

# MEMORANDUM

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Director

## DEPARTMENT OF AVIATION

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TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER

SUBJECT: APRIL THROUGH JUNE 2014 NOISE COMPLAINT REPORTS

DATE: JULY 15, 2014

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Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for April through June 2014. 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, etc. 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. Arrival and departure corridor use for helicopters are summarized in **Exhibit 6**. **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. **Exhibit 8** illustrates the general departure direction for large aircraft.

Lastly, **Exhibit 9** summarizes how well large aircraft and helicopters adhered to the preferred, non-regulated departure corridors. 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 corridors, or impose penalties to pilots who opt not to comply with preferred procedures. "Compliance gates" are located along historical/fly-quietly 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 2014:** 773 total complaints - a 1,210% increase from 2013 and a 1,167% increase from 2012. On average, each caller (or household) issued 35.1 calls. The most calls received from one household totaled 743.

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

**Majority (more than 50%):** The *Paradise and Winchester* communities issued 751 calls (97%). 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).

**Minority (between 10% and 50%):** (Not applicable.)

**Repeat Caller Impact:** One household issued 96% of the total calls.

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

**LAS:** 99% of the total calls were due to *LAS* fixed-wing operations.

- 53% were due to departures to the north from Runways 01L and 01R (97% from one household).
- 41% were due to departures to the west from Runways 25L and 25R (98% from one household, which is the same household that issued 97% of the calls for Runways 01L and 01R).

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

**HND:** <1% of the total calls were due to *HND* fixed-wing operations.

**Helos:** <1% of the total calls were due to *helicopter* operations.

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

**Overall:** 418 daily *departures*<sup>1</sup> – a 1% decrease from 2013 and 9% decrease from 2012.

- 67% of departures were to the west, 15% east, 14% north, and 4% south.

457 daily *arrivals* – a 4% decrease from 2013 and 7% decrease from 2012.

- 71% of arrivals were from the east, 17% south, 9% north, 2% west.

**Daytime:** 348 daily *departures*<sup>2</sup> – a 1% increase from 2013 and 10% decrease from 2012.

- 65% of departures were to the west, 17% east, 14% north, and 4% south.

404 daily *arrivals* – a 3% decrease from 2013 and 6% decrease from 2012.

- 71% of arrivals were from the east, 18% south, 9% north, 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.

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

**Nighttime:** 70 daily *departures*<sup>3</sup> – a 9% decrease from 2013 and 5% decrease from 2012.  
▪ 76% of departures were to the west, 14% north, 7% east, and 3% south.  
53 daily *arrivals* – a 7% decrease from 2013 and 13% decrease from 2012.  
▪ 74% of arrivals were from the east, 16% south, and 10% north.

**Daytime vs. Nighttime:** Approximately 83% 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:** 77 daily *departures*<sup>4</sup> – a 5% decrease from 2013 and 3% decrease from 2012.  
▪ 53% of departures were to the south, 21% north, 15% west, and 11% east.  
89 daily *arrivals* – a 7% decrease from 2013 and 5% decrease from 2012.  
▪ 61% of arrivals were from the north, 22% south, 14% east, and 3% west.

**Daytime:** 68 daily *departures*<sup>5</sup> – a 6% decrease from 2013 and 6% decrease from 2012.  
▪ 52% of departures were to the south, 21% north, 15% west, and 12% east.  
83 daily *arrivals* – a 7% decrease from 2013 and 4% decrease from 2012.  
▪ 61% of arrivals were from the north, 22% south, 14% east, and 3% west.

**Nighttime:** 8 daily *departures*<sup>6</sup> – a 2% increase from 2013 and 26% increase from 2012.  
▪ 67% of departures were to the south, 19% north, 12% west, and 3% east.  
6 daily *arrivals* – a 13% decrease from 2013 and 7% decrease from 2012.  
▪ 62% of arrivals were from the north, 31% south, 6% east, and 1% west.

**Daytime vs. Nighttime:** Approximately 89% of all *departures* and 94% of all *arrivals* occurred during the daytime hours.

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

**Tropicana:** 106 daily *departures* - a 16% decrease from 2013 and a 10% decrease from 2012.

**Charleston:** 104 daily *arrivals* - a 16% decrease from 2013 and an 11% decrease from 2012.

**Strip:** 28 daily *touch and go's* - a 16% decrease from 2013 and a 26% decrease from 2012.

**Daytime vs. Nighttime:** Approximately 97% 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 66% of the daily traffic.

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

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

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

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

**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 8% of the daily traffic.

**Military:** *Military* turbine-driven aircraft accounted for virtually 0% of the daily traffic.

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

**Heli:** *Touring helicopters* accounted for 20% of the daily traffic.

**Noisier Aircraft Types:** The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for zero operations.

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

**Primary:** In 2014, 67% departed to the *west* (from LAS's primary departure runways). This figure was 73% in 2013 and 64% in 2012.

**Secondary:** In 2014, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2013 and 11% in 2012.

**Alternate 1:** In 2014, 14% departed to the *north* (from LAS's alternate departure runways). This figure was 16% in 2013 and 16% in 2012.

**Alternate 2:** In 2014, 15% departed to the *east* (from LAS's alternate departure runways). This figure was 8% in 2013 and 9% in 2012.

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

**SVHS:** In 2014, 96% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 96% in 2013 and 94% in 2012.

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 2014, 95% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 96% in 2013 and 95% in 2012.

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 2014, almost 100% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 93% in 2013 and 97% in 2012.

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 2014, 81% 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 2013 and 83% in 2012.

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 2014, 94% 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 2013 and 97% in 2012.

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 2014, 87% of the large air carrier aircraft destined to the Nevada National Security 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 93% in 2013 and 89% in 2012.

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 National Security 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 2014, 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 99% in 2013 and 98% in 2012.

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 2014, almost 100% 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 99% in 2013 and 99% in 2012.

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 2014, 98% 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 90% in 2013 and 88% in 2012.

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 with the exception of increased departures to the east and the number of complaints tied to a single household.



**May 2014:** 453 total complaints - a 1,410% decrease from 2013 and a 1,062% decrease from 2012. On average, each caller (or household) issued 21.6 calls. The most calls received from one household totaled 428.

Calls by Community - (Exhibits 1 and 3)

**Majority (more than 50%):** The *Paradise and Winchester* communities issued 432 calls (95%). (See April 2014 synopsis of typical aircraft overflight impacts on this community.)

**Minority (between 10% and 50%):** (Not applicable.)

**Repeat Caller Impact:** One household issued 94% of the total calls.

Calls by Operation - (Exhibit 2)

**LAS:** 99% of the total calls were due to *LAS* fixed-wing operations.

- 50% were due to departures to the west from Runways 25L and 25R (98% from one household).
- 37% were due to departures to the north from Runways 01L and 01R (96% from one household, which is the same household that issued 98% of the calls for Runways 25L and 25R).

**VGT:** <1% of the total calls received were due to *VGT* fixed-wing operations.

**HND:** 1% of the total calls received were due to *HND* fixed-wing operations.

**Helis:** <1% of the total calls received were due to *helicopter* operations.

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

**Overall:** 441 daily *departures*<sup>7</sup> – a 4% increase from 2013 and no change from 2012.

- 73% of departures were to the west, 14% east, 10% north, and 3% south.

481 daily *arrivals* – a 1% increase from 2013 and no change from 2012.

- 76% of arrivals were from the east, 16% south, 8% north, and 1% from the west.

**Daytime:** 365 daily *departures*<sup>8</sup> – a 5% increase from 2013 and 2% decrease from 2012.

- 72% of departures were to the west, 16% east, 9% north, and 3% south.

425 daily *arrivals* – a 1% increase from 2013 and no change from 2012.

- 75% of arrivals were from the east, 17% south, 7% north, and 1% west.

**Nighttime:** 76 daily *departures*<sup>9</sup> – a 3% decrease from 2013 and 14% increase from 2012.

- 80% of departures were to the west, 14% north, 3% east, and 3% south.

56 daily *arrivals* – a 3% decrease from 2013 and a 2% decrease from 2012.

- 81% of arrivals were from the east, 11% south, and 9% north.

