Statistical Update on LAX Aircraft Operations

July 13, 2016

LAX/Community Noise Roundtable
Statistical information on the following operations:

• East Departures
• Early Turns
• Go-arounds
This report shows a summary of aircraft operations departing to the east while the airport is still conducting westerly departures between midnight and 6:30 a.m. These individual easterly departures usually occur when the pilot of a heavy aircraft (e.g. B747s) determines that the tail wind is too great for the weight of the aircraft and requests to depart east into the wind for aircraft safety.

Sample of East Departure Flights
## Non-Conforming East Departures
### Midnight to 6:30 AM
#### One Year Period
**June 2015 to May 2016**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Operator</th>
<th>Flight No.</th>
<th>Aircraft</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/19/15</td>
<td>1:44*</td>
<td>QFA</td>
<td>QFA16</td>
<td>B744</td>
<td>Wind 050 degrees at 8 knots</td>
</tr>
<tr>
<td>7/19/15</td>
<td>1:46*</td>
<td>QFA</td>
<td>QFA18</td>
<td>B744</td>
<td>Wind 040 degrees at 9 knots. Gust 21.</td>
</tr>
<tr>
<td>8/18/15</td>
<td>12:20*</td>
<td>UAL</td>
<td>UAL839</td>
<td>B772</td>
<td>Wind 100 degrees at 5 knots</td>
</tr>
<tr>
<td>10/11/15</td>
<td>1:33</td>
<td>ANA</td>
<td>ANA1005</td>
<td>B772</td>
<td>Wind 100 degrees at 5 knots</td>
</tr>
<tr>
<td>10/11/15</td>
<td>4:51</td>
<td>KAL</td>
<td>KAL8216</td>
<td>B748</td>
<td>Wind 040 degrees at 3 knots</td>
</tr>
<tr>
<td>12/24/15</td>
<td>4:20*</td>
<td>NCA</td>
<td>NCA109</td>
<td>B748</td>
<td>Wind 340 degrees at 5 knots</td>
</tr>
<tr>
<td>1/25/16</td>
<td>3:22</td>
<td>QFA</td>
<td>QFA18</td>
<td>B744</td>
<td>Wind 050 degrees at 4 knots</td>
</tr>
<tr>
<td>3/17/16</td>
<td>1:08</td>
<td>UAL</td>
<td>UAL839</td>
<td>B772</td>
<td>Wind 070 degrees at 5 knots</td>
</tr>
<tr>
<td>4/30/16</td>
<td>3:04*</td>
<td>NCA</td>
<td>NCA101</td>
<td>B744</td>
<td>Wind 170 degrees at 5 knots</td>
</tr>
</tbody>
</table>

*Noise complaint(s) attributed to incident.

### Note
- ANA is ALL NIPPON AIRWAYS
- KAL is KOREAN AIRLINES COMPANY, LTD.
- NCA is NIPPON CARGO AIRLINES
- QFA is QANTAS AIRWAYS LTD.
- UAL is UNITED AIRLINES
Early Turns to the North

Aircraft departing to the ocean turn early prior to reaching the shoreline.
Early Turns to the South

Aircraft departing to the ocean turn early prior to reaching the shoreline.

Graphs showing annual and monthly comparisons of total early turns, including early turns by props and jets, as well as total 25 L/R departures.
Early Turn Breakdown

Result of Investigation
Only El Segundo and Playa Del Rey Gates
Early Turns by Operator

Most Frequent Operators
One Year Period
(Jun 2015 to May 2016)

Number of Early Turns

- GA: 190 (1.8%)
- American: 141 (0.3%)
- SkyWest: 113 (0.4%)
- Southwest: 112 (0.3%)
- Delta: 60 (0.2%)
- Alaska: 56 (0.5%)
- United: 56 (0.2%)
- Volairs: 46 (2.1%)
- Fed Ex: 43 (0.9%)
- Nefleis Aviation: 42 (3.0%)

( ) = Percentage of Total Departures for each Operator

Legend:
- Green: Prop Early Turns
- Orange: Jet Early Turns
Go-Arounds

Monitoring pilot or ATC initiated go-arounds or missed approaches

Example of Go-arounds

Annual Comparison

Monthly Comparison
Go-Arounds – Not Maintaining RWY Headings

Example of Go-Arounds not maintaining runway headings

Go-Around Comparison

- Total Go-Arounds
- Non RWY Headings

Go-Around Comparison

- South Headings
- North Headings

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10 mi   N   5 mi
# Reasons for Go-Arounds

<table>
<thead>
<tr>
<th>Reason</th>
<th>Pilot Initiated</th>
<th>Controller Initiated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>65</td>
<td>97</td>
</tr>
<tr>
<td>Pilot Initiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too high or too fast</td>
<td>44</td>
<td>31</td>
</tr>
<tr>
<td>Weather</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>Aircraft Equipment (flaps, gears, avionics)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Ground Equipment (NAVAIDS, lighting, etc.)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Traffic Collision Avoidance System (TCAS)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Controller Initiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-trail Spacing</td>
<td>6</td>
<td>43</td>
</tr>
<tr>
<td>Previous Arrival Traffic on Runway</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Departure Traffic on Runway</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Runway Crossing Traffic</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
Go-Arounds – By Operator

Most Frequent Operators
One Year Period
(Jun 2015 to May 2016)

North Complex
South Complex

American: 158
Compass: 136
Southwest: 116
United: 114
Delta: 105
SkyWest: 55
Alaska: 42
GA: 21
Virgin America: 21
Cathay Pacific: 17

0 20 40 60 80 100 120 140 160 180

0 20 40 60 80 100 120 140 160 180

American: 75%
Compass: 57%
Southwest: 25%
United: 55%
Delta: 34%
SkyWest: 44%
Alaska: 36%
GA: 38%
Virgin America: 24%
Cathay Pacific: 35%