

# MEMORANDUM

## DEPARTMENT OF AVIATION

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TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER

SUBJECT: APRIL THROUGH JUNE 2012 NOISE COMPLAINT REPORTS

DATE: JULY 20, 2012



Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for April through June 2012. Please note the following airport abbreviations: **McCarran International Airport (LAS), North Las Vegas Airport (VGT), and Henderson Executive Airport (HND).**

The following reports describe noise complaints and operational data regarding helicopter and fixed-wing aircraft operations at LAS, VGT, and HND. Aircraft noise complaints are received either through the CCDOA's Noise Hotline (261-3694), the Noise Office (261-5600), or calls forwarded from LAS's toll free number (1-800-261-5704). Nellis Air Force Base noise complaints are forwarded to the Nellis Public Affairs Office (652-2750), and noise complaints regarding aircraft operations from the Boulder City Airport are forwarded to the Boulder City Airport Coordinator (293-9405). Individuals who express concerns regarding aircraft operations originating from private facilities (i.e., Valley Hospital, the private helipad located near Las Vegas Blvd. and Larson Lane, or the private helipad located near Cheyenne Road and North 5th Street) are asked to contact the individual property owner directly.

**Exhibit 1** of each Monthly Noise Complaint Report illustrates the number of calls received by community as well as the number of individual callers or households. **Exhibit 2** illustrates the primary nature of the disturbance as identified by the caller. The second page of each monthly report (**Exhibit 3**) graphically illustrates all known origins of the calls received that month. **Exhibits 4 and 5** summarize arrival and departure runway use for large and non-large air carrier aircraft (new for the 2012 monthly reports). Arrival and departure corridor use for helicopters are summarized in **Exhibit 6** (also new for the 2012 monthly reports). **Exhibit 7** provides a complete arrival fleet mix of all aircraft landing at LAS and highlights the two noisier aircraft types, the Boeing 727 series and Boeing 737-100 and 737-200 series (non-large air carrier aircraft types were added to the 2012 monthly reports). **Exhibit 8** illustrates the general departure direction for large aircraft (historically only provided on an annual basis).

Lastly, **Exhibit 9** summarizes how well large aircraft and helicopters adhered to the preferred, non-regulated departure corridors (also historically provided on an annual basis for large aircraft, with helicopter analysis new for the 2012 monthly reports). Adherence to preferred departure corridors is voluntary, and neither Clark County nor the State of Nevada regulates aircraft in flight. The FAA, through the discretion of Congress, has sole authority over the safe and efficient utilization of the nation's navigable airspace. Therefore, local and state authorities cannot legally enforce the use of these departure corridors, or impose penalties to pilots who opt not to comply with preferred procedures. "Compliance gates" are located along these historical/fly-quietly departure routes. If all aircraft flew with advanced navigational technologies and operated under Required Navigational Precision (RNP) procedures, then it could be expected that up to 95% of all aircraft would be within 0.3 nautical miles (NM) of a fly-over point. Therefore, 0.3 NM is the threshold for compliance for large air carrier aircraft. The compliance threshold for helicopters is 500 feet.

The following provides a synopsis of each monthly noise complaint report and additional noise-related issues addressed during the reporting period. Please refer to each noise complaint report for more detailed information.

## Monthly Noise Complaint Summaries

**April 2012:** 61 total complaints - a 91% increase from 2011 and a 2% increase from 2010. On average, each caller (or household) issued 2.5 calls. The most calls received from one household totaled 28.

### Calls by Community - (Exhibits 1 and 3)

**Majority (more than 50%):** The **City of Henderson** community issued 31 calls (51%). This community is typically impacted by aircraft departing to the east (from Runway 07R and Runway 07L). This community is also impacted by aircraft arriving from the east (into Runway 25R and Runway 25L, LAS preferred departure configuration).

**Minority (between 10% and 50%):** The **Spring Valley** community issued 14 calls (23%). This community is typically impacted by aircraft departing to the west (from Runway 25R and Runway 25L). This community is also impacted by aircraft departing to the north (from Runway 01R and Runway 01L) that turn left (to the west and south).

The **Paradise and Winchester** communities issued 8 calls (13%). These communities are typically impacted by aircraft departing to the north (from Runway 01R and Runway 01L) and aircraft arriving from the north (into Runways 19R and 19L).

**Repeat Caller Impact:** Two households issued 61% (37 calls) of all the calls received in April 2012.

### Calls by Operation - (Exhibit 2)

- LAS:** 39% of the total calls were due to **LAS** fixed-wing operations.
- 25% were due to departures to the north from Runways 01L and 01R (60% from one household).
- VGT:** 2% of the total calls were due to **VGT** fixed-wing operations.
- HND:** 3% of the total calls were due to **HND** fixed-wing operations.
- Helos:** 56% of the total calls were due to **helicopter** operations.
- 82% from one household.

### LAS Operations & Runway Use by Large Air Carriers - (Exhibit 4)

- Overall:** 459 daily *departures*<sup>1</sup> – a 3% decrease from 2011 and 3% increase from 2010.
- 64% of departures were to the west, 16% north, 11% south, and 9% east.
- 490 daily *arrivals* – a 3% increase from 2011 and 5% increase from 2010.
- 76% of arrivals were from the east, 12% north, 10% south, and 2% west.

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<sup>1</sup> Note: Due to the location of the radar south of Sunset Road, and the angle of the radar signal to avoid ground clutter, some aircraft that depart to the north from LAS are not captured until well north of Tropicana Avenue. Therefore, the AirScene application, used to determine runway use and traffic counts, does not tag these operations as either occurring at LAS or as a departure. Thus, total departure counts may be less than what likely occurred.

**Daytime:** 385 daily *departures*<sup>2</sup> – a 4% decrease from 2011 and a 1% decrease from 2010.  
▪ 60% of departures were to the west, 17% north, 13% south, and 10% east.  
430 daily *arrivals* – a 3% increase from 2011 and a 3% increase from 2010.  
▪ 75% of arrivals were from the east, 12% north, 11% south, and 3% west.

**Nighttime:** 73 daily *departures*<sup>3</sup> – a 5% increase from 2011 and a 29% increase from 2010.  
▪ 83% of departures were to the west, 11% north, and 6% south.  
61 daily *arrivals* – a 5% increase from 2011 and a 27% increase from 2010.  
▪ 82% of arrivals were from the east, 14% from the north, and 5% from the south.

**Daytime vs. Nighttime:** Approximately 81% of all *departures* and 88% of all *arrivals* occurred during the daytime hours.

LAS Operations & Runway Use by **Non-Large Air Carriers** - (Exhibit 5)

**Overall:** 79 daily *departures*<sup>4</sup> – a 10% decrease from 2011 and 3% decrease from 2010.  
▪ 56% of departures were to the south, 23% north, 13% west, and 8% east.  
93 daily *arrivals* – a 1% decrease from 2011 and 9% decrease from 2010.  
▪ 58% of arrivals were from the north, 20% south, 19% east, and 3% west.

**Daytime:** 73 daily *departures*<sup>5</sup> – a 9% decrease from 2011 and a 2% decrease from 2010.  
▪ 55% of departures were to the south, 24% north, 12% west, and 8% east.  
87 daily *arrivals* – a 1% decrease from 2011 and a 10% decrease from 2010.  
▪ 56% of arrivals were from the north, 20% south, 20% east, and 3% west.

**Nighttime:** 7 daily *departures*<sup>6</sup> – an 18% decrease from 2011 and an 18% decrease from 2010.  
▪ 71% of departures were to the south, 16% west, and 13% to the north.  
6 daily *arrivals* – no change from 2011 and no change from 2010.  
▪ 73% of arrivals were from the north, 15% south, 12% east, and 1% west.

**Daytime vs. Nighttime:** Approximately 91% of all *departures* and 94% of all *arrivals* occurred during the daytime hours.

Operations by Corridor for **Helicopter Tours** - (Exhibit 6)

**Tropicana:** 118 daily *departures* - an 11% decrease from 2011 and an 8% increase from 2010.

**Charleston:** 117 daily *arrivals* - a 9% decrease from 2011 and a 10% increase from 2010.

**Strip:** 37 daily *touch and go's* - an 8% increase from 2011 and a 49% increase from 2010.

**Daytime vs. Nighttime:** Approximately 97% of all helicopter tour operations occurred during the daytime hours.

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<sup>2</sup> See footnote #1.

<sup>3</sup> See footnote #1.

<sup>4</sup> See footnote #1.

<sup>5</sup> See footnote #1.

<sup>6</sup> See footnote #1.

LAS Fleet Mix for All Aircraft Types - (Exhibit 7)

- Heavies:** *Very large* air carrier turbine-driven aircraft (those weighing 300,000 lbs. or more) accounted for 2% of the daily traffic.
- Large:** *Large* air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 65% of the daily traffic.
- Medium:** *Medium* turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 1% of the daily traffic.
- Small:** *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 7% of the daily traffic.
- Military:** *Military* turbine-driven aircraft accounted for less than 1% of the daily traffic.
- Non-Jet:** *Piston-driven* aircraft and unassigned aircraft types accounted for 5% of the daily traffic.
- Helos:** *Touring helicopters* accounted for 21% of the daily traffic.
- Noisier Aircraft Types:** The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for less than one operation per day.

LAS General Departure Direction for Large Aircraft - (Exhibit 8)

- Primary:** In 2012, 64% departed to the *west* (from LAS's primary departure runways). This figure was 68% in 2011 and 63% in 2010.
- Secondary:** In 2012, 11% departed to the *south* (from LAS's secondary departure runways). This figure was 10% in 2011 and 14% in 2010.
- Alternate 1:** In 2012, 16% departed to the *north* (from LAS's alternate departure runways). This figure was 19% in 2011 and 19% in 2010.
- Alternate 2:** In 2012, 9% departed to the *east* (from LAS's alternate departure runways). This figure was 3% in 2011 and 4% in 2010.

Gate Compliance for Large Aircraft and Helicopters - (Exhibit 9)

- SVHS:** In 2012, 94% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 25L or 25R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 95% in 2011 and 91% in 2010.

The SVHS "compliance gate" is located southwest of Warm Springs Rd. and Buffalo Dr., approximately 5 miles due west and 1.5 miles due south of the extended runway centerline of Runways 25L and 25R. This gate was established along an existing noise abatement flight track which requests pilots to proceed runway heading to 3 nautical miles from the Las Vegas very-high frequency omnidirectional range tactical air navigation (VORTAC) facility before turning left (or towards the south) - where large air carrier aircraft have historically been encouraged to operate. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Nevada Trails

community) and aircraft turning late along this corridor (like the Rhodes Ranch community).

**Peace:** In 2012, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 25L or 25R and made a right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 94% in 2011 and 91% in 2010.

The Peace “compliance gate” is located northeast of Tropicana Ave. and I-215, approximately 6 miles due west and 2 miles due north of the extended runway centerline of Runways 25L and 25R. This gate was also established along an existing noise abatement flight track which requests pilots to proceed runway heading to 4 nautical miles from the Las Vegas VORTAC before turning right (or towards the north) - where large air carrier aircraft have historically been encouraged to operate. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Spanish Trail community) and aircraft turning late along this corridor (like the Summerlin South community).

**Pebble:** In 2012, 97% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 96% in 2011 and 96% in 2010.

The Pebble “compliance gate” is located southeast of Blue Diamond Rd. and Decatur Blvd., approximately 4 miles due south by southwest of the extended runway centerline of Runways 19L and 19R. This gate was also established along an existing noise abatement flight track which requests pilots to proceed runway heading to 3 nautical miles from the Las Vegas VORTAC before turning - where large air carrier aircraft have historically been encouraged to operate. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Warm Spring Estates community) and aircraft turning late along this corridor (like the Southern Highlands community).

**UNLV:** In 2012, 83% of the large air carrier aircraft that departed to the north from Runways 01L or 01R were within 0.3 NM of the *UNLV sports complex*. This figure was 78% in 2011 and 33% in 2010.

The UNLV “compliance gate” is located southeast of Flamingo Rd. and Paradise Rd., approximately 1 mile due north by northeast of the extended runway centerline of Runways 01L and 01R. This gate was also established along an existing noise abatement flight track which requests pilots to proceed runway heading to 2 nautical miles from the Las Vegas VORTAC before turning - where large air carrier aircraft have historically been encouraged to operate. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor, located due east and due west of UNLV.

**Boulder:** In 2012, 97% of the large air carrier aircraft that departed to the north from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 97% in 2011 and 95% in 2010.

The Boulder Hwy. “compliance gate” is located southeast of Russell Rd. and I-93/95, approximately 7 miles due east of the extended runway centerline of Runways 07L and 07R. This gate was also established along an existing noise abatement flight track which requests pilots to proceed runway heading to 7 nautical miles from the Las Vegas



VORTAC before turning - where large air carrier aircraft have historically been encouraged to operate. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Green Valley community, located in the City of Henderson, and older neighborhoods located north of Patrick Ln.).

**Hualapai:** In 2012, 89% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runways 25L or 25R were within 0.3 NM of the extended runway centerline, near *Hualapai Way*. This figure was not available in 2011 or 2010.

The Hualapai Way "compliance gate" is located northeast of Sunset Rd. and Hualapai Way, approximately 7 miles due west of the extended runway centerline of Runways 25L and 25R. This gate was established in May 2011 along a new noise abatement flight track which requests pilots of aircraft destined to the Nevada Test Site to proceed runway heading to 7 nautical miles from the Las Vegas VORTAC before turning. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Spanish Trail community and the Summerlin South community).

**Eastern:** In 2012, 98% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of *Tropicana Avenue & Eastern Avenue*. This figure was 97% in 2011 and 98% in 2010.

The Eastern Ave. "compliance gate" is located at Tropicana Ave. and Eastern Ave, approximately 2 miles due west of the their initial departure route. This gate was also established along an existing noise abatement flight track which requests helicopter pilots to proceed along the centerline of Tropicana Ave. until 10 nautical miles from the Las Vegas VORTAC before turning. This noise abatement flight track avoids communities impacted by helicopters located north and south of the corridor.

**Hollywood:** In 2012, 99% of the touring helicopters returning from areas east of the Las Vegas Valley were within 500 feet of the intersection of *Charleston Boulevard & Hollywood Boulevard*. This figure was 96% in 2011 and 95% in 2010.

The Hollywood Blvd. "compliance gate" is located at Charleston Blvd. and Los Feliz St., where their initial arrival route begins over the urbanized area of the Las Vegas Valley. This gate was also established along an existing noise abatement flight track which requests helicopter pilots to proceed along the centerline of Charleston Blvd. This noise abatement flight track avoids communities impacted by helicopters located north and south of the corridor.

**Stratosphere:** In 2012, 88% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 77% in 2011 and 64% in 2010.

The Stratosphere Tower "compliance gate" is located northeast of Sahara Avenue and Las Vegas Blvd., where an important turn in their fly-quietly routing structure begins near a historic portion of the urbanized area of the Las Vegas Valley.

The information denoted in this monthly summary represents **typical** residential complaints, flight activity, fleet mix, and gate compliance.