**Daytime vs. Nighttime:** Approximately 83% of all *departures* and 88% of all *arrivals* occurred during the daytime hours.

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

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

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

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

- Overall:** 91 daily *departures*<sup>10</sup> – a 4% increase from 2013 and 1% increase from 2012.  
▪ 62% of departures were to the south, 18% west, 17% north, and 10% east.  
100 daily *arrivals* – a 1% decrease from 2013 and 7% decrease from 2012.  
▪ 69% of arrivals were from the north, 19% south, 10% east, and 2% west.
- Daytime:** 81 daily *departures*<sup>11</sup> – a 4% increase from 2013 and a 2% decrease from 2012.  
▪ 61% of departures were to the south, 18% west, 11% east, and 10% north.  
93 daily *arrivals* – a 2% decrease from 2013 and an 8% decrease from 2012.  
▪ 69% of arrivals were from the north, 19% south, 10% east, and 2% west.
- Nighttime:** 11 daily *departures*<sup>12</sup> – a 2% increase from 2013 and a 36% increase from 2012.  
▪ 66% of departures were to the south, 18% west, 14% north, and 2% east.  
8 daily *arrivals* – a 17% increase from 2013 and a 10% increase from 2012.  
▪ 70% of arrivals were from the north, 22% south, 8% east, and 1% west.

**Daytime vs. Nighttime:** Approximately 89% of all *departures* and 93% of all *arrivals* occurred during the daytime hours.

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

- Tropicana:** 107 daily *departures* – a 20% decrease from 2013 and a 4% decrease from 2012.
- Charleston:** 106 daily *arrivals* - a 20% decrease from 2013 and a 5% decrease from 2012.
- Strip:** 35 daily *touch and go's* - a 20% decrease from 2013 and a 24% decrease from 2012.
- Daytime vs. Nighttime:** Approximately 95% 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 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 9% of the daily traffic.
- Military:** **Military** turbine-driven aircraft accounted for virtually 0% of the daily traffic.
- Non-Jet:** **Piston-driven** aircraft and unassigned aircraft types accounted for 4% 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.



**Heli:** *Touring helicopters* accounted for 20% of the daily traffic.

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

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

**Primary:** In 2014, 73% departed to the *west* (from LAS's primary departure runways). This figure was 73% in 2013 and 55% in 2012.

**Secondary:** In 2014, 3% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2013 and 9% in 2012.

**Alternate 1:** In 2014, 10% departed to the *north* (from LAS's alternate departure runways). This figure was 15% in 2013 and 21% in 2012.

**Alternate 2:** In 2014, 14% departed to the *east* (from LAS's alternate departure runways). This figure was 9% in 2013 and 14% in 2012.

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

**SVHS:** In 2014, 96% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 96% in 2013 and 95% in 2012. (See April 2014 synopsis for specific location of the SVHS gate.)

**Peace:** In 2014, 96% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 95% in 2013 and 94% in 2012. (See April 2014 synopsis for specific location of the Peace gate.)

**Pebble:** In 2014, 99% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 90% in 2013 and 97% in 2012. (See April 2014 synopsis for specific location of the Pebble gate.)

**UNLV:** In 2014, 78% 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 2013 and 84% in 2012. (See April 2014 synopsis for specific location of the UNLV gate.)

**Boulder:** In 2014, 96% 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 2013 and 97% in 2012. (See April 2014 synopsis for specific location of the Boulder Hwy. gate.)

**Hualapai:** In 2014, 89% of the large air carrier aircraft destined to the Nevada National Security 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 97% in 2013 and 91% in 2012. (See April 2014 synopsis for specific location of the Hualapai gate.)

**Eastern:** In 2014, 97% 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 99% in 2013 and 98% in 2012. (See April 2014 synopsis for specific location of the Eastern gate.)

**Hollywood:** In 2014, almost 100% 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 99% in 2013 and 99% in 2012. (See April 2014 synopsis for specific location of the Hollywood gate.)

**Stratosphere:** In 2014, 94% 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 80% in 2013 and 72% in 2012. (See April 2014 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 and the number of complaints tied to a single household.

**June 2014:** 146 total complaints – a 1,986% increase from 2013 and a 711% increase from 2012. On average, each caller (or household) issued 20.9 calls. The most calls received from one household totaled 140.

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

**Majority (more than 50%):** The *Paradise and Winchester* communities issued 142 calls (97%). (See April 2014 synopsis of typical aircraft overflight impacts on this community.)

**Minority (between 10% and 50%):** (Not applicable.)

**Repeat Caller Impact:** One household issued 96% of the total calls.

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

**LAS:** 93% of the total calls received were due to *LAS* fixed-wing operations.

- 93% were due to departures to the west from Runways 25L and 25R (96% from one household).

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

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

**Helis:** 7% of the total calls received were due to *helicopter* operations (80% from one household, which is also the same household noted for complaint calls for departures to the west from Runway 25L and 25R).

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

- Overall:** 441 daily *departures*<sup>13</sup> – a 2% increase from 2013 and a 3% decrease from 2012.  
▪ 72% of departures were to the west, 19% east, 6% north, and 3% south.  
487 daily *arrivals* – a 3% increase from 2013 and 1% increase from 2012.  
▪ 70% of arrivals were from the east, 18% north, 7% west and 4% south.
- Daytime:** 361 daily *departures*<sup>14</sup> – a 5% increase from 2013 and 4% decrease from 2012.  
▪ 67% of departures were to the west, 24% east, 6% north, and 3% south.  
424 daily *arrivals* – a 4% increase from 2013 and 1% increase from 2012.  
▪ 67% of arrivals were from the east, 19% north, 8% west, and 5% south.
- Nighttime:** 80 daily *departures*<sup>15</sup> – a 6% decrease from 2013 and 1% increase from 2012.  
▪ 94% of departures were to the west, 3% south, 2% north, and 1% east.  
63 daily *arrivals* – a 6% decrease from 2013 and 1% decrease from 2012.  
▪ 87% of arrivals were from the east, and 12% from the north.

**Daytime vs. Nighttime:** Approximately 82% 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:** 75 daily *departures*<sup>16</sup> – a 9% increase from 2013 and a 2% decrease from 2012.  
▪ 55% of departures were to the south, 20% east, 18% west, and 7% north.  
83 daily *arrivals* – a 9% increase from 2013 and a 9% decrease from 2012.  
▪ 71% of arrivals were from the north, 11% east, 10% west, and 8% south.
- Daytime:** 66 daily *departures*<sup>17</sup> – an 11% increase from 2013 and a 3% decrease from 2012.  
▪ 53% of departures were to the south, 23% east, 17% west, and 7% north.  
77 daily *arrivals* – a 10% increase from 2013 and a 10% decrease from 2012.  
▪ 70% of arrivals were from the north, 11% east, 10% west, and 8% south.
- Nighttime:** 9 daily *departures*<sup>18</sup> – a 1% decrease from 2013 and a 10% increase from 2012.  
▪ 70% of departures were to the south, 23% west, 5% north, and 1% east.  
6 daily *arrivals* – a 5% decrease from 2013 and no change from 2012.  
▪ 85% of arrivals were from the north, 10% east, 4% south, and 1% west.

**Daytime vs. Nighttime:** Approximately 88% of all *departures* and 93% of all *arrivals* occurred during the daytime hours.

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<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.

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

**Tropicana:** 102 daily *departures* – a 15% decrease from 2013 and a 9% decrease from 2012.

**Charleston:** 103 daily *arrivals* - a 14% decrease from 2013 and an 8% decrease from 2012.

**Strip:** 45 daily *touch and go's* - an 18% decrease from 2013 and a 10% decrease from 2012.

**Daytime vs. Nighttime:** Approximately 86% 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 66% 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 virtually 0% of the daily traffic.

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

**Heli:** **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 zero operations per day.

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

**Primary:** In 2014, 72% departed to the **west** (from LAS's primary departure runways). This figure was 82% in 2013 and 65% in 2012.

**Secondary:** In 2014, 3% departed to the **south** (from LAS's secondary departure runways). This figure was 3% in 2013 and 8% in 2012.

