
<tr>
<td>Copenhagen</td>
<td>15</td>
<td>12</td>
<td>5.96</td>
<td>12</td>
<td>05:00</td>
<td>Midnight</td>
<td>9</td>
</tr>
<tr>
<td>London City</td>
<td>22</td>
<td>8</td>
<td>5.20</td>
<td>6</td>
<td>05:30</td>
<td>00:15</td>
<td>51</td>
</tr>
<tr>
<td>Newcastle</td>
<td>22</td>
<td>9</td>
<td>5.20</td>
<td>5</td>
<td>05:40</td>
<td>22:40</td>
<td>23</td>
</tr>
<tr>
<td>Nuremberg</td>
<td>12</td>
<td>7.5</td>
<td>2.59</td>
<td>3</td>
<td>05:00</td>
<td>00:35</td>
<td></td>
</tr>
<tr>
<td>Portland Oregon</td>
<td>38</td>
<td>14</td>
<td>2.30</td>
<td>4</td>
<td>05:00</td>
<td>00:05</td>
<td>8</td>
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<tr>
<td>Porto</td>
<td>30</td>
<td>18</td>
<td>2.00</td>
<td>4</td>
<td>06:00</td>
<td>01:30</td>
<td></td>
</tr>
<tr>
<td>St. Louis</td>
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<td>21</td>
<td>3.50</td>
<td>6</td>
<td>04:30</td>
<td>Midnight</td>
<td>5</td>
</tr>
</tbody>
</table>

Mode share figures are very difficult to find!
Issues - BWI

- First train from airport is 10:40 on Sundays
- Four steps up into trains
- No baggage space
- Times not on airport FIDs – but Amtrak & MARC train times are!
- Slow journey

- Station well sited for international arrivals, bad for Southwest!
- Stops by Convention Center, downtown hotels
- Ticket machines in terminal
Issues - Copenhagen

- Access from terminal is complex and not intuitive (but recently improved)
- No baggage space on trains
- Inconspicuous stations (low key signage)
- Good central area distribution
- Fast – 48 km/h
Issues – London City

- Surges of passengers > waiting lines
- No bag space on trains
- With recent extension beyond the airport, London-bound trains are sometimes full of commuters
- Main downtown station (Bank) inconvenient for those with bags
  - But a £½bn makeover coming
- Good interchange to London Underground
- Mode share would be 70% with direct connection to Canary Wharf – coming?
- Very short distance train to check-in
Issues – Portland (Oregon)

- Slow journey
- Older trains have steps up
- Good provision for bags, bikes and strollers
- Excellent downtown distribution
Issues – St. Louis

- No baggage space on trains
- Downtown distribution reasonable
- Highly visible within airport
- Welcome point staffed by volunteers
- Stations at both terminals
- Fast – 51 km/h
Issues – Seattle-Tacoma

😊 Works in bad weather!
😊 Dramatic infrastructure: interesting ride
😠 Long walk to terminal (although less far than buses)
😠 Confusing fare structure
Success factors

- Convenient
- Level platform and train floor
- Provision for luggage
- Hours of service ...
Flights from Salt Lake City

- 5 leave before 6:00
- 8 leave between 6:00 and 6:30
- 6 leave between 6:30 and 7:00

What time do people need to be at the terminal for these flights?

What time do employees need to be there to welcome them?
Other lessons - 1

- Surges of people
- Mission creep – do too many jobs badly?
- Good fit into airport fabric
- Fare irrelevant –
- but must give value for money (SEPTA)
- Design is important
- Battleships have to be grey....
  ....subway cars do not
Other lessons - 2

- Heathrow Airport owns Heathrow Express ($67m profit in 2011)
- Vienna Airport owns 50.1% of the City Airport Train ($360k profit 2011)
Sometimes cars full of gas are welcome, electric LR vehicles are not!

Is there an impact on parking?

Is there an impact on crime?
One to watch - 1

- **RhônExpress** - express tram serving Lyon St-Exupéry Airport
- Opened August 2010
- Dedicated service – 2 intermediate stops, one fare
- Premium fare product
- Shares tracks with another operator for half of journey
One to watch - 2

Downtown Lyon

Metro interchange: La Soie

Local tram terminus: Meyzieu

Shared track with passing places at some intermediate stations

Dedicated track

Airport

Paris – Marseilles high speed line
One to watch - 3

Local tram approaching La Soie – note passing loops.

RhônExpress at the temporary airport station

RhônExpress interior
Lyon Saint-Exupery Airport Station, France
Other useful resources

- TCRP report 62 – Improving public transportation access to large airports (2000)
- TCRP report 83 – Strategies for improving public transportation access to large airports (2002)
- ACRP report 4 – Ground access to major airports by public transportation (2008)

Major author was Matthew Coogan, a member of IARO’s governing Board
International Air Rail Organisation (IARO)

- Spread world class best practice
- Disseminate good practical ideas – for new and existing links
- Provide information
- Research solutions in common problem areas

Overall objective - to improve everyone’s bottom line
Our next International Air/Rail Conference

- Here in Salt Lake City
- 8/9 April 2013
- Airport Line press launch 8 April
- Launch of IARO’s report on “Light rail to Airports”
Welcome, Lublin!

- Lublin Airport opened yesterday
- Light rail service to the city
Andrew Sharp

Policy Adviser
International Air Rail Organisation

andrew.sharp@iaro.com

www.iaro.com

www.airrailandtoday.com

www.airportrailwaysoftheworld.com