**May 2012:** 39 total complaints - a 22% increase from 2011 and a 41% decrease from 2010. On average, each caller (or household) issued 2.4 calls. The most calls received from one household totaled 9.

Calls by Community - (Exhibits 1 and 3)

**Majority (more than 50%):** (Not applicable.)

**Minority (between 10% and 50%):** The **City of Henderson** community issued 15 calls (38%). (See April 2012 synopsis of typical aircraft overflight impacts on this community.)

The **Spring Valley** community issued 10 calls (26%). (See April 2012 synopsis of typical aircraft overflight impacts on this community.)

The **Paradise and Winchester** communities issued 7 calls (18%). (See April 2012 synopsis of typical aircraft overflight impacts on this community.)

**Repeat Caller Impact:** Two households issued 41% (16 calls) of all the calls received in May 2012.

Calls by Operation - (Exhibit 2)

- LAS:** 59% of the total calls received were due to **LAS** fixed-wing operations.
- 41% were due to departures to the north from Runways 01L and 01R (56% from one household).
- VGT:** 3% of the total calls received were due to **VGT** fixed-wing operations.
- HND:** 5% of the total calls received were due to **HND** fixed-wing operations.
- Helis:** 33% of the total calls received were due to **helicopter** operations.
- 54% from one household).

LAS Operations & Runway Use by **Large Air Carriers** - (Exhibit 4)

- Overall:** 440 daily *departures*<sup>7</sup> – a 9% decrease from 2011 and 1% decrease from 2010.
- 55% of departures were to the west, 21% north, 14% east, and 9% south.
- 483 daily *arrivals* – no change from 2011 and 4% increase from 2010.
- 70% of arrivals were from the east, 13% north, 13% south, and 4% from the west.
- Daytime:** 374 daily *departures*<sup>8</sup> – a 10% decrease from 2011 and 4% decrease from 2010.
- 51% of departures were to the west, 22% north, 17% east, and 10% south.
- 426 daily *arrivals* – no change from 2011 and a 2% increase from 2010.
- 68% of arrivals were from the east, 14% south, 13% north, and 5% from the west.
- Nighttime:** 66 daily *departures*<sup>9</sup> – a 3% decrease from 2011 and 20% increase from 2010.
- 78% of departures were to the west, 16% north, 5% south, and 1% east.
- 57 daily *arrivals* – no change from 2011 and a 24% increase from 2010.
- 82% of arrivals were from the east, 13% north, and 5% from the south.

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<sup>7</sup> See footnote #1.

<sup>8</sup> See footnote #1.

<sup>9</sup> See footnote #1.

**Daytime vs. Nighttime:** Approximately 85% of all *departures* and 88% of all *arrivals* occurred during the daytime hours. As stated in the April analysis, historically these percentages have been approximately 80%. Many of the traffic reductions at LAS are occurring during the nighttime hours.

LAS Operations & Runway Use by **Non-Large Air Carriers** - (Exhibit 5)

**Overall:** 90 daily *departures*<sup>10</sup> – a 16% decrease from 2011 and 4% decrease from 2010.  
▪ 49% of departures were to the south, 25% north, 16% east, and 11% west.  
107 daily *arrivals* – a 1% decrease from 2011 and no change from 2010.  
▪ 53% of arrivals were from the north, 21% south, 18% east, and 8% west.

**Daytime:** 83 daily *departures*<sup>11</sup> – a 16% decrease from 2011 and a 3% decrease from 2010.  
▪ 48% of departures were to the south, 25% north, 17% east, and 10% west.  
101 daily *arrivals* – no change from 2011 and a 1% increase from 2010.  
▪ 52% of arrivals were from the north, 22% south, 18% east, and 8% west.

**Nighttime:** 8 daily *departures*<sup>12</sup> – a 14% decrease from 2011 and a 14% decrease from 2010.  
▪ 61% of departures were to the south, 19% north, 19% west, and 1% east.  
7 daily *arrivals* – a 15% decrease from 2011 and a 3% decrease from 2010.  
▪ 69% of arrivals were from the north, 15% south, 15% east, and 1% west.

**Daytime vs. Nighttime:** Approximately 92% of all *departures* and 94% of all *arrivals* occurred during the daytime hours.

Operations by Corridor for **Helicopter Tours** - (Exhibit 6)

**Tropicana:** 112 daily *departures* – a 9% decrease from 2011 and a 1% decrease from 2010.

**Charleston:** 112 daily *arrivals* - an 8% decrease from 2011 and a 1% increase from 2010.

**Strip:** 46 daily *touch and go's* - a 9% increase from 2011 and a 44% increase from 2010.

**Daytime vs. Nighttime:** Approximately 94% of all helicopter tour operations occurred during the daytime hours.

LAS Fleet Mix for All Aircraft Types - (Exhibit 7)

**Heavies:** **Very large** air carrier turbine-driven aircraft (those weighing 300,000 lbs. or more) accounted for 1% of the daily traffic.

**Large:** **Large** air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 63% of the daily traffic.

**Medium:** **Medium** turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 1% of the daily traffic.

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<sup>10</sup> See footnote #1.

<sup>11</sup> See footnote #1.

<sup>12</sup> See footnote #1.



**Small:** *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 8% of the daily traffic.

**Military:** *Military* turbine-driven aircraft accounted for less than 1% of the daily traffic.

**Non-Jet:** *Piston-driven* aircraft and unassigned aircraft types accounted for 5% of the daily traffic.

**Helos:** *Touring helicopters* accounted for 21% of the daily traffic.

**Noisier Aircraft Types:** The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for less than one operation per day.

#### LAS General Departure Direction for Large Aircraft - (Exhibit 8)

**Primary:** In 2012, 55% departed to the *west* (from LAS's primary departure runways). This figure was 83% in 2011 and 63% in 2010.

**Secondary:** In 2012, 9% departed to the *south* (from LAS's secondary departure runways). This figure was 4% in 2011 and 10% in 2010.

**Alternate 1:** In 2012, 21% departed to the *north* (from LAS's alternate departure runways). This figure was 11% in 2011 and 22% in 2010. Northerly winds on 14 of the 31 days resulted in an increased percentage of departures to the north.

**Alternate 2:** In 2012, 14% departed to the *east* (from LAS's alternate departure runways). This figure was 3% in 2011 and 5% in 2010.

#### Gate Compliance for Large Aircraft and Helicopters - (Exhibit 9)

**SVHS:** In 2012, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 25L or 25R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 94% in 2011 and 91% in 2010. (See April 2012 synopsis for specific location of the SVHS gate.)

**Peace:** In 2012, 94% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 25L or 25R and made a right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 94% in 2011 and 90% in 2010. (See April 2012 synopsis for specific location of the Peace gate.)

**Pebble:** In 2012, 97% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 94% in 2011 and 94% in 2010. (See April 2012 synopsis for specific location of the Pebble gate.)

**UNLV:** In 2012, 84% of the large air carrier aircraft that departed to the north from Runways 01L or 01R were within 0.3 NM of the *UNLV sports complex*. This figure was 77% in 2011 and 35% in 2010. (See April 2012 synopsis for specific location of the UNLV gate.)

**Boulder:** In 2012, 97% of the large air carrier aircraft that departed to the north from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*.

This figure was 98% in 2011 and 94% in 2010. (See April 2012 synopsis for specific location of the Boulder Hwy. gate.)

**Hualapai:** In 2012, 91% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runways 25L or 25R were within 0.3 NM of the extended runway centerline, near *Hualapai Way*. This figure was not available in 2011 or 2010. (See April 2012 synopsis for specific location of the Hualapai gate.)

**Eastern:** In 2012, 98% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of *Tropicana Avenue & Eastern Avenue*. This figure was 97% in 2011 and 97% in 2010. (See April 2012 synopsis for specific location of the Eastern gate.)

**Hollywood:** In 2012, 99% of the touring helicopters returning from areas east of the Las Vegas Valley were within 500 feet of the intersection of *Charleston Boulevard & Hollywood Boulevard*. This figure was 95% in 2011 and 95% in 2010. (See April 2012 synopsis for specific location of the Hollywood gate.)

**Stratosphere:** In 2012, 72% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 72% in 2011 and 58% in 2010. (See April 2012 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **typical** residential complaints, flight activity, fleet mix, and gate compliance, with the exception of heavy departures to the north.

**June 2012:** 18 total complaints - no change from 2011 and a 33% decrease from 2010. On average, each caller (or household) issued 1.5 calls. The most calls received from one household totaled 5.

#### Calls by Community - (Exhibits 1 and 3)

**Majority (more than 50%):** The *City of Henderson* community issued 10 calls (56%). (See April 2012 synopsis of typical aircraft overflight impacts on this community.)

**Minority (between 10% and 50%):** The *Paradise and Winchester* communities issued 7 calls (39%). (See April 2012 synopsis of typical aircraft overflight impacts on this community.)

**Repeat Caller Impact:** One household issued 28% (5 calls) of all the calls received in June 2012.

#### Calls by Operation - (Exhibit 2)

**LAS:** 56% of the total calls received were due to *LAS* fixed-wing operations.  
▪ 22% were due to departures to the east from Runways 07L and 07R.

**VGT:** 0% of the total calls received were due to *VGT* fixed-wing operations.

**HND:** 6% of the total calls received were due to *HND* fixed-wing operations.

**Helis:** 39% of the total calls received were due to *helicopter* operations (71% from one household).

LAS Operations & Runway Use by Large Air Carriers - (Exhibits 4)

- Overall:** 456 daily *departures*<sup>13</sup> – a 7% decrease from 2011 and a 1% decrease from 2010.  
▪ 65% of departures were to the west, 21% east, 8% south, and 6% north.  
484 daily *arrivals* – a 2% decrease from 2011 and 3% increase from 2010.  
▪ 67% of arrivals were from the east, 19% north, 8% west and 6% south.
- Daytime:** 377 daily *departures*<sup>14</sup> – a 9% decrease from 2011 and 6% decrease from 2010.  
▪ 60% of departures were to the west, 25% east, 9% south, and 6% north.  
420 daily *arrivals* – a 2% decrease from 2011 and no change from 2010.  
▪ 65% of arrivals were from the east, 20% north, 9% west, and 6% south.
- Nighttime:** 79 daily *departures*<sup>15</sup> – a 3% increase from 2011 and 30% increase from 2010.  
▪ 89% of departures were to the west, 6% north, 4% south, and 2% east.  
64 daily *arrivals* – no change from 2011 and 31% increase from 2010.  
▪ 83% of arrivals were from the east, 15% from the north, and 2% from the south.

**Daytime vs. Nighttime:** Approximately 83% of all *departures* and 87% of all *arrivals* occurred during the daytime hours.

LAS Operations & Runway Use by Non-Large Air Carriers - (Exhibit 5)

- Overall:** 77 daily *departures*<sup>16</sup> – a 15% decrease from 2011 and a 1% decrease from 2010.  
▪ 55% of departures were to the south, 24% east, 13% west, and 9% north.  
91 daily *arrivals* – a 3% decrease from 2011 and a 4% increase from 2010.  
▪ 70% of arrivals were from the north, 11% west, 10% east, and 9% south.
- Daytime:** 69 daily *departures*<sup>17</sup> – a 15% decrease from 2011 and a 1% increase from 2010.  
▪ 54% of departures were to the south, 26% east, 12% west, and 9% north.  
85 daily *arrivals* – a 2% decrease from 2011 and a 4% increase from 2010.  
▪ 69% of arrivals were from the north, 12% west, 10% east, and 9% south.
- Nighttime:** 8 daily *departures*<sup>18</sup> – a 12% decrease from 2011 and a 12% decrease from 2010.  
▪ 67% of departures were to the south, 20% west, 11% north, and 1% east.  
6 daily *arrivals* – a 16% decrease from 2011 and a 2% decrease from 2010.  
▪ 82% of arrivals were from the north, 11% east, 6% south, and 1% west.

**Daytime vs. Nighttime:** Approximately 90% of all *departures* and 94% of all *arrivals* occurred during the daytime hours.

Operations by Corridor for Helicopter Tours - (Exhibit 6)

**Tropicana:** 112 daily *departures* – a 13% decrease from 2011 and a 8% increase from 2010.

---

<sup>13</sup> See footnote #1.

<sup>14</sup> See footnote #1.

<sup>15</sup> See footnote #1.

<sup>16</sup> See footnote #1.

<sup>17</sup> See footnote #1.

<sup>18</sup> See footnote #1.

**Charleston:** 112 daily *arrivals* - a 13% decrease from 2011 and a 9% increase from 2010.

**Strip:** 50 daily *touch and go's* - an 8% increase from 2011 and a 37% increase from 2010.

**Daytime vs. Nighttime:** Approximately 91% of all helicopter tour operations occurred during the daytime hours.

LAS Fleet Mix for All Aircraft Types - (Exhibit 7)

**Heavies:** *Very large* air carrier turbine-driven aircraft (those weighing 300,000 lbs. or more) accounted for 2% of the daily traffic.

**Large:** *Large* air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 64% of the daily traffic.

**Medium:** *Medium* turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 1% of the daily traffic.

**Small:** *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 7% of the daily traffic.

**Military:** *Military* turbine-driven aircraft accounted for less than 1% of the daily traffic.

**Non-Jet:** *Piston-driven* aircraft and unassigned aircraft types accounted for 4% of the daily traffic.

**Helos:** *Touring helicopters* accounted for 22% of the daily traffic.

**Noisier Aircraft Types:** The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for less than one operation per day.

LAS General Departure Direction for Large Aircraft - (Exhibit 8)

**Primary:** In 2012, 65% departed to the *west* (from LAS's primary departure runways). This figure was 80% in 2011 and 64% in 2010.

**Secondary:** In 2012, 8% departed to the *south* (from LAS's secondary departure runways). This figure was 5% in 2011 and 6% in 2010.

**Alternate 1:** In 2012, 6% departed to the *north* (from LAS's alternate departure runways). This figure was 3% in 2011 and 9% in 2010.

**Alternate 2:** In 2012, 21% departed to the *east* (from LAS's alternate departure runways). This figure was less than 12% in 2011 and 21% in 2010. Temperatures in excess of 100 degrees on 22 of the 30 days resulted in increased departures to the east.

Gate Compliance for Large Aircraft and Helicopters - (Exhibit 9)

**SVHS:** In 2012, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 25L or 25R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 94% in 2011 and 91% in 2010. (See April 2012 synopsis for specific location of the SVHS gate.)