**Alternate 1:** In 2014, 6% departed to the **north** (from LAS's alternate departure runways). This figure was 2% in 2013 and 6% in 2012.

**Alternate 2:** In 2014, 19% departed to the **east** (from LAS's alternate departure runways). This figure was 13% in 2013 and 21% in 2012.

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

- SVHS:** In 2014, 95% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 96% in 2013 and 95% in 2012. (See April 2014 synopsis for specific location of the SVHS gate.)
- Peace:** In 2014, 96% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 95% in 2013 and 94% in 2012. (See April 2014 synopsis for specific location of the Peace gate.)
- Pebble:** In 2014, 99% of the large air carrier aircraft (excluding those destined to the Nevada National Security 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 99% in 2013 and 96% in 2012. (See April 2014 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2014, 80% 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 81% in 2013 and 82% in 2012. (See April 2014 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2014, 93% 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 2013 and 97% in 2012. (See April 2014 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2014, 86% of the large air carrier aircraft destined to the Nevada National Security 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 95% in 2013 and 94% in 2012. (See April 2014 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2014, 97% 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 99% in 2013 and 98% in 2012. (See April 2014 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2014, almost 100% 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 99% in 2013 and 99% in 2012. (See April 2014 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2014, 91% 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 79% in 2013 and 70% in 2012. (See April 2014 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 and the number of complaints tied to a single household.

**Other Notable Issues**

**Electric Daisy Carnival:** On June 20 thru 22, 2014, this concert event was held at the Las Vegas Motor Speedway, with a total attendance in excess of 400,000 people. Total revenue for this concert exceeded \$250 million for Clark County. Helicopter tour operators provided an estimated 545 passenger flights to and from the event over the three day period, resulting in zero noise complaints issued.

**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

July 15, 2014

Page 15 of 30

Distribution: Commissioner Sisolak, Chair  
Commissioner Brager  
Commissioner Collins  
Commissioner Weekly  
Saeed Bonabian  
Donald G. Burnette  
Ralph LePore  
Sam Ingalls  
Teresa Motley  
Dan Kezar  
Linda Healey  
Tucker Field  
Tina Frias  
Judy Villalta  
Sandra Cikity  
Donna Bergstrom

Stephen J. Lloyd (FAA TRACON)  
Jon Holman (FAA ATC)  
Charlie Halterman (HND Tower)  
Reid Walburg (FAA FSDO)  
Bristol Ellington (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)  
Mike Jeck (Metro Wash. Air Auth.)  
Frank Fiori (CNLV)  
James Davies (Sky Harbor Airport)  
Karen Everitt (Dallas City Hall)  
Thomas Miller (Nellis AFB)  
Stephanie Garcia-Vause (COH)  
Andrew Powell (COH)  
William Ruggiero (FAA TRACON)

Commissioner Brown, Vice-Chair  
Commissioner Giunchigliani  
Commissioner Scow  
Rosemary Vassiliadis  
Harry Waters  
Brian McMahon  
E. Lee Thomson  
Chris Jones  
Barbara Bolton  
Jeff Jacquart  
Charlie Hall  
Ben Czyzewski  
Dennis Anderson  
Tom Peterson  
Mark Silverstein  
Brenda Bell

James Erbeck (CLV)  
Wayne M. Niimi (FAA ATC)  
Paul Alukonis (FAA FSDO)  
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)  
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)  
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)  
John Dietz (FAA TRACON)

### Exhibit 1: Noise Complaint Calls by Community\* - April 2014

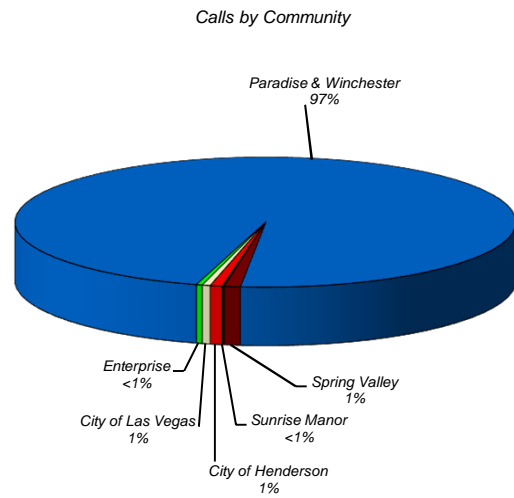
Community	No. of Calls in 2014	No. of Callers in 2014	No. of Calls in 2013	No. of Calls in 2012
City of Boulder City	6	6	19	2
City of Henderson	4	2	4	31
City of Las Vegas			4	2
City of North Las Vegas				1
Enterprise	3	3	4	1
Lone Mountain			7	
Paradise & Winchester	751	8	2	8
Spring Valley	8	2	4	14
Summerlin South				
Sunrise Manor	1	1	19	2
Whitney				
Location unknown				
<b>Overall Total</b>	<b>773</b>	<b>22</b>	<b>59</b>	<b>61</b>

Difference between 2014 and 2013 Total Calls: 1,210%

Difference between 2014 and 2012 Total Calls: 1,167%

Average Number of Calls per Caller: 35.1

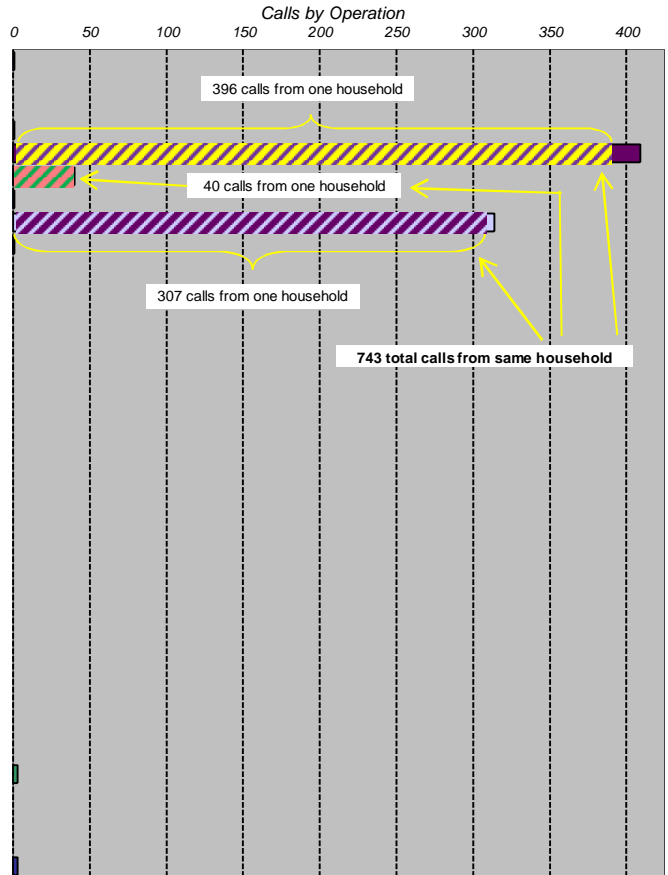
Most calls received from one household: 743



