Noise Comparison Analysis
A380 vs. B747

February 11, 2009

LAX/Community Noise Roundtable
Methodology

• Comparison between B747-400 and A380 with long-haul flights:
  LAX to Melbourne
  LAX to Sydney

• Comparison of noise levels from aircraft operations on the north and south runways

• Noise levels are averages based on a set number of operations, unless otherwise stated
Noise Monitors for 25L Departures
Departures on 25L

Noise levels based on an average of 35 departures per aircraft

- B744 on 25L
- A380 on 25L

Average SEL:
- ESG5: 82.7
- ESG4: 79.3
- ESG3: 83.4
- ESG2: 91.4
- ESG1: 89.4
- AP2: 99.9
- PDR1: 82.1
- ESG5: 73.4
Departures on 25L and 25R

Noise levels based on an average of 35 departures per aircraft

- **B744 on 25R**
- **A380 on 25L**

<table>
<thead>
<tr>
<th>Location</th>
<th>B744 SEL</th>
<th>A380 SEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESG5</td>
<td>81.2</td>
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<tr>
<td>ESG4</td>
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<tr>
<td>ESG3</td>
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<tr>
<td>ESG2</td>
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<td>73.4</td>
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</tbody>
</table>
Departures – All three operations

Noise levels based on an average of 35 departures per aircraft

- B744 on 25L
- B744 on 25R
- A380 on 25L
Noise Monitors for 25L Arrivals
Arrivals on 25L

Noise levels based on an average of 42 arrivals per aircraft

- B747 on 25L
- A380 on 25L
Noise Monitors for 24L Departures
Noise levels based on an average of 6 departures per aircraft

- B744 on 24L
- A380 on 24L

Departures on 24L
Noise Monitors for 24R Arrivals
Arrivals on 24R

Noise Levels based an average of 10 arrivals per aircraft

- B747 on 24R
- A380 on 24R
## FAA Certificated Noise Levels

### AC36-1H

- **Takeoff (EPNdB):** 99.7
- **Sideline (EPNdB):** 98.6
- **Approach (EPNdB):** 98

### MTOW (lbs) | MLW (lbs)
---|---
A380 | 1,254,000 | 862,000
B744 | 875,000 | 652,000

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Los Angeles World Airports
Noise Comparison w/ PAX information

Departures on 25L

Noise levels based on 1 departure per aircraft

- B744 w/ 379 seats: 82% LF
- A380 w/ 450 seats: 92% LF
- A380 w/ 450 seats: 65% LF

Los Angeles World Airports
Noise Comparison w/ PAX information

Arrivals on 25L

- B744 w/ 379 seats: 68% LF
- A380 w/ 450 seats: 90% LF

Noise levels based on 1 arrival per aircraft