- Peace:** In 2012, 94% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 25L or 25R and made a right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 93% in 2011 and 89% in 2010. (See April 2012 synopsis for specific location of the Peace gate.)
- Pebble:** In 2012, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 96% in 2011 and 92% in 2010. (See April 2012 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2012, 82% of the large air carrier aircraft that departed to the north from Runways 01L or 01R were within 0.3 NM of the *UNLV sports complex*. This figure was 80% in 2011 and 48% in 2010. (See April 2012 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2012, 97% of the large air carrier aircraft that departed to the north from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 96% in 2011 and 97% in 2010. (See April 2012 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2012, 94% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runways 25L or 25R were within 0.3 NM of the extended runway centerline, near *Hualapai Way*. This figure was not available in 2011 or 2010. (See April 2012 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2012, 98% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of *Tropicana Avenue & Eastern Avenue*. This figure was 96% in 2011 and 95% in 2010. (See April 2012 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2012, 99% of the touring helicopters returning from areas east of the Las Vegas Valley were within 500 feet of the intersection of *Charleston Boulevard & Hollywood Boulevard*. This figure was 97% in 2011 and 96% in 2010. (See April 2012 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2012, 70% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 77% in 2011 and 49% in 2010. (See April 2012 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **typical** residential complaints, flight activity, fleet mix, and gate compliance with the exception of increased departures to the east.

#### **Other Notable Issues**

**Helicopter Operator Users Meeting:** On June 14, 2012, DOA staff members met with FAA, local helicopter tour operators, and airline staff to discuss noise complaints tied to helicopter operations, route compliance, and operational growth.



**Terminal 3 Grand Opening/New McCarran Website:** On June 27, 2012, the DOA welcomed the opening of the new Terminal 3. Built over the course of five years, at a cost of \$2.4 billion dollars, this terminal will provide passenger service through seven international and seven domestic gates. This 1.9 million square foot facility enables the DOA to better service passengers traveling to and from international destinations. In addition to the grand opening, the DOA launched its newly refined webpage. The new webpage can be accessed at: <https://www.mccarran.com/>. Visitors to the webpage can access a variety of useful information, to include noise abatement measures implemented by the DOA. Just click on the link labeled "Doing Business", located at the bottom of the webpage.

**Safety and Security Threats:** Any threats to DOA staff or an aircraft in flight are taken seriously, and such threats will be forwarded to the appropriate law enforcement agencies.

GCS:jj

Attachments

# Airport Noise Report

June 20, 2012

Page 15 of 30

Distribution: Commissioner Brager, Chair  
Commissioner Sisolak, Vice-Chair  
Commissioner Collins  
Commissioner Weekly  
Rosemary Vassiliadis  
Donald G. Burnette  
Ralph LePore  
Harry Waters  
Bob Kingston  
Teresa Motley  
Cecil Johnson  
Alan Pinkerton  
Dan Kezar  
Linda Healey  
Tucker Field  
Michael Li  
Maureen Merry-Lamoureux

Stephen J. Lloyd (FAA TRACON)  
Jim Burgan (FAA ATC)  
Jon Holman (FAA ATC)  
Charlie Halterman (HND Tower)  
Peter Yiakof (FAA FSDO)  
Ellington Bristol (COH)  
Josh Reid (COH)  
Elizabeth Fretwell (CLV)  
Vicki Mayes (CBC)  
Mayor Carolyn Goodman (CLV)  
Councilman Bob Beers (CLV)  
Councilman Bob Coffin (CLV)  
Councilwoman L. Tarkanian (CLV)  
Mayor Pro Tem S. Anthony (CLV)  
Councilman Ricki Barlow (CLV)  
Councilman Steven Ross (CLV)  
Bradford Jerbic, (CLV)  
Mayor Roger Tobler (CBC)  
Brok Armantrout (CBC)  
David Parks (Nevada State Assembly)  
J. Gordon Arkin (Foley & Lardner)  
John Williams (Ricondo)  
Douglas Pomeroy (FAA ADO)  
La Nea M. Conner (Boeing)  
Neal Phillips (Metro Wash. Air Auth.)  
Frank Fiori (CNLV)  
Michelle Plawecki (Detroit Metro Airport)  
James Davies (Sky Harbor Airport)  
Karen Everitt (Dallas City Hall)  
Thomas Miller (Nellis AFB)  
Raymond Chiang (FAA)  
Stephanie Garcia-Vause (COH)  
Andrew Powell (COH)

Commissioner Giunchigliani  
Commissioner Brown  
Commissioner Scow  
Joe Kubacki  
E. Lee Thomson  
Sam Ingalls  
Chris Jones  
Dawn Holden  
Barbara Bolton  
Jeff Jacquart  
Charlie Hall  
Ben Czyzewski  
Dennis Anderson  
Tom Peterson  
Mark Silverstein  
Donna Bergstrom  
Benedict Czyzewski

James Erbeck (CLV)  
Wayne M. Niimi (FAA ATC)  
Paul Alukonis (FAA FSDO)  
Nancy Myrick (FAA Tower Manager, NLVA)  
Sydney Lowe (University Libraries)  
Bob Brown (BBA)  
Lisa Butterfield (Reno-Tahoe Airport)  
Andrea Christensen (Denver Airport)  
Jennifer Lewis (Scottsdale Airport)  
Frank Iacovino (Mass Port Authority)  
Jon Collette (Philadelphia Airport)  
Robert Butler (Papillon Helicopters)  
Christine Gerencher (American Airlines)  
Bert Ganoung (SFO)  
Nigel Turner (Heli USA Airways)  
San Diego Airport Noise Management  
Jeannie Denham (Citizen)  
Judge Bob Johnston (Citizen)  
Roy Fuhrmann (Metro Airports Commission)  
Tom Schaus (Sundance Helicopters)  
Brooke Satern (Port of Portland)  
Gary Brodt (Citizen)  
Capt. Amanda Ferrell (Nellis AFB)  
James P. Callahan (Nellis AFB)  
Stan Shepherd (SEATAC)  
Eric Sheng (Long Beach Airport)  
Jason Schwartz (Portland Airport)  
Todd Lobato (Nellis AFB)  
William Olivieri (Citizen)  
Samuel Carter (ITT)  
Steven Peacock (Dallas City Hall)  
Jacob Snow (COH)

### Exhibit 1: Noise Complaint Calls by Community\* - April 2012

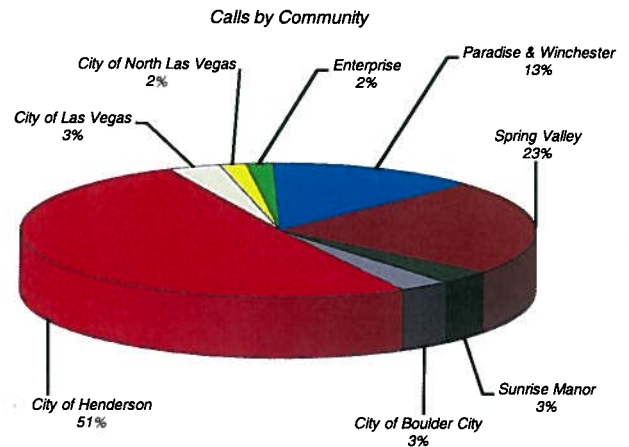
Community	No. of Calls in 2012	No. of Callers in 2012	No. of Calls in 2011	No. of Calls in 2010
City of Boulder City	2	2		
City of Henderson	31	4	8	5
City of Las Vegas	2	2	7	11
City of North Las Vegas	1	1	1	2
Enterprise	1	1	7	12
Lone Mountain				
Paradise & Winchester	8	7	4	3
Spring Valley	14	6	1	23
Summerlin South			1	1
Sunrise Manor	2	1	1	3
Whitney			2	
Location unknown				
<b>Overall Total</b>	<b>61</b>	<b>24</b>	<b>32</b>	<b>60</b>

**Difference between 2012 and 2011 Total Calls:** 91%

**Difference between 2012 and 2010 Total Calls:** 2%

**Average Number of Calls per Caller:** 2.5

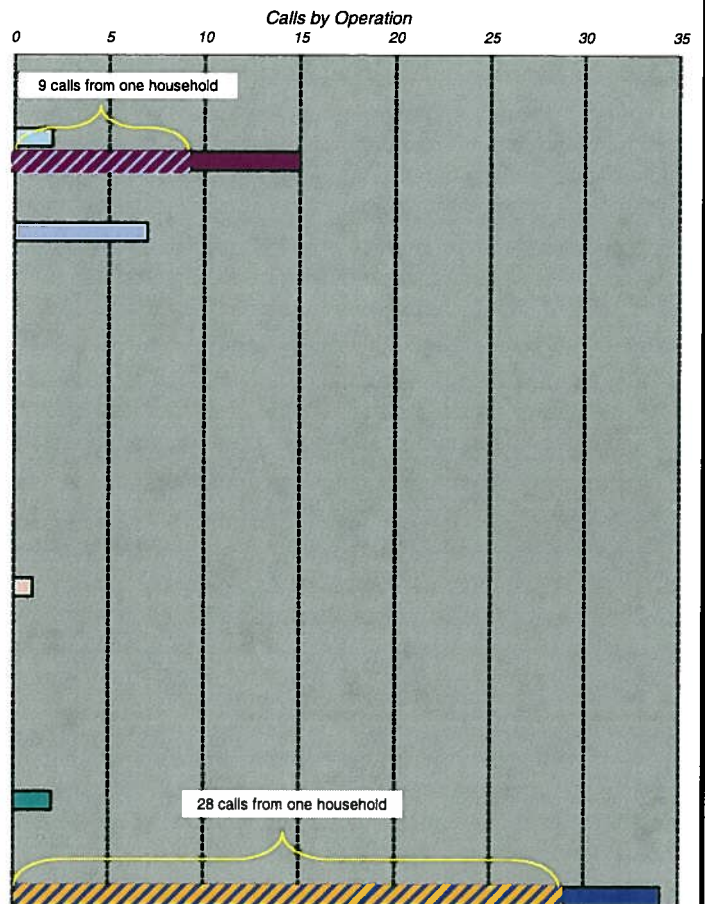
**Most calls received from one household:** 28



\* See map on reverse side for community boundaries and location of known noise complaints.

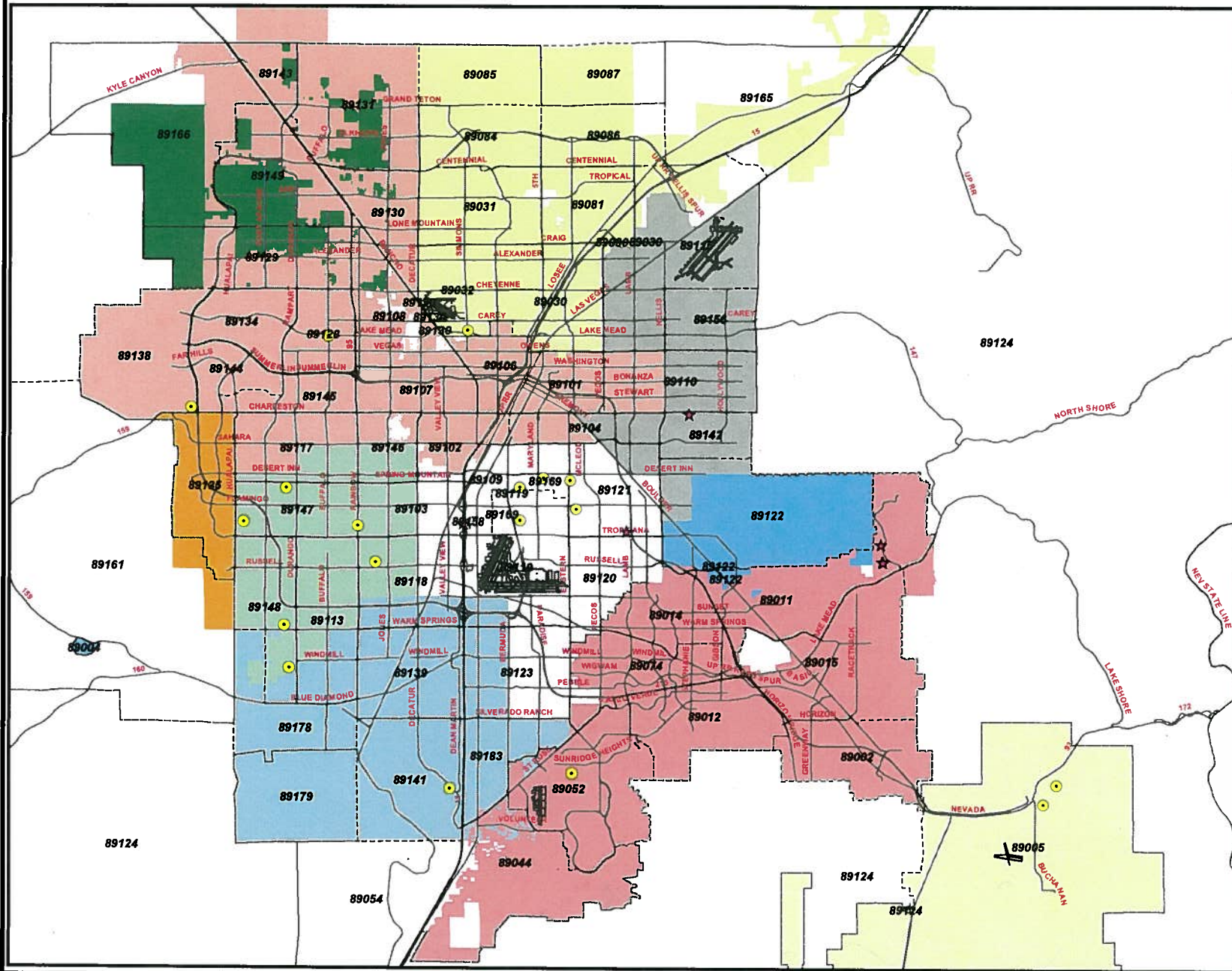
### Exhibit 2: Noise Complaint Calls by Type of Operation - April 2012

Operation	No. of Calls in 2012	Percent of Overall Total	No. of Calls in 2011	No. of Calls in 2010
LAS 01R/L Arrivals			3	
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	2	3.3%	2	
LAS 01R/L Departures	15	24.6%	3	27
LAS 07R/L Departures			3	
LAS 19R/L Departures			5	6
LAS 25R/L Departures	7	11.5%	7	19
LAS Run-ups				
LAS GA				
LAS Other				
<b>LAS Total</b>	<b>24</b>	<b>39.3%</b>	<b>23</b>	<b>52</b>
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA	1	1.6%		2
VGT Other				
<b>VGT Total</b>	<b>1</b>	<b>1.6%</b>	<b>0</b>	<b>2</b>
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	2	3.3%	4	1
HND Other				
<b>HND Total</b>	<b>2</b>	<b>3.3%</b>	<b>4</b>	<b>1</b>
<b>Helicopters**</b>	<b>34</b>	<b>55.7%</b>	<b>5</b>	<b>5</b>
<b>Overall Total</b>	<b>61</b>	<b>100%</b>	<b>32</b>	<b>60</b>



\*\* Note that helicopter noise complaints are not tied to a specific facility since the operation cannot always be associated to a specific airport. Additionally, helicopter calls do not include those associated with operations conducted by the Metropolitan Police Department or those associated with operations conducted at non-DOA facilities.