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

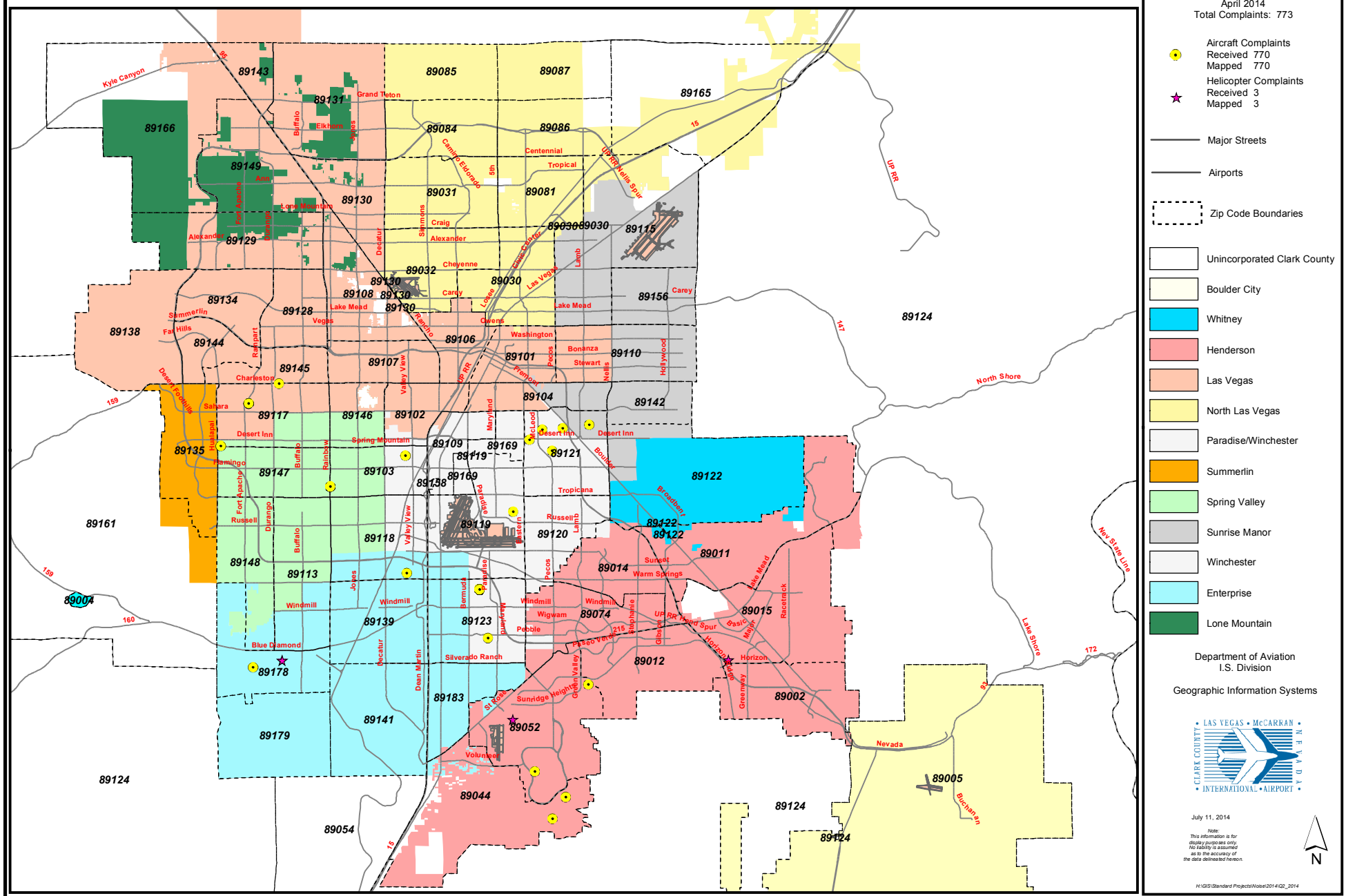
### Exhibit 2: Noise Complaint Calls by Type of Operation - April 2014

Operation	No. of Calls in 2014	Percent of Overall Total	No. of Calls in 2013	No. of Calls in 2012
LAS 01R/L Arrivals	1	0.1%		
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	1	0.1%		2
LAS 01R/L Departures	409	52.9%	11	15
LAS 07R/L Departures	40	5.2%	1	
LAS 19R/L Departures	1	0.1%		
LAS 25R/L Departures	314	40.6%	17	7
LAS Run-ups	1			
LAS GA				
LAS Other				
<b>LAS Total</b>	<b>767</b>	<b>99.2%</b>	<b>29</b>	<b>24</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>0</b>	<b>1</b>
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	3	0.4%	14	2
HND Other				
<b>HND Total</b>	<b>3</b>	<b>0.4%</b>	<b>14</b>	<b>2</b>
<b>Helicopters**</b>	<b>3</b>	<b>0.4%</b>	<b>16</b>	<b>34</b>
<b>Overall Total</b>	<b>773</b>	<b>100%</b>	<b>59</b>	<b>61</b>

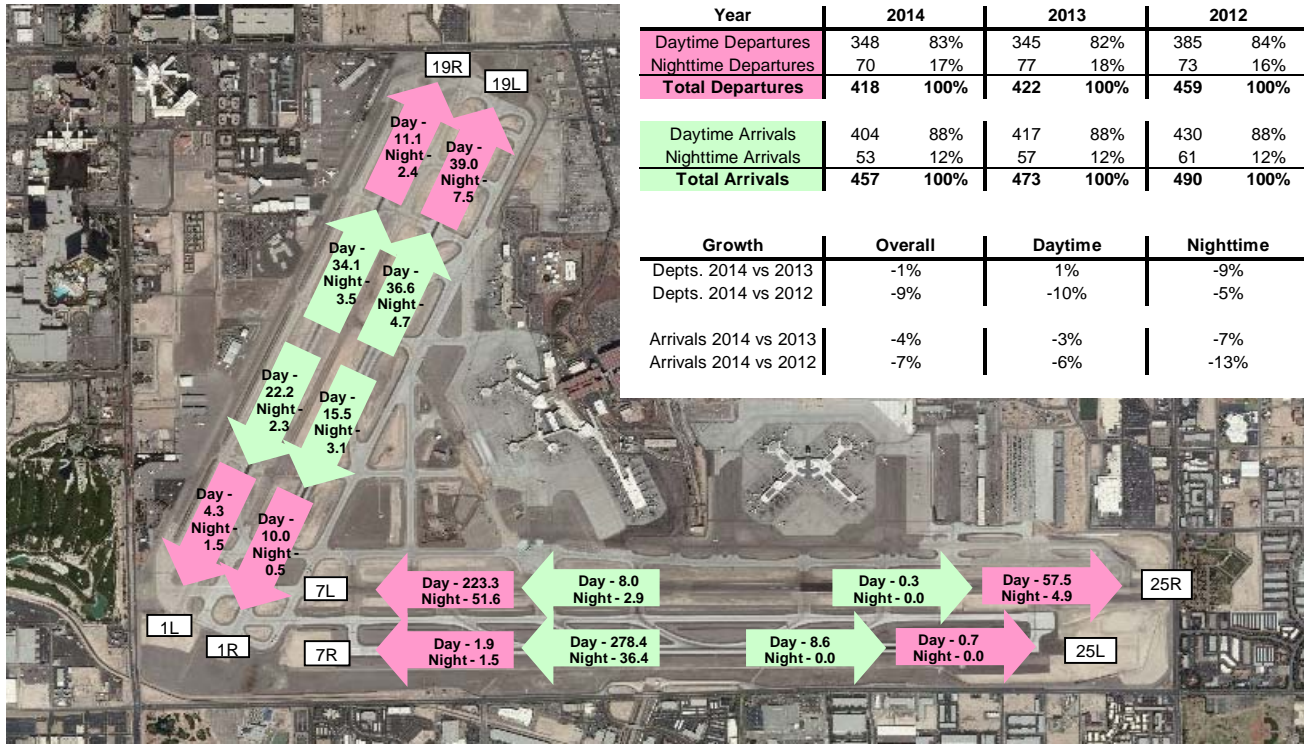


\*\* Note that helicopter noise complaints are not tied to a specific facility since the operation cannot always be associated to a specific airport. Additionally, helicopter calls do not include those associated with operations conducted by the Metropolitan Police Department or those associated with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