### Exhibit 3: Aircraft Noise Complaints by Community - April 2012




#### Legend


April 2012  
Total Complaints: 61

- Aircraft Complaints Received 27  
Mapped 27
- ★ Helicopter Complaints Received 34  
Mapped 34
- Major Streets
- Airports
- - - Zip Code Boundaries
- Unincorporated Clark County
- Boulder City
- Whitney
- Henderson
- Las Vegas
- North Las Vegas
- Paradise/Winchester
- Summerlin
- Spring Valley
- Sunrise Manor
- Winchester
- Enterprise
- Lone Mountain

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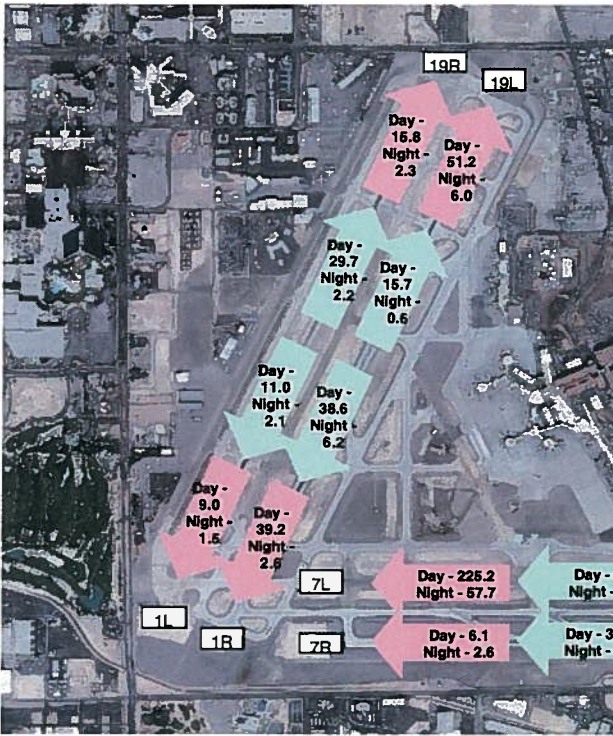
July 13, 2012  
Note: This information is for display purposes only. The liability is assumed to be the accuracy of the data submitted hereon.



H:\GIS\apps\MapServer\001\2012\_2012



### Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft\* - April 2012



Year	2012		2011		2010	
Daytime Departures	385	84%	401	85%	390	87%
Nighttime Departures	73	16%	70	15%	57	13%
<b>Total Departures</b>	<b>459</b>	<b>100%</b>	<b>471</b>	<b>100%</b>	<b>447</b>	<b>100%</b>
Daytime Arrivals	430	88%	418	88%	419	90%
Nighttime Arrivals	61	12%	58	12%	48	10%
<b>Total Arrivals</b>	<b>490</b>	<b>100%</b>	<b>476</b>	<b>100%</b>	<b>467</b>	<b>100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-3%	-4%	5%
Depts. 2012 vs 2010	3%	-1%	29%
Arrivals 2012 vs 2011	3%	3%	5%
Arrivals 2012 vs 2010	5%	3%	27%

\* Aircraft types: All aircraft with a maximum gross take off weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A340, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

### Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft\*\* - April 2012



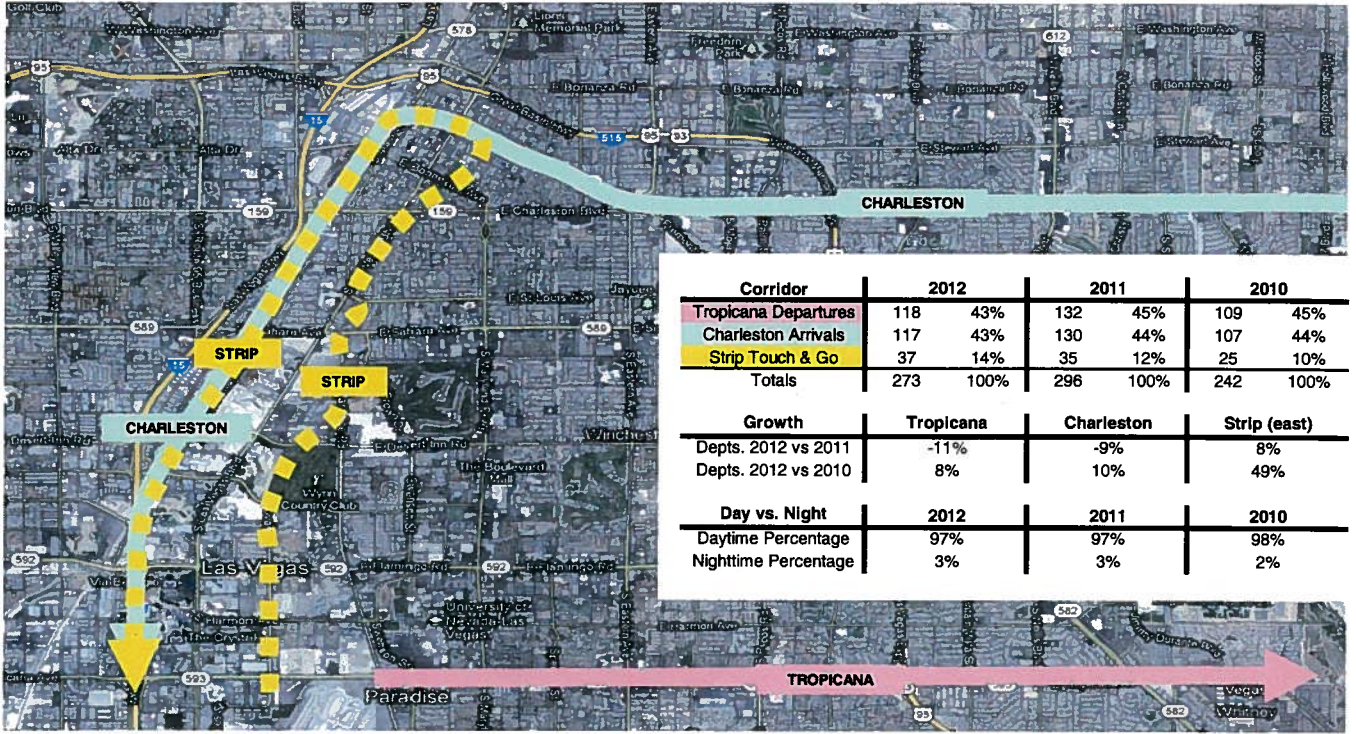
Year	2012		2011		2010	
Daytime Departures	73	92%	80	91%	74	90%
Nighttime Departures	7	8%	8	9%	8	10%
<b>Total Departures</b>	<b>79</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>82</b>	<b>100%</b>
Daytime Arrivals	87	94%	88	94%	96	94%
Nighttime Arrivals	6	6%	6	6%	6	6%
<b>Total Arrivals</b>	<b>93</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>102</b>	<b>100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-10%	-9%	-18%
Depts. 2012 vs 2010	-3%	-2%	-18%
Arrivals 2012 vs 2011	-1%	-1%	0%
Arrivals 2012 vs 2010	-9%	-10%	0%

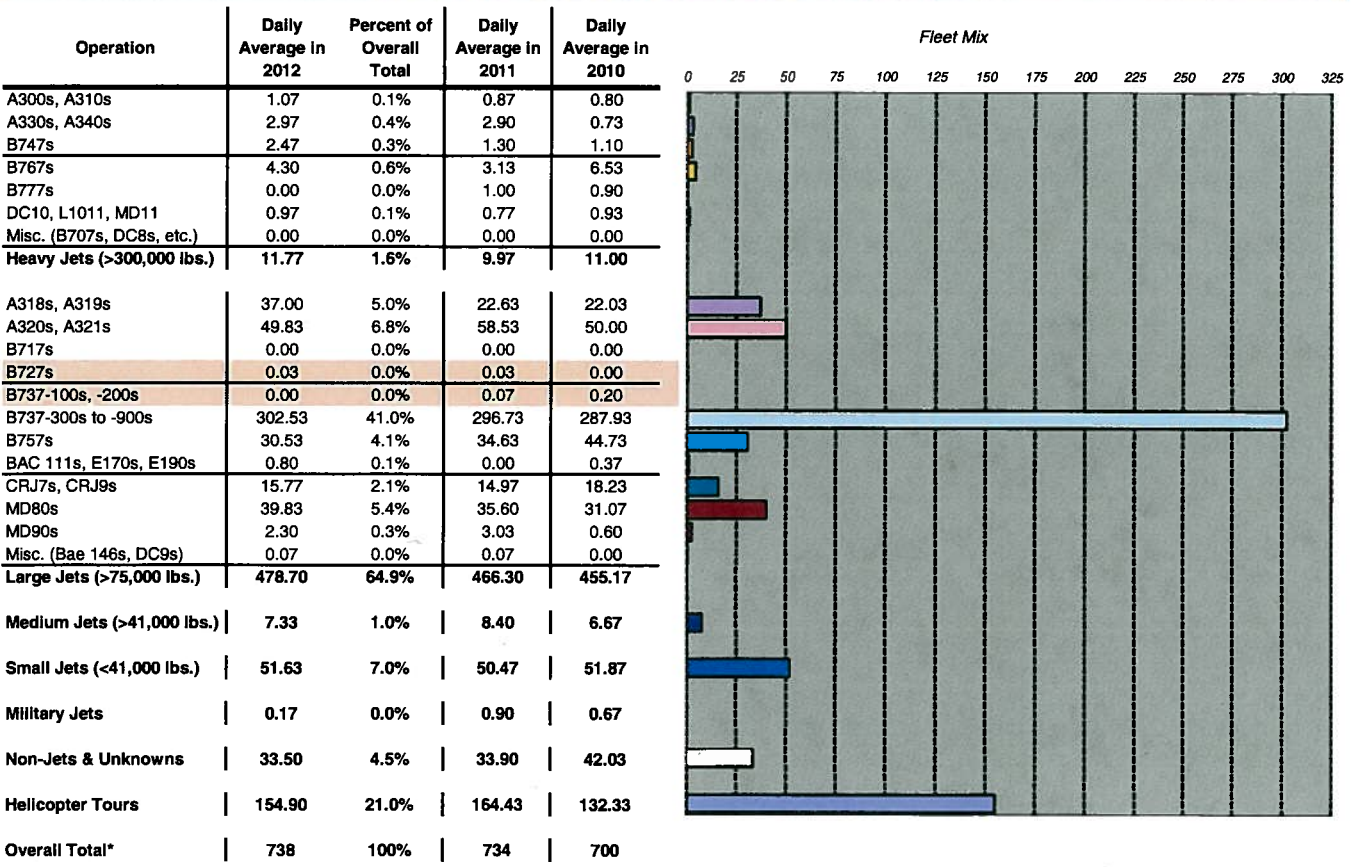
\*\* Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.



**Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - April 2012**



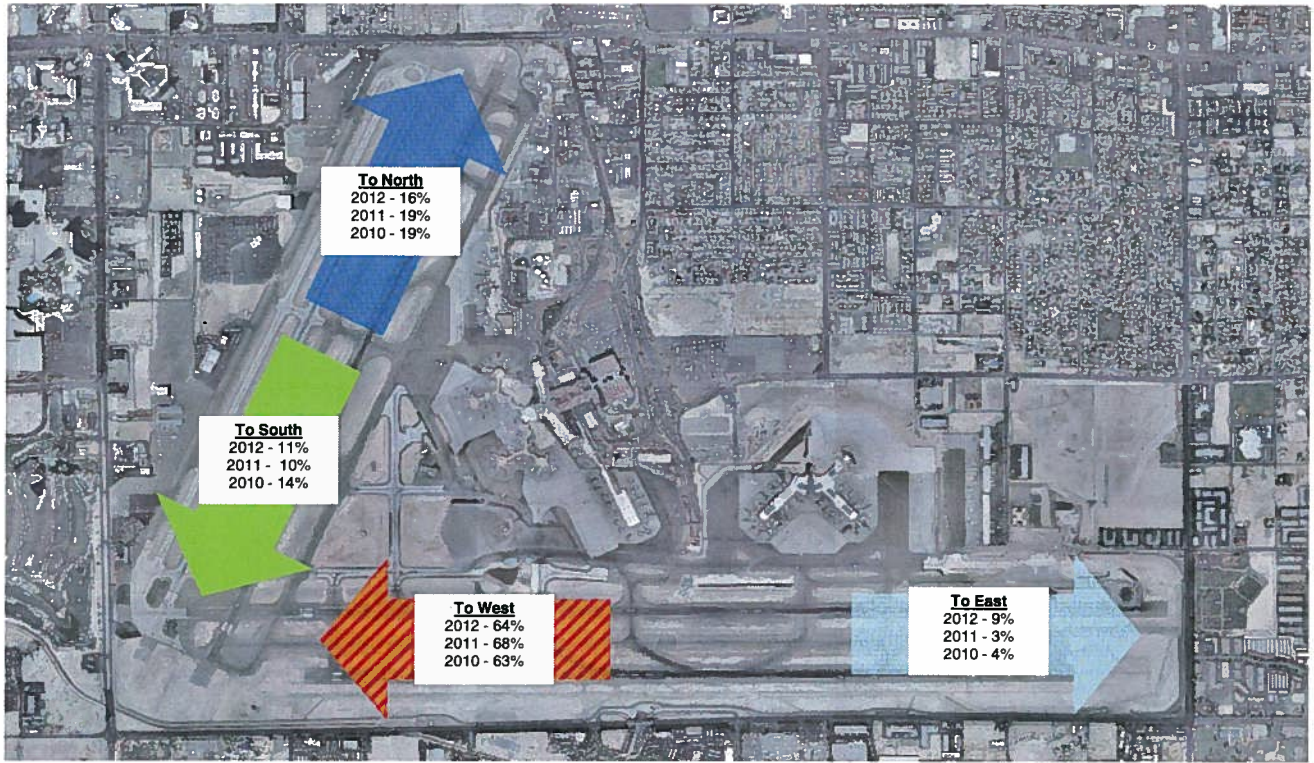
**Exhibit 7: LAS Aircraft Arrival Fleet Mix\* - April 2012**