# Exhibit 3: Aircraft Noise Complaints by Community - April 2014

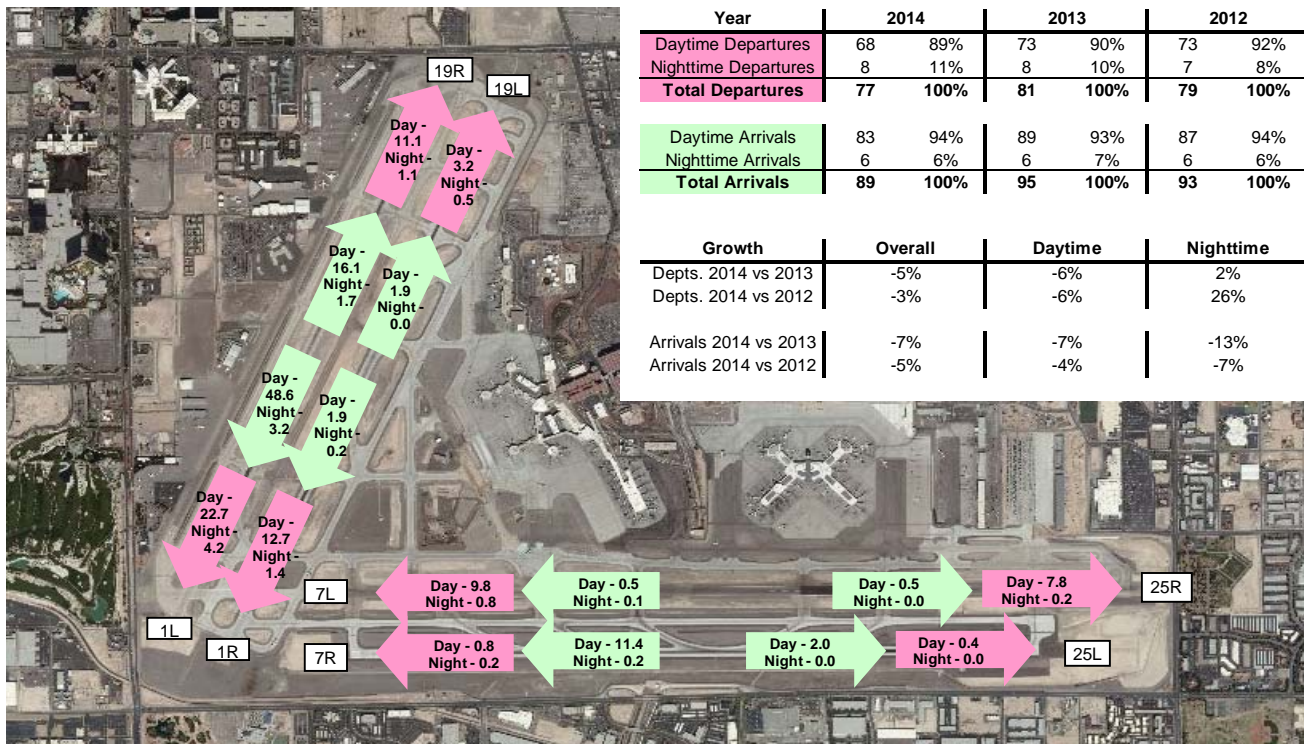


#### Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft\* - April 2014



\* 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.

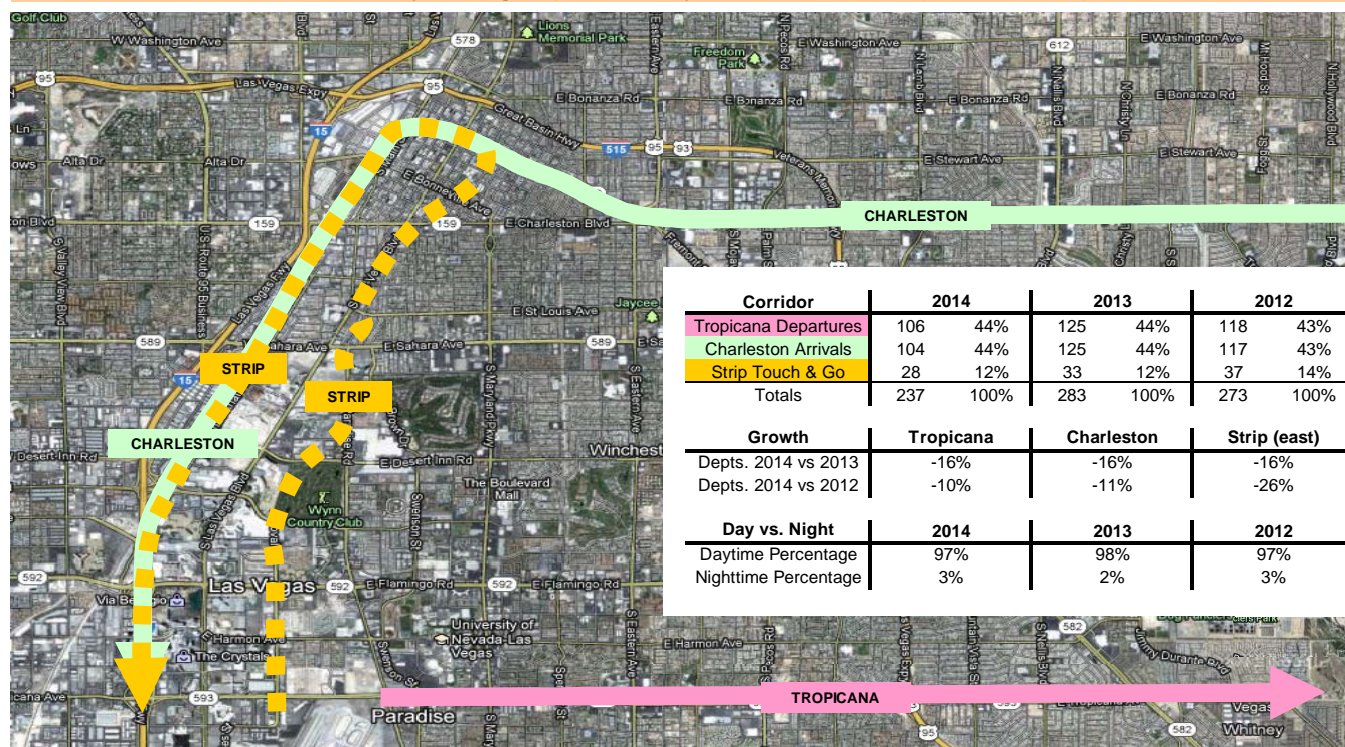
#### Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft\*\* - April 2014



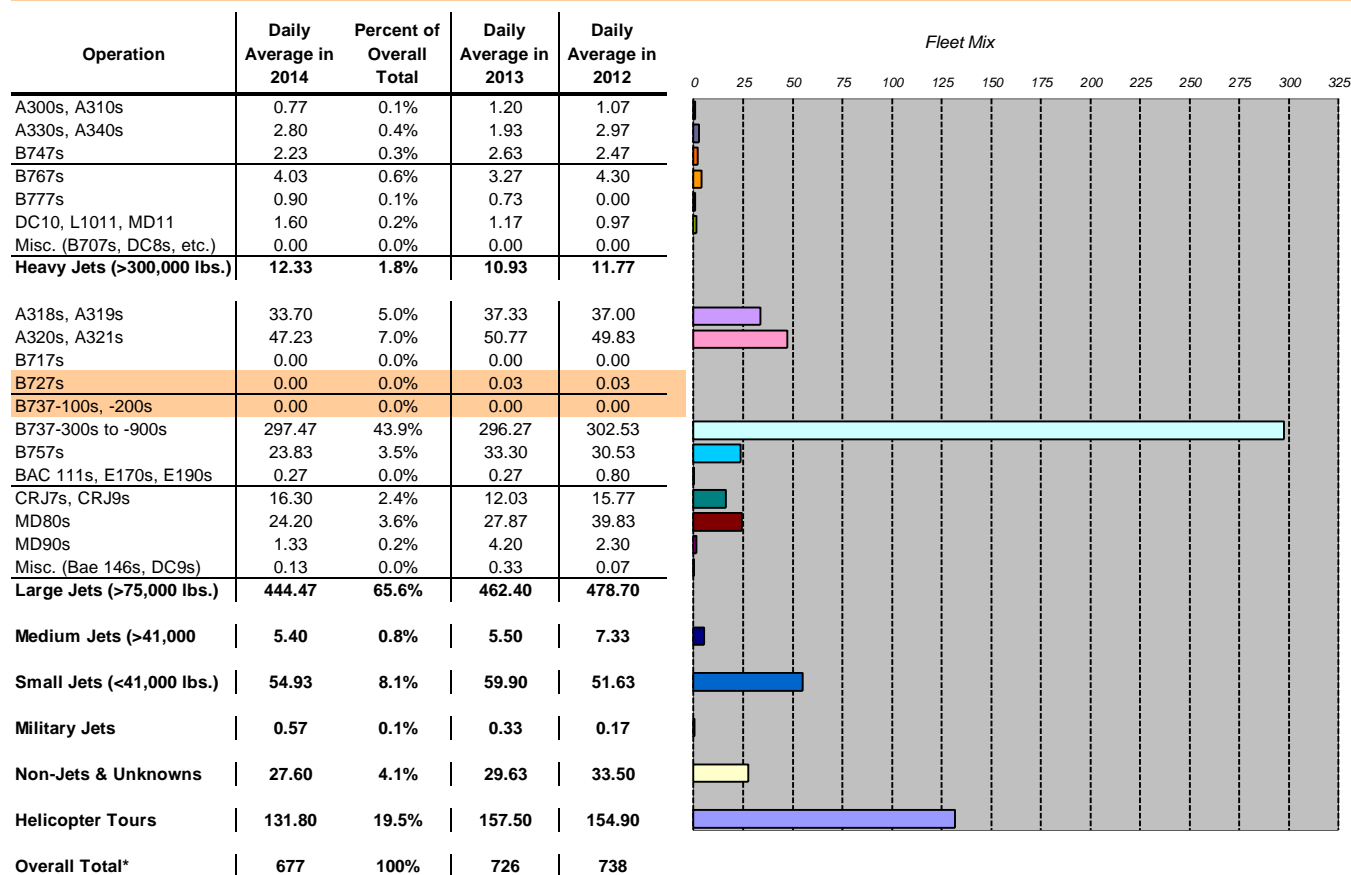
\*\* Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.



### Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - April 2014



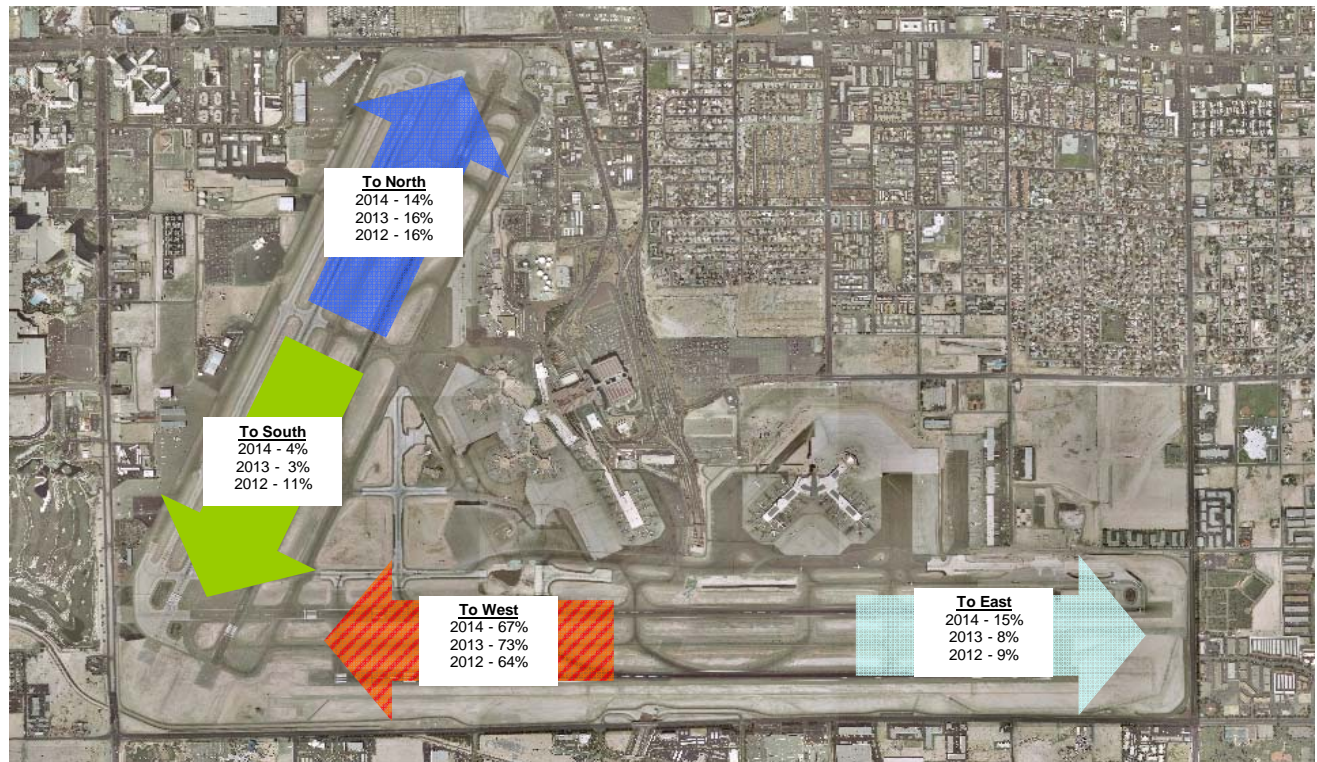
### Exhibit 7: LAS Aircraft Arrival Fleet Mix\* - April 2014



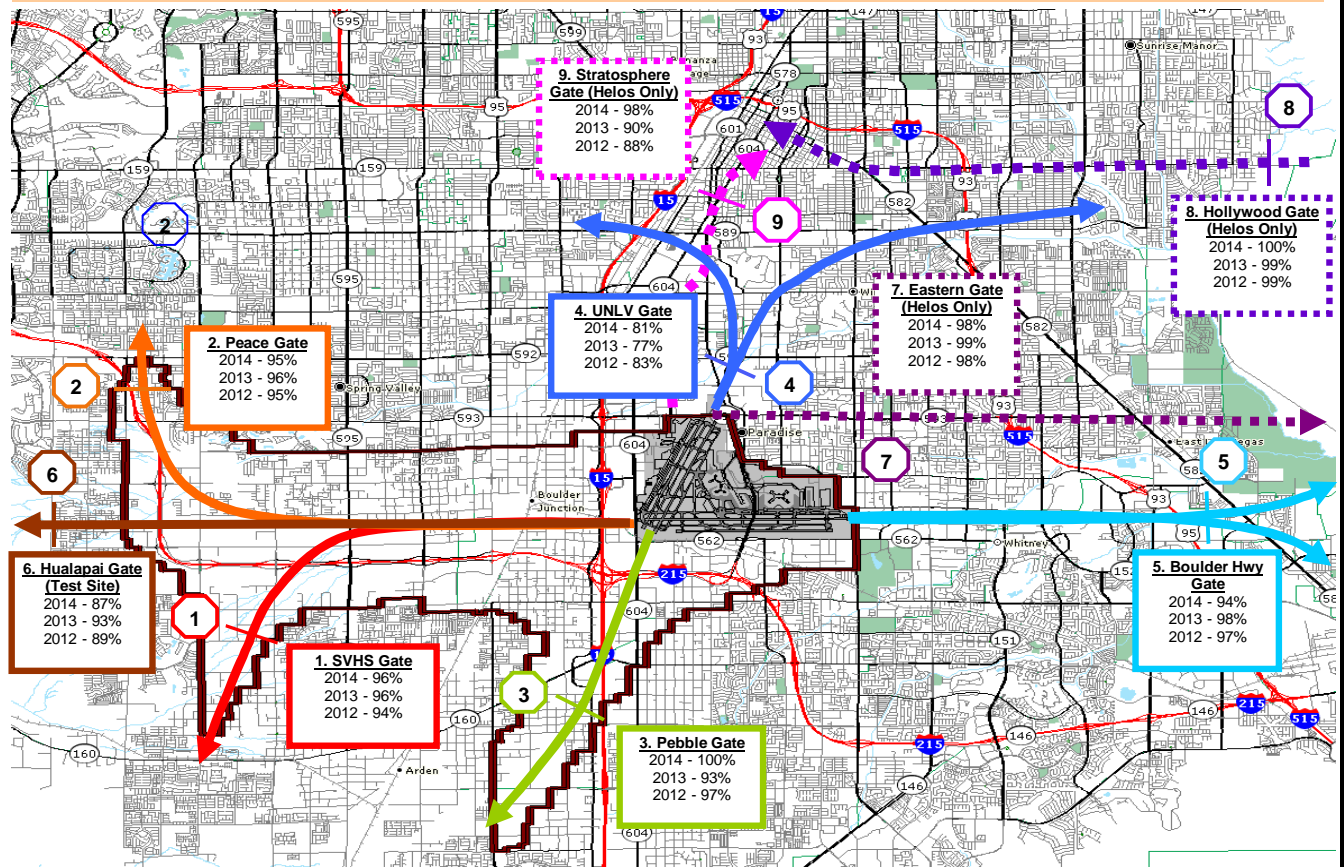
\* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.



**Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft\* - April 2014 to 2012**



**Exhibit 9: "Gate" Compliance for Large Aircraft\* & LAS Helicopter Tours - April 2014**



\* 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, A350, 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 2014

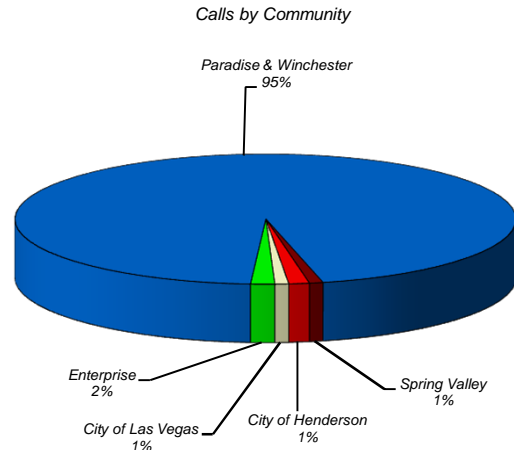
Community	No. of Calls in 2014	No. of Callers in 2014	No. of Calls in 2013	No. of Calls in 2012
City of Boulder City	6	6	3	15
City of Henderson	4	4	3	2
City of Las Vegas				
City of North Las Vegas				
Enterprise	7	5	3	
Lone Mountain				1
Paradise & Winchester	432	4	6	7
Spring Valley	4	2	4	10
Summerlin South				
Sunrise Manor			11	3
Whitney				1
Location unknown				
<b>Overall Total</b>	<b>453</b>	<b>21</b>	<b>30</b>	<b>39</b>

Difference between 2013 and 2012 Total Calls: 1,410%

Difference between 2013 and 2011 Total Calls: 1,062%

Average Number of Calls per Caller: 21.6

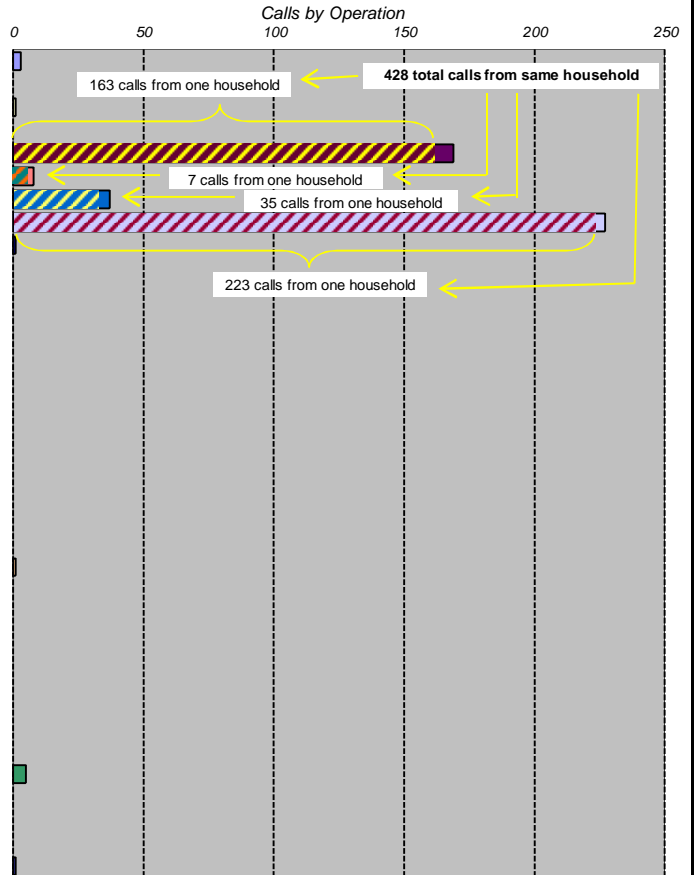
Most calls received from one household: 428



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

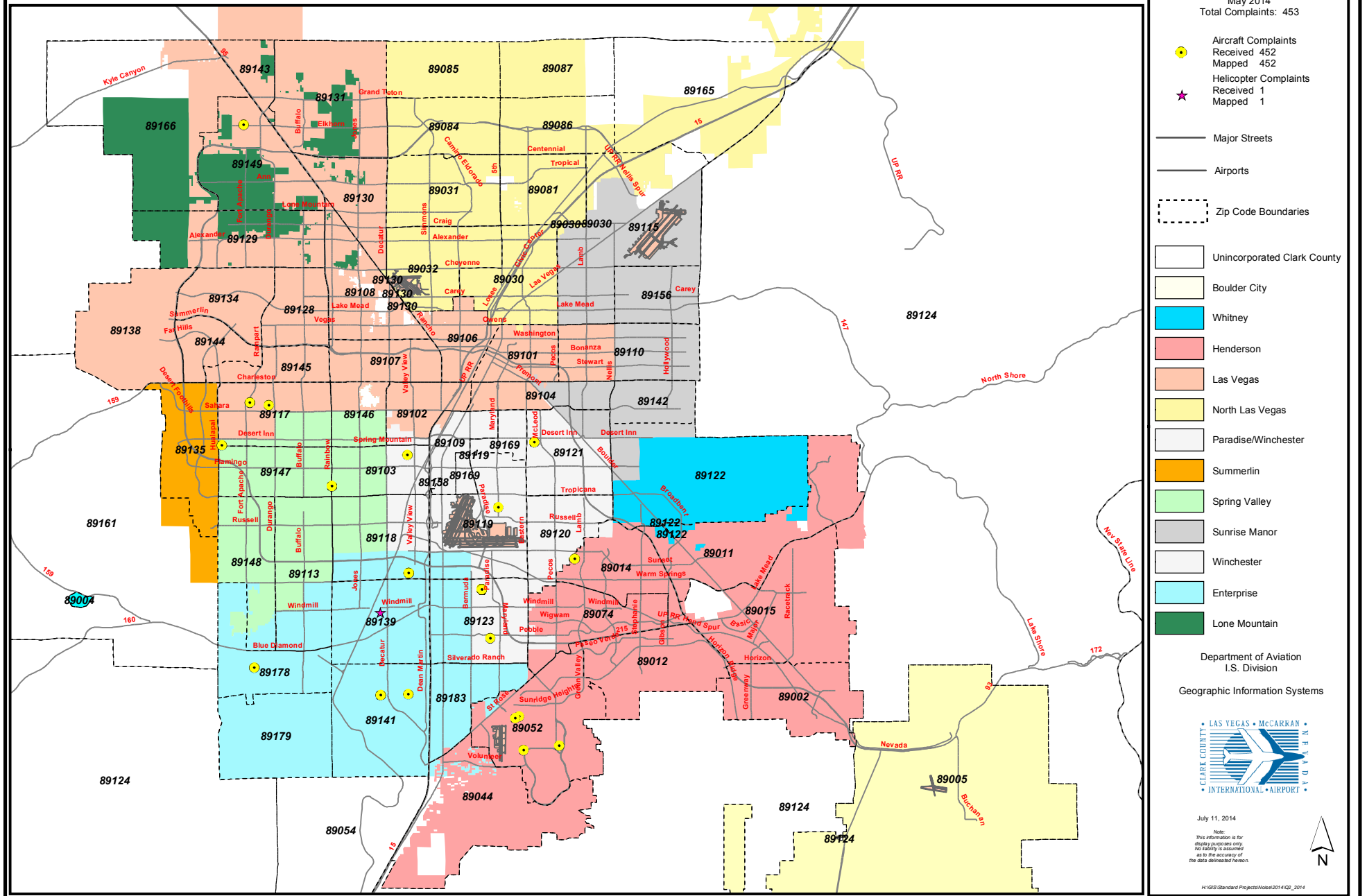
### Exhibit 2: Noise Complaint Calls by Type of Operation - May 2014