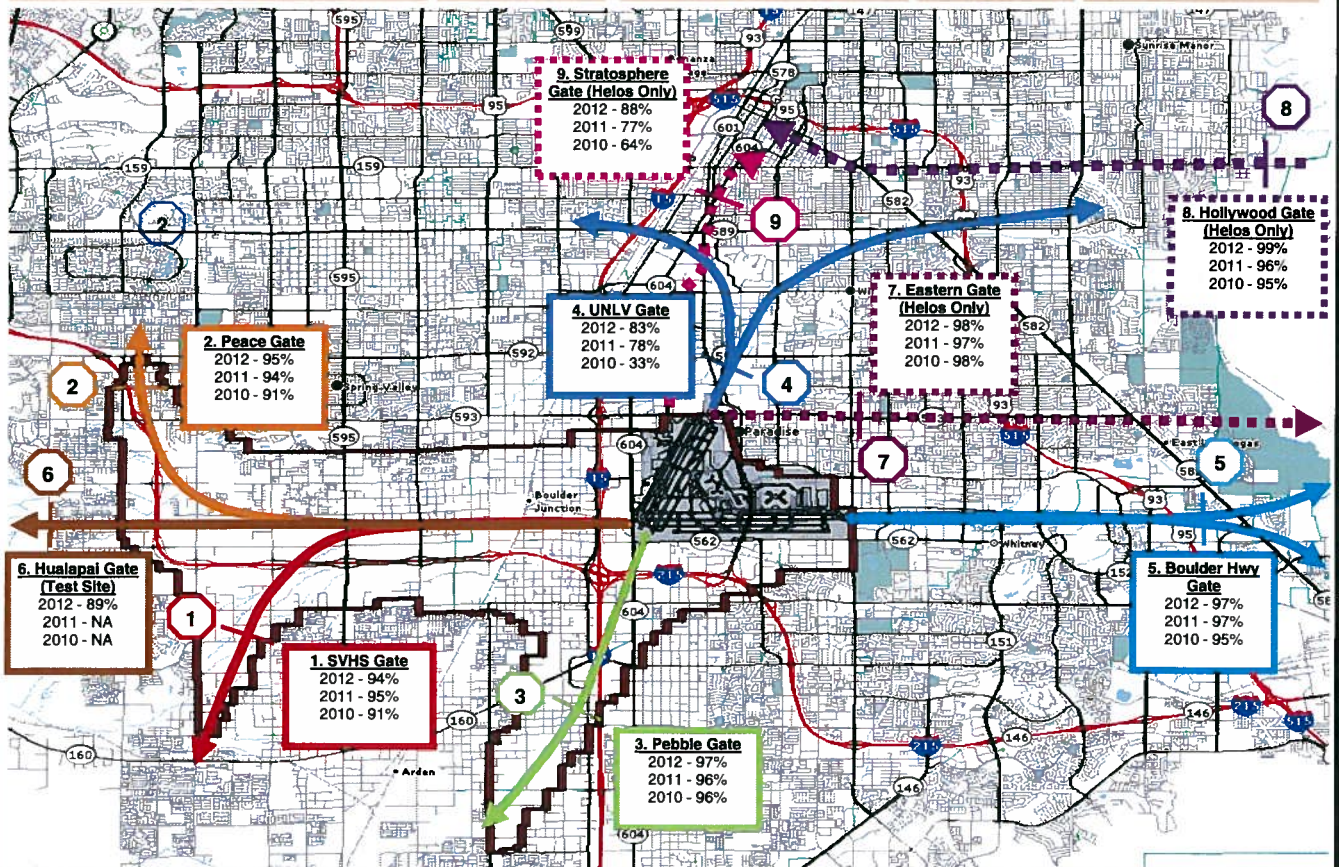
\* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.



**Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft\* - April 2012 to 2010**



**Exhibit 9: "Gate" Compliance for Large Aircraft\* & LAS Helicopter Tours - April 2012**



\* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.



### Exhibit 1: Noise Complaint Calls by Community\* - May 2012

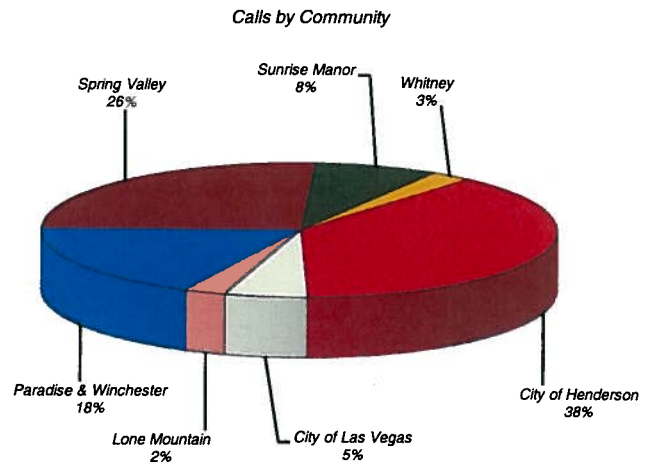
Community	No. of Calls in 2012	No. of Callers in 2012	No. of Calls in 2011	No. of Calls in 2010
City of Boulder City				1
City of Henderson	15	5	5	6
City of Las Vegas	2	1	5	14
City of North Las Vegas				
Enterprise			6	7
Lone Mountain	1	1		2
Paradise & Winchester	7	5	7	16
Spring Valley	10	2	6	19
Summerlin South				
Sunrise Manor	3	1	3	1
Whitney	1	1		
Location unknown				
<b>Overall Total</b>	<b>39</b>	<b>16</b>	<b>32</b>	<b>66</b>

**Difference between 2012 and 2011 Total Calls:** 22%

**Difference between 2012 and 2010 Total Calls:** -41%

**Average Number of Calls per Caller:** 2.4

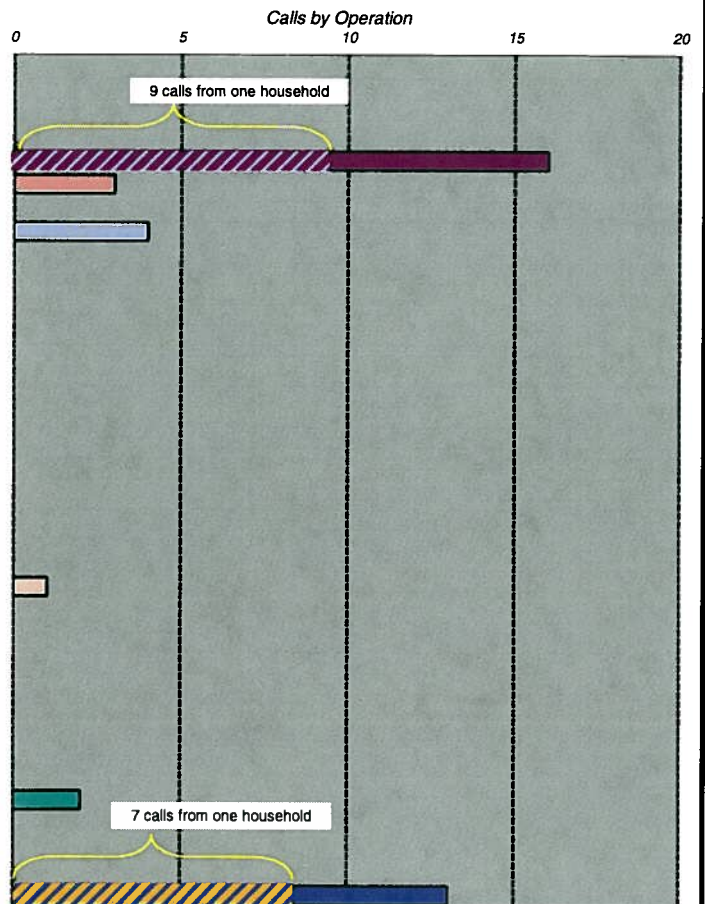
**Most calls received from one household:** 9



\* See map on reverse side for community boundaries and location of known noise complaints.

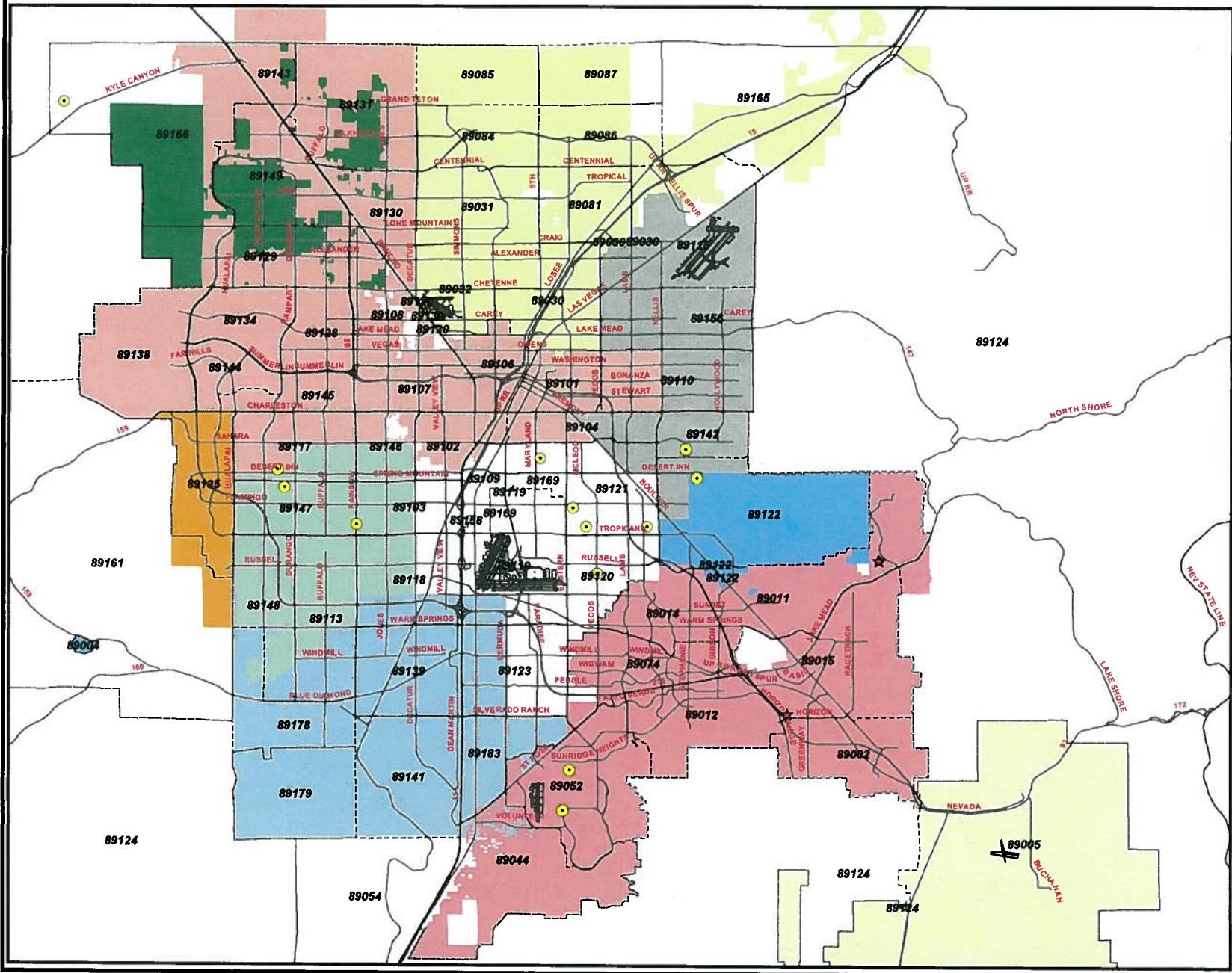
### Exhibit 2: Noise Complaint Calls by Type of Operation - May 2012

Operation	No. of Calls in 2012	Percent of Overall Total	No. of Calls in 2011	No. of Calls in 2010
LAS 01R/L Arrivals				
LAS 07R/L Arrivals			2	
LAS 19R/L Arrivals				1
LAS 25R/L Arrivals				
LAS 01R/L Departures	16	41.0%	9	31
LAS 07R/L Departures	3	7.7%		
LAS 19R/L Departures			4	4
LAS 25R/L Departures	4	10.3%	3	23
LAS Run-ups				
LAS GA				
LAS Other				
<b>LAS Total</b>	<b>23</b>	<b>59.0%</b>	<b>18</b>	<b>59</b>
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA	1	2.6%	4	
VGT Other				
<b>VGT Total</b>	<b>1</b>	<b>2.6%</b>	<b>4</b>	<b>0</b>
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	2	5.1%	3	3
HND Other				
<b>HND Total</b>	<b>2</b>	<b>5.1%</b>	<b>3</b>	<b>3</b>
<b>Helicopters**</b>	<b>13</b>	<b>33.3%</b>	<b>7</b>	<b>4</b>
<b>Overall Total</b>	<b>39</b>	<b>100%</b>	<b>32</b>	<b>66</b>



\*\* Note that helicopter noise complaints are not tied to a specific facility since the operation cannot always be associated to a specific airport. Additionally, helicopter calls do not include those associated with operations conducted by the Metropolitan Police Department or those associated with operations conducted at non-DOA facilities.

### Exhibit 3: Aircraft Noise Complaints by Community - May 2012



**Legend**


May 2012  
Total Complaints: 39

- Aircraft Complaints  
Received 26  
Mapped 26
- ★ Helicopter Complaints  
Received 13  
Mapped 13

- Major Streets
- Airports
- - - Zip Code Boundaries


- Unincorporated Clark County
- Boulder City
- Whitney
- Henderson
- Las Vegas
- North Las Vegas
- Paradise/Winchester
- Summerlin
- Spring Valley
- Sunrise Manor
- Winchester
- Enterprise
- Lone Mountain

Department of Aviation  
I.S. Division  
Geographic Information Systems



July 13, 2012

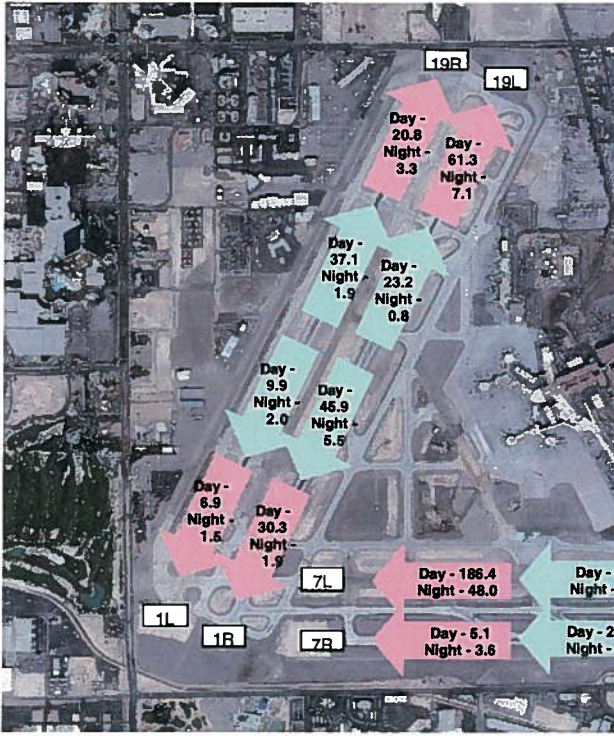
Note  
This information is for  
reference purposes only.  
No liability is assumed  
as to the accuracy of  
the data depicted on this map.



N 123 for app Air 08 West 00 1202\_2012



### Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft\* - May 2012

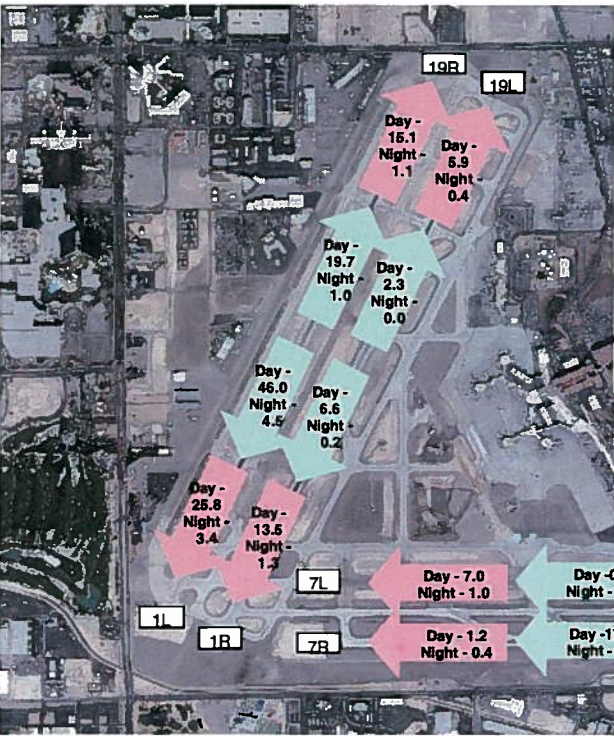


Year	2012		2011		2010	
Daytime Departures	374	85%	414	86%	389	88%
Nighttime Departures	66	15%	68	14%	55	12%
<b>Total Departures</b>	<b>440</b>	<b>100%</b>	<b>482</b>	<b>100%</b>	<b>444</b>	<b>100%</b>
Daytime Arrivals	426	88%	427	88%	417	90%
Nighttime Arrivals	57	12%	57	12%	46	10%
<b>Total Arrivals</b>	<b>483</b>	<b>100%</b>	<b>484</b>	<b>100%</b>	<b>463</b>	<b>100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-9%	-10%	-3%
Depts. 2012 vs 2010	-1%	-4%	20%
Arrivals 2012 vs 2011	0%	0%	0%
Arrivals 2012 vs 2010	4%	2%	24%

\* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A340, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

### Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft\*\* - May 2012



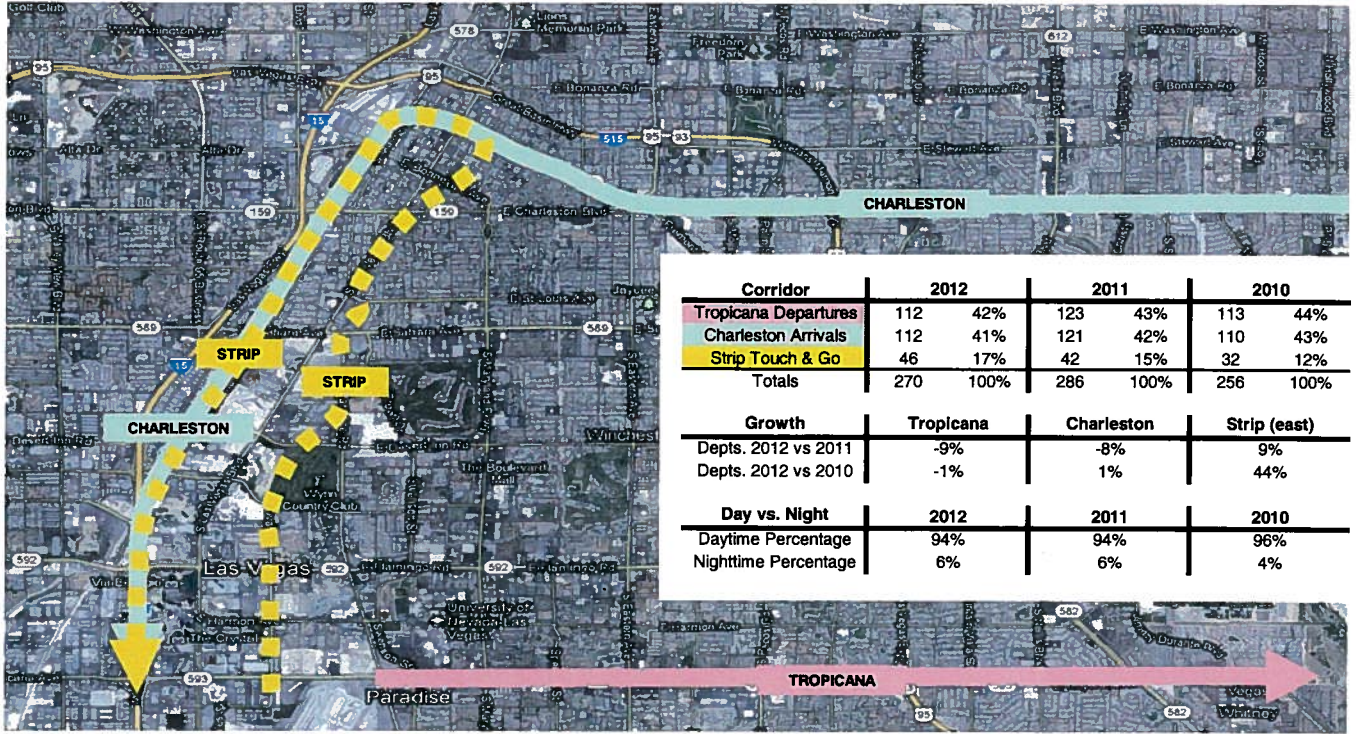
Year	2012		2011		2010	
Daytime Departures	83	91%	99	92%	85	90%
Nighttime Departures	8	9%	9	8%	9	10%
<b>Total Departures</b>	<b>90</b>	<b>100%</b>	<b>108</b>	<b>100%</b>	<b>94</b>	<b>100%</b>
Daytime Arrivals	101	94%	101	93%	100	93%
Nighttime Arrivals	7	6%	8	7%	7	7%
<b>Total Arrivals</b>	<b>107</b>	<b>100%</b>	<b>109</b>	<b>100%</b>	<b>107</b>	<b>100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-16%	-16%	-14%
Depts. 2012 vs 2010	-4%	-3%	-14%
Arrivals 2012 vs 2011	-1%	0%	-15%
Arrivals 2012 vs 2010	0%	1%	-3%

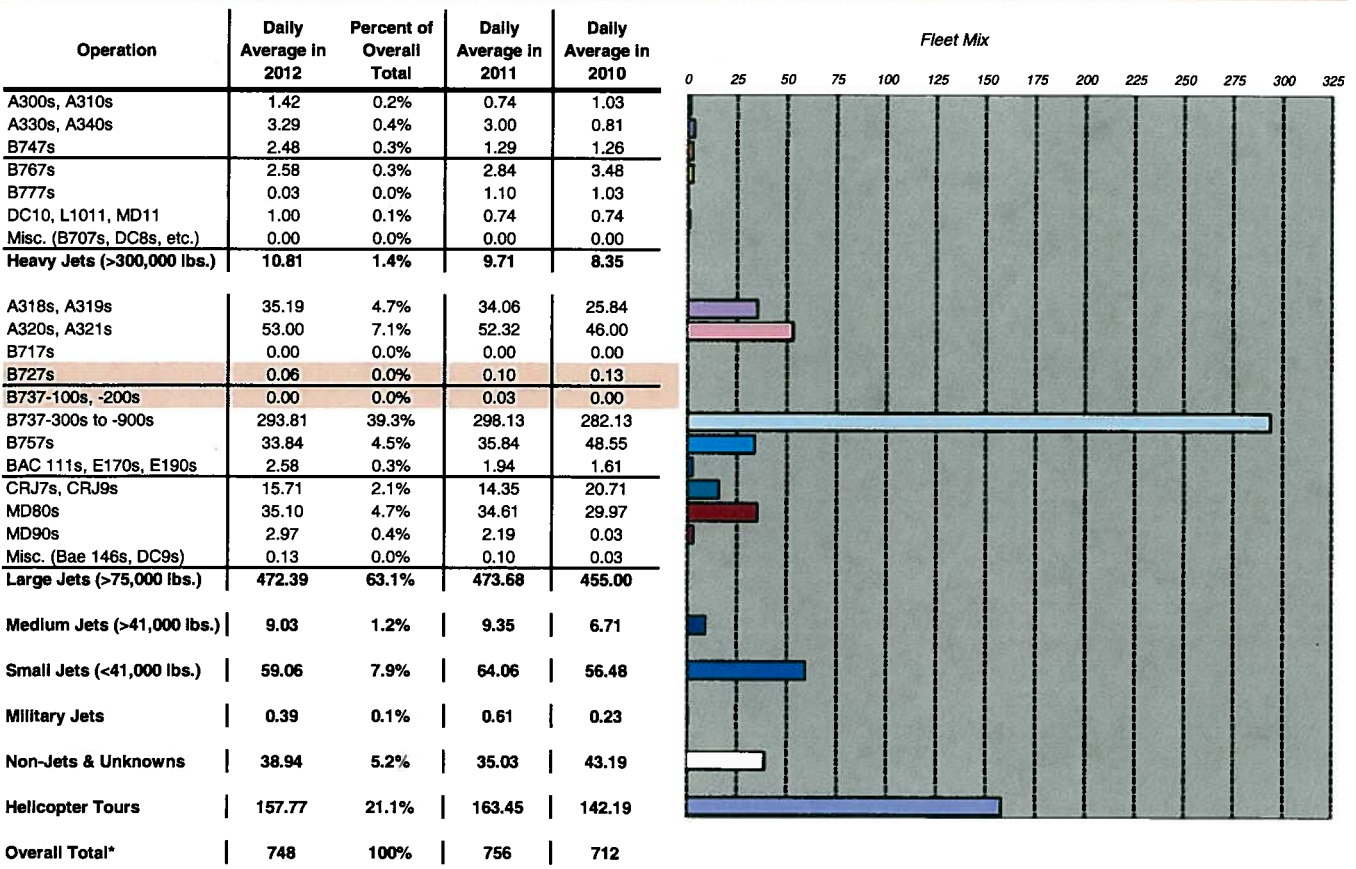
\*\* Aircraft types: All aircraft with a maximum gross take of weight less than 75,000 pounds, excluding helicopters.



### Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - May 2012



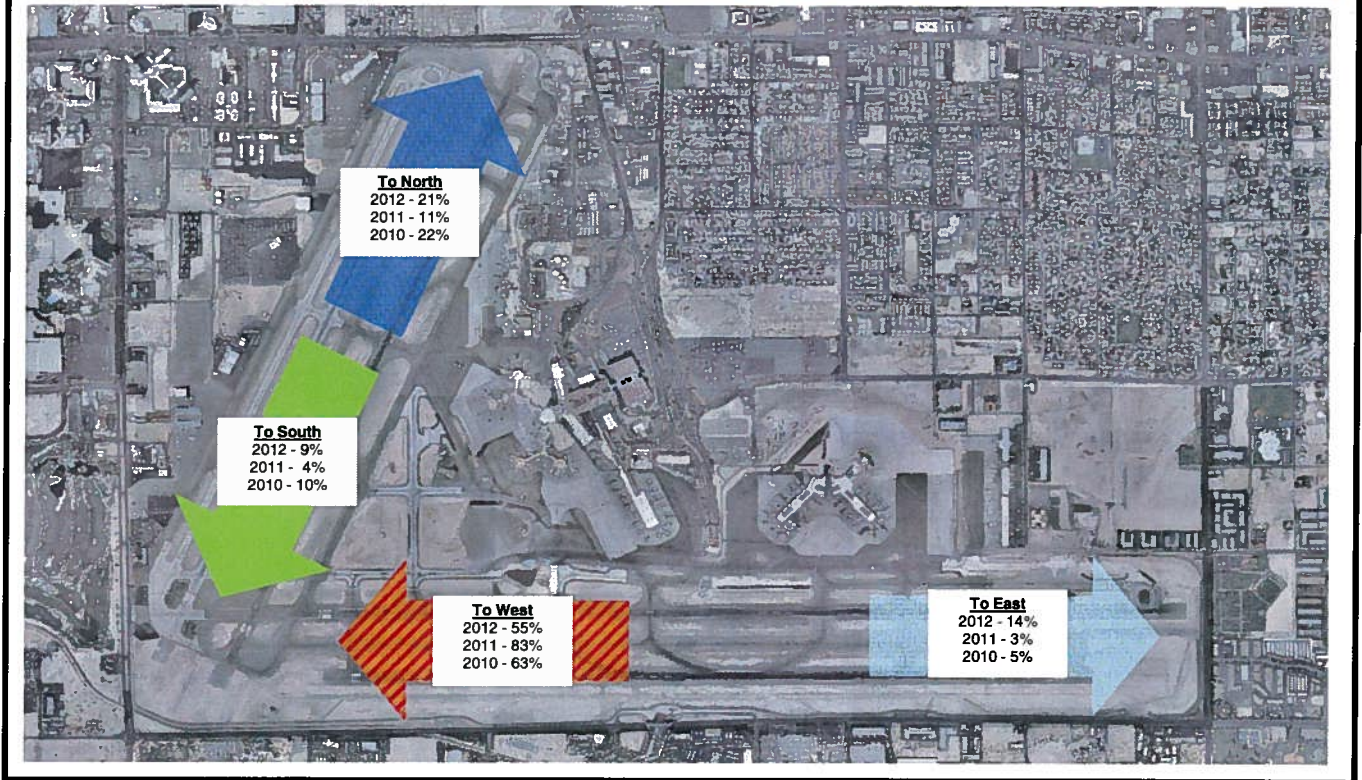
### Exhibit 7: LAS Aircraft Arrival Fleet Mix\* - May 2012



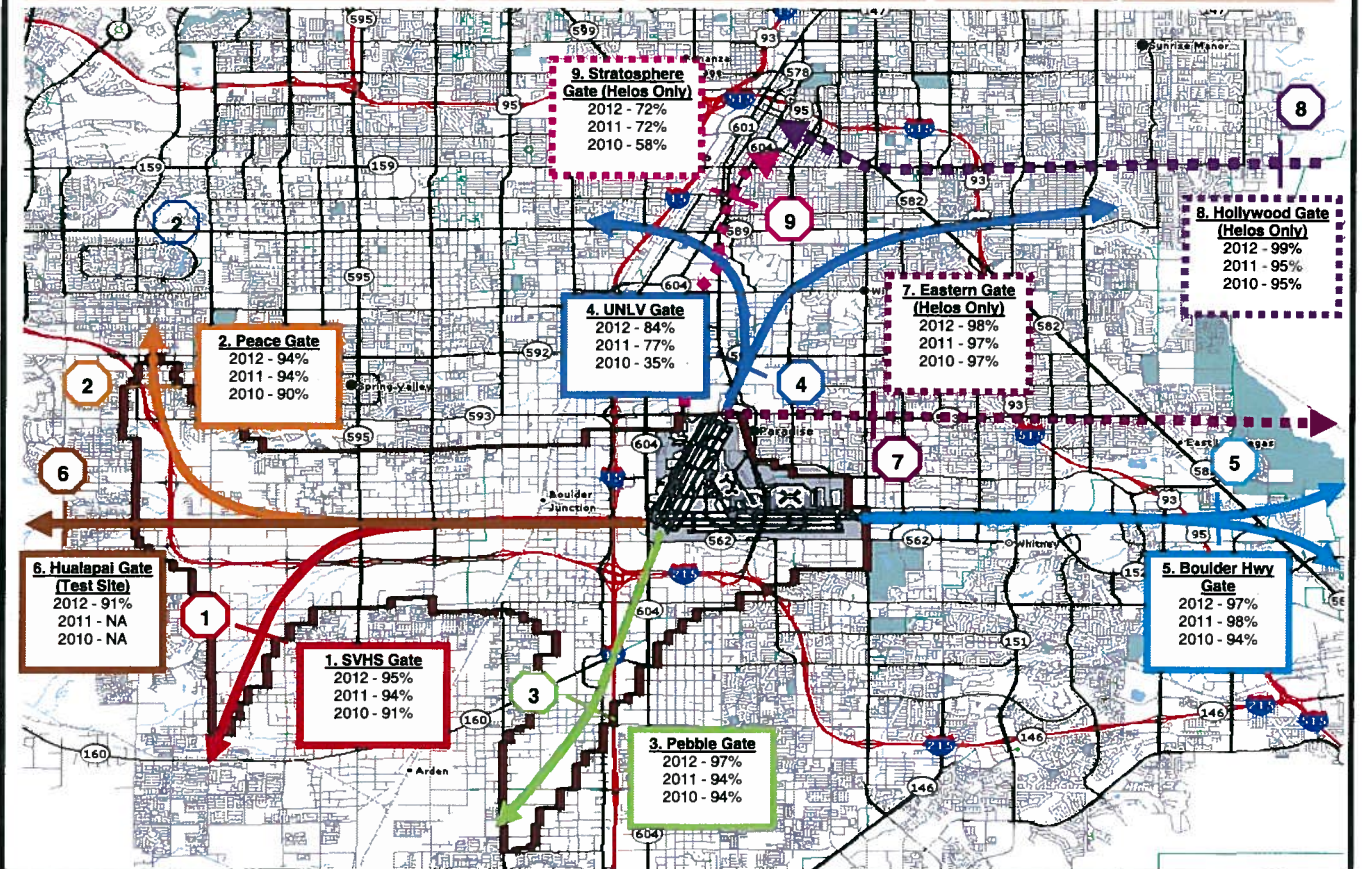
\* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.



**Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft\* - May 2012 to 2010**



**Exhibit 9: "Gate" Compliance for Large Aircraft\* & LAS Helicopter Tours - May 2012**



\* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.



### Exhibit 1: Noise Complaint Calls by Community\* - June 2012

Community	No. of Calls in 2012	No. of Callers in 2012	No. of Calls in 2011	No. of Calls in 2010
City of Boulder City			1	6
City of Henderson	10	5	8	
City of Las Vegas				
City of North Las Vegas				
Enterprise			3	4
Lone Mountain			1	
Paradise & Winchester	7	6	2	5
Spring Valley	1	1	3	10
Summerlin South				
Sunrise Manor				1
Whitney				1
Location unknown				
<b>Overall Total</b>	<b>18</b>	<b>12</b>	<b>18</b>	<b>27</b>

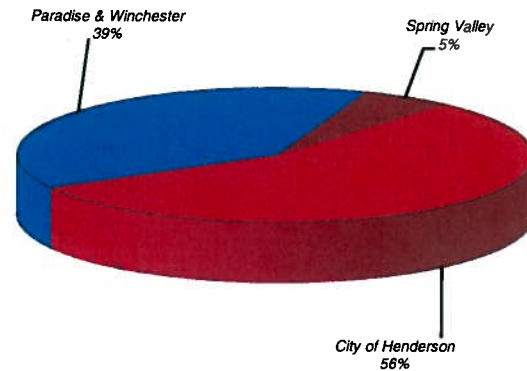
Difference between 2012 and 2011 Total Calls: 0%

Difference between 2012 and 2010 Total Calls: -33%

Average Number of Calls per Caller: 1.5

Most calls received from one household: 5

Calls by Community

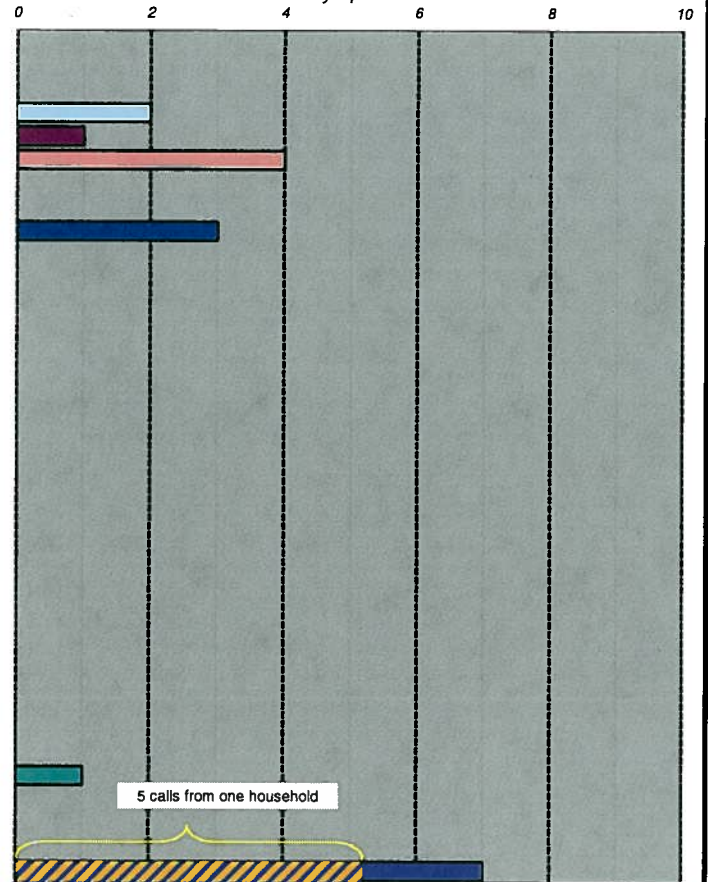


\* See map on reverse side for community boundaries and location of known noise complaints.

### Exhibit 2: Noise Complaint Calls by Type of Operation - June 2012

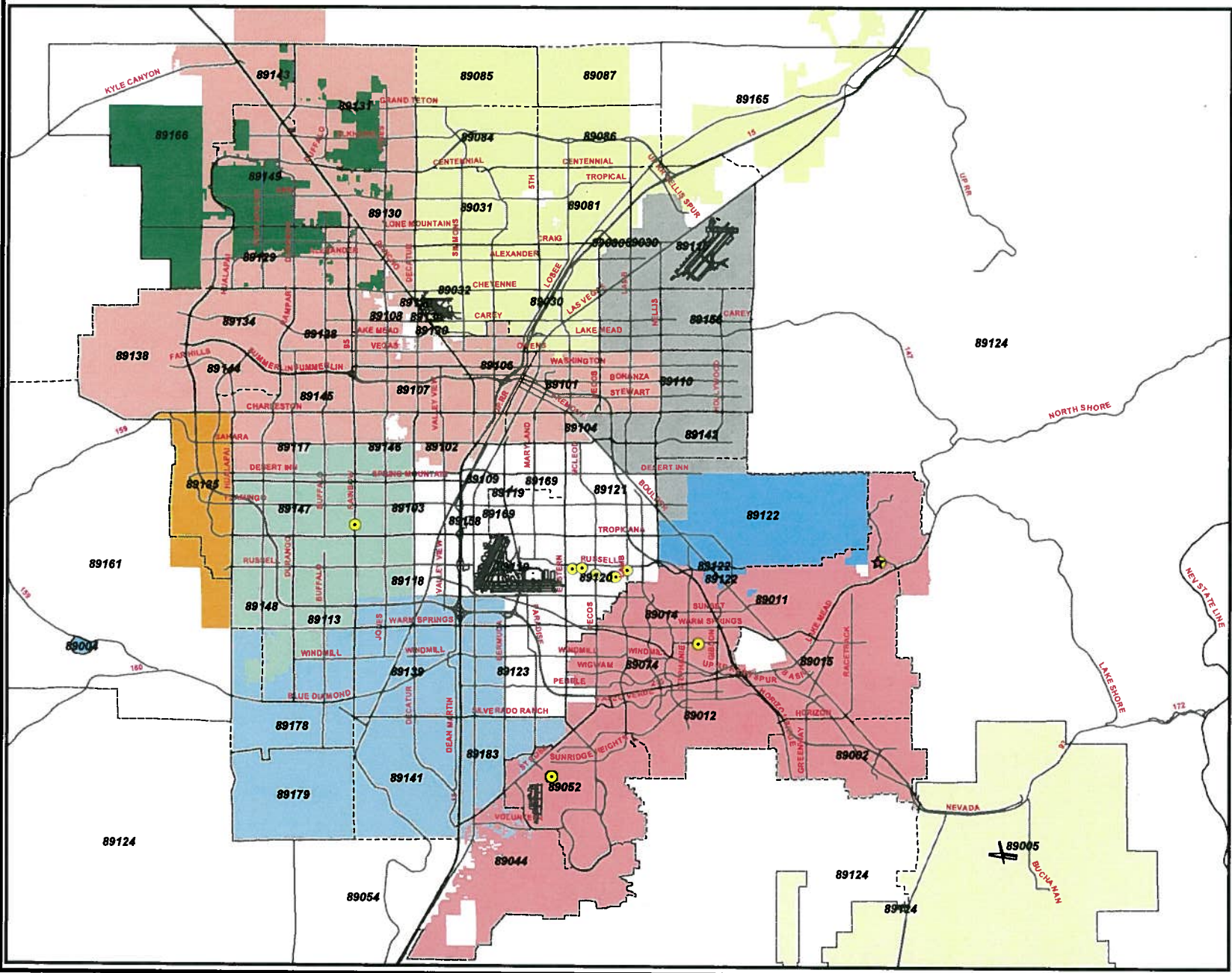
Operation	No. of Calls in 2012	Percent of Overall Total	No. of Calls in 2011	No. of Calls in 2010
LAS 01R/L Arrivals				
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	2	11.1%		
LAS 01R/L Departures	1	5.6%	3	13
LAS 07R/L Departures	4	22.2%		2
LAS 19R/L Departures			2	1
LAS 25R/L Departures			7	5
LAS Run-ups	3	16.7%		
LAS GA				
LAS Other				
<b>LAS Total</b>	<b>10</b>	<b>55.6%</b>	<b>12</b>	<b>21</b>
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA			1	
VGT Other				
<b>VGT Total</b>	<b>0</b>	<b>0.0%</b>	<b>1</b>	<b>0</b>
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	5.6%	1	3
HND Other				
<b>HND Total</b>	<b>1</b>	<b>5.6%</b>	<b>1</b>	<b>3</b>
<b>Helicopters**</b>	<b>7</b>	<b>38.9%</b>	<b>4</b>	<b>3</b>
<b>Overall Total</b>	<b>18</b>	<b>100%</b>	<b>18</b>	<b>27</b>

Calls by Operation



\*\* Note that helicopter noise complaints are not tied to a specific facility since the operation cannot always be associated to a specific airport. Additionally, helicopter calls do not include those associated with operations conducted by the Metropolitan Police Department or those associated with operations conducted at non-DOA facilities.


### Exhibit 3: Aircraft Noise Complaints by Community - June 2012




**Legend**  
 June 2012  
 Total Complaints: 18

- Aircraft Complaints Received 11 Mapped 11
- ★ Helicopter Complaints Received 7 Mapped 7
- Major Streets
- Airports
- - - Zip Code Boundaries
- Unincorporated Clark County
- Boulder City
- Whitney
- Henderson
- Las Vegas
- North Las Vegas
- Paradise/Winchester
- Summerlin
- Spring Valley
- Sunrise Manor
- Winchester
- Enterprise
- Lone Mountain

Department of Aviation  
 I.S. Division  
 Geographic Information Systems



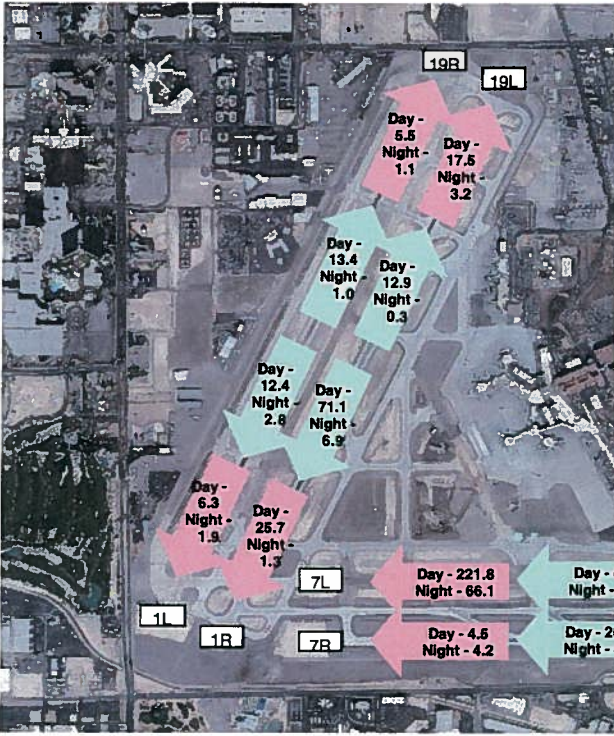
July 13, 2012  
 Note: This information is for display purposes only. The liability is assumed as to the accuracy of the data delineated hereon.



11/03/12 app for map View/0017/02\_2012



### Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft\* - June 2012

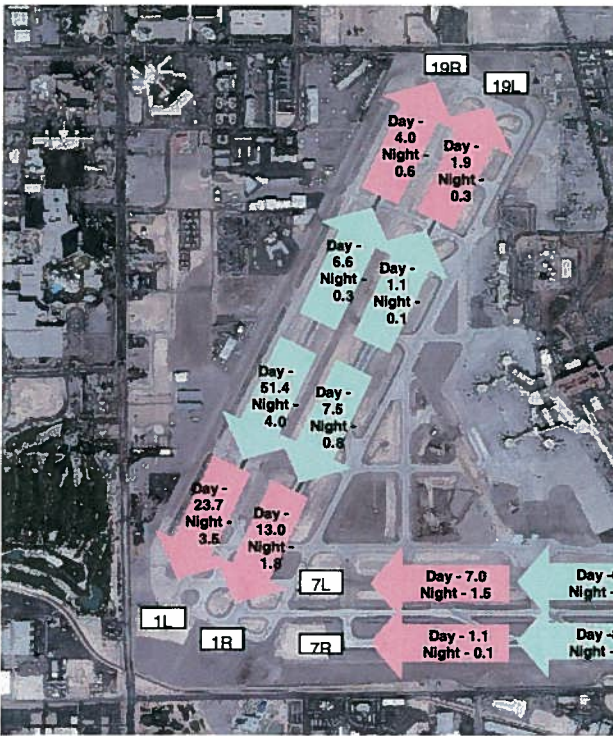


Year	2012	2011	2010
Daytime Departures	377 83%	416 84%	399 87%
Nighttime Departures	79 17%	77 16%	61 13%
<b>Total Departures</b>	<b>456 100%</b>	<b>493 100%</b>	<b>460 100%</b>
Daytime Arrivals	420 87%	429 87%	421 90%
Nighttime Arrivals	64 13%	64 13%	49 10%
<b>Total Arrivals</b>	<b>484 100%</b>	<b>493 100%</b>	<b>470 100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-7%	-9%	3%
Depts. 2012 vs 2010	-1%	-6%	30%
Arrivals 2012 vs 2011	-2%	-2%	0%
Arrivals 2012 vs 2010	3%	0%	31%

\* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A340, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

### Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft\*\* - June 2012



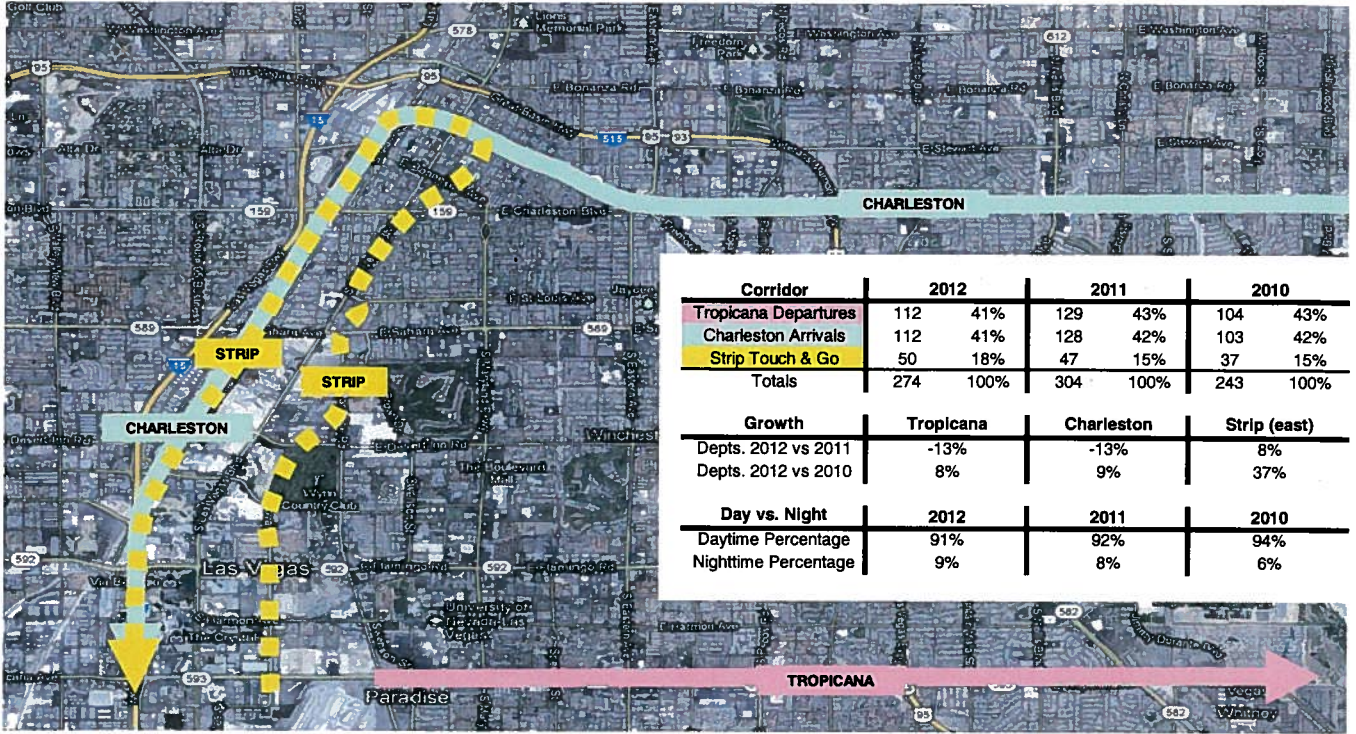
Year	2012	2011	2010
Daytime Departures	69 90%	81 90%	68 88%
Nighttime Departures	8 10%	9 10%	9 12%
<b>Total Departures</b>	<b>77 100%</b>	<b>90 100%</b>	<b>77 100%</b>
Daytime Arrivals	85 94%	87 93%	82 93%
Nighttime Arrivals	6 6%	7 7%	6 7%
<b>Total Arrivals</b>	<b>91 100%</b>	<b>94 100%</b>	<b>88 100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-15%	-15%	-12%
Depts. 2012 vs 2010	-1%	1%	-12%
Arrivals 2012 vs 2011	-3%	-2%	-16%
Arrivals 2012 vs 2010	4%	4%	-2%

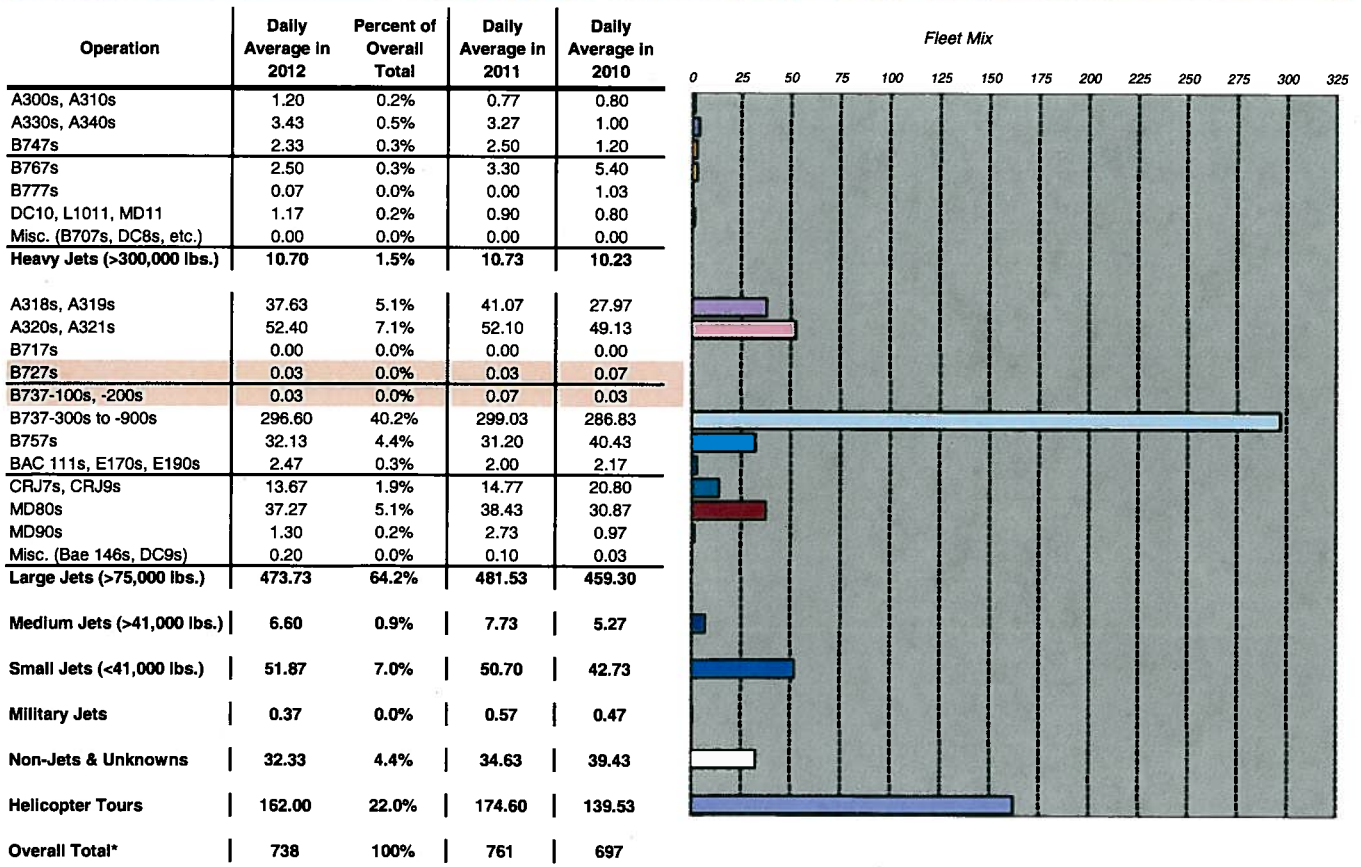
\*\* Aircraft types: All aircraft with a maximum gross take of weight less than 75,000 pounds, excluding helicopters.



### Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - June 2012



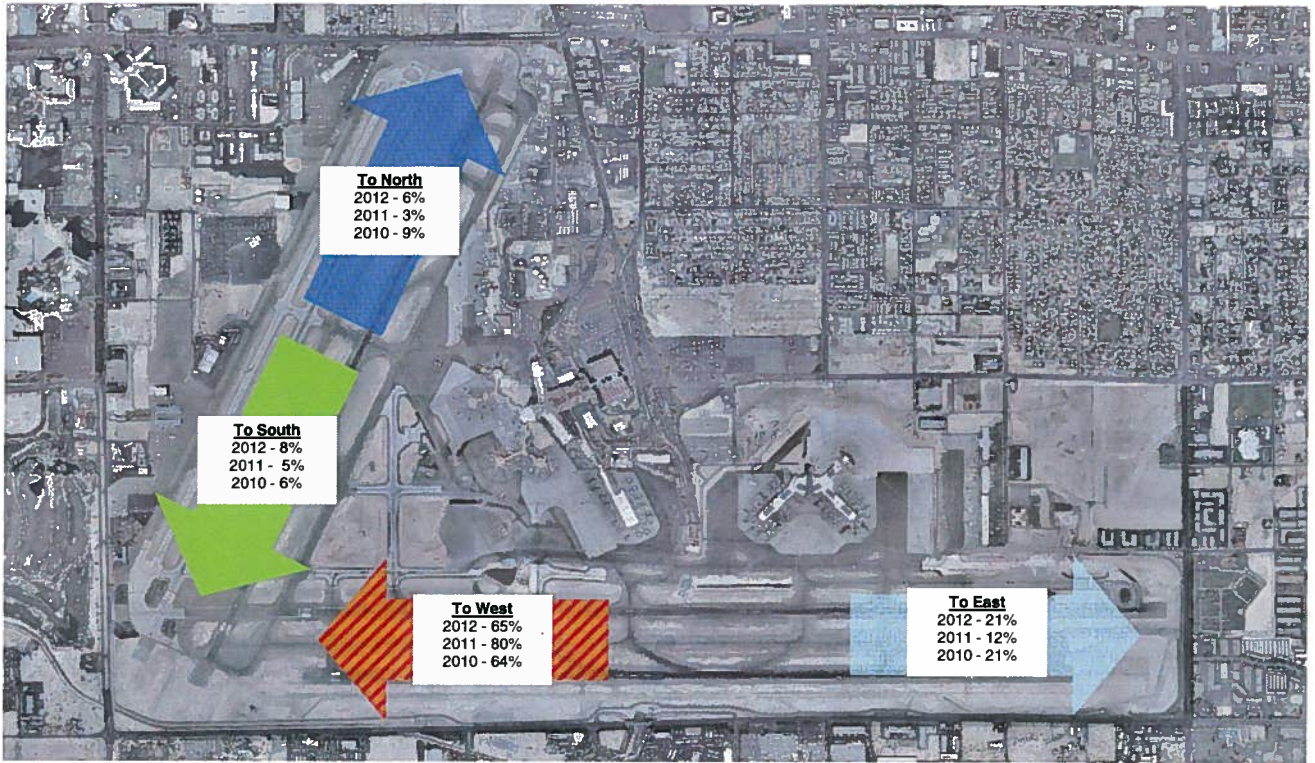
### Exhibit 7: LAS Aircraft Arrival Fleet Mix\* - June 2012



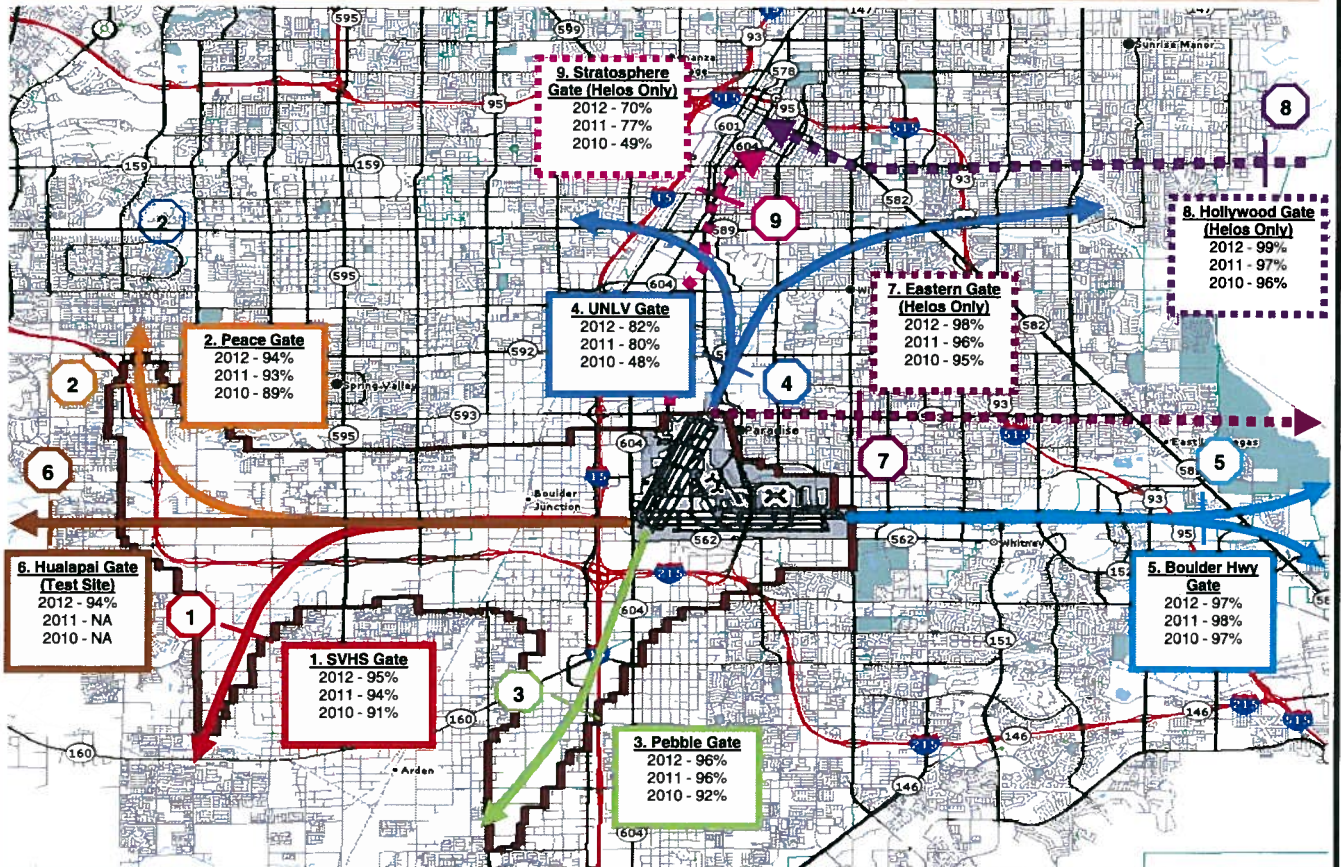
\* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.



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