Operation	No. of Calls in 2014	Percent of Overall Total	No. of Calls in 2013	No. of Calls in 2012
LAS 01R/L Arrivals	3	0.7%		
LAS 07R/L Arrivals				
LAS 19R/L Arrivals	1	0.2%		
LAS 25R/L Arrivals				
LAS 01R/L Departures	169	37.3%	6	16
LAS 07R/L Departures	8	1.8%	1	3
LAS 19R/L Departures	37			
LAS 25R/L Departures	227	50.1%	6	4
LAS Run-ups	1	0.2%	1	
LAS GA				
LAS Other				
<b>LAS Total</b>	<b>446</b>	<b>98.5%</b>	<b>14</b>	<b>23</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	0.2%		1
VGT Other				
<b>VGT Total</b>	<b>1</b>	<b>0.2%</b>	<b>0</b>	<b>1</b>
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	5	1.1%		2
HND Other				
<b>HND Total</b>	<b>5</b>	<b>1.1%</b>	<b>0</b>	<b>2</b>
<b>Helicopters**</b>	<b>1</b>	<b>0.2%</b>	<b>16</b>	<b>13</b>
<b>Overall Total</b>	<b>453</b>	<b>100%</b>	<b>30</b>	<b>39</b>

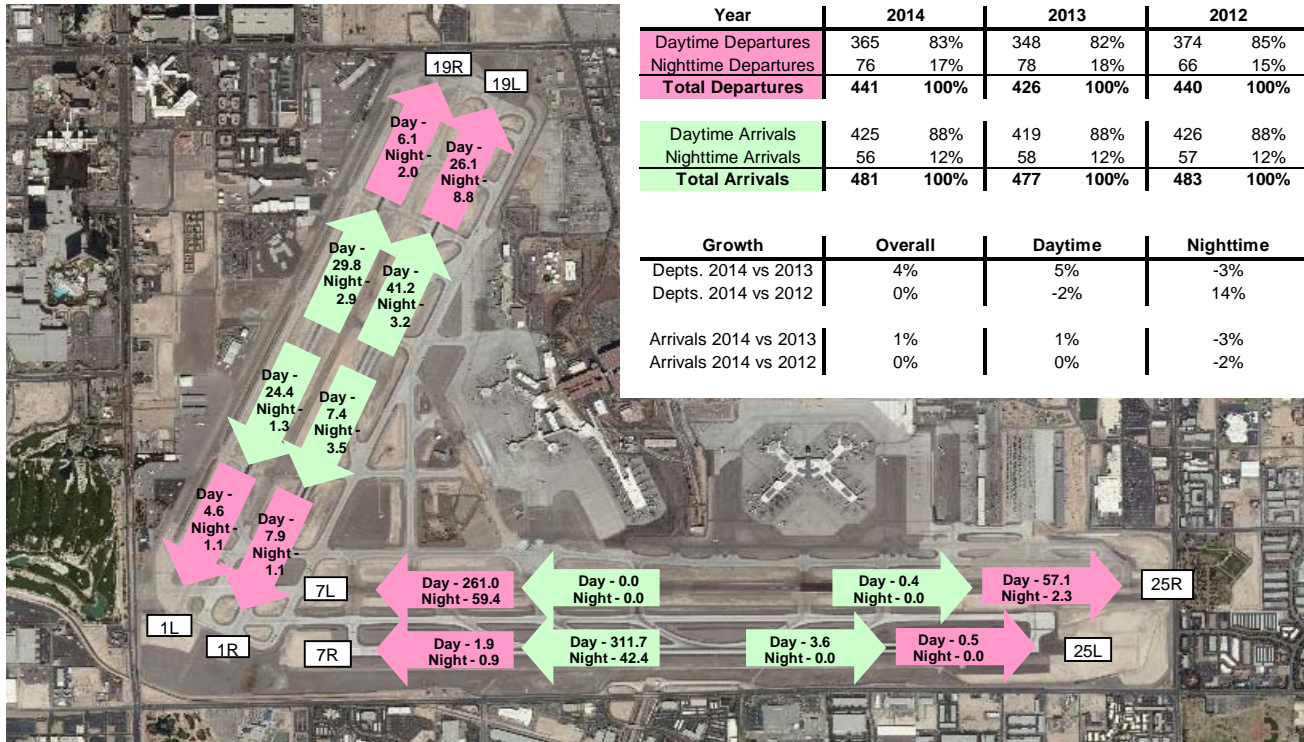


\*\* Note that helicopter noise complaints are not tied to a specific facility since the operation cannot always be associated to a specific airport. Additionally, helicopter calls do not include those associated with operations conducted by the Metropolitan Police Department or those associated with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

## 2014 Noise Complaint Report

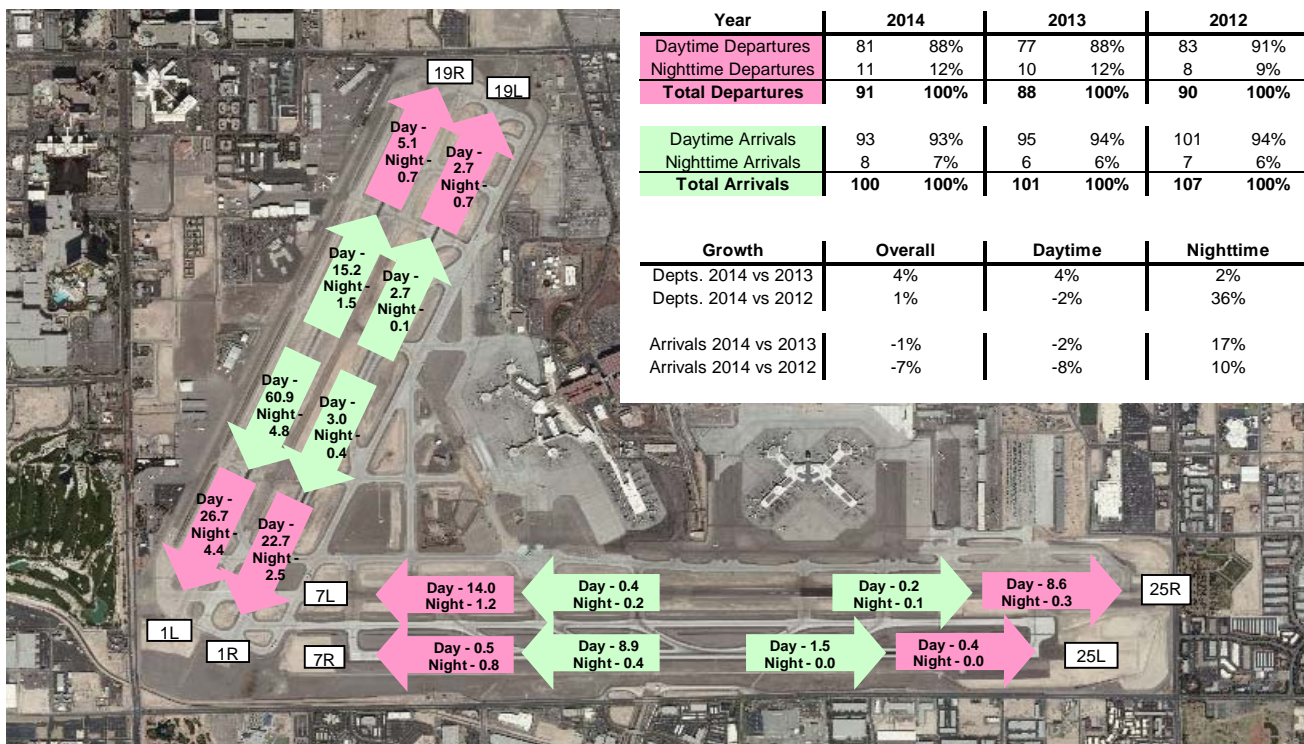


#### Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft\* - May 2014



\* 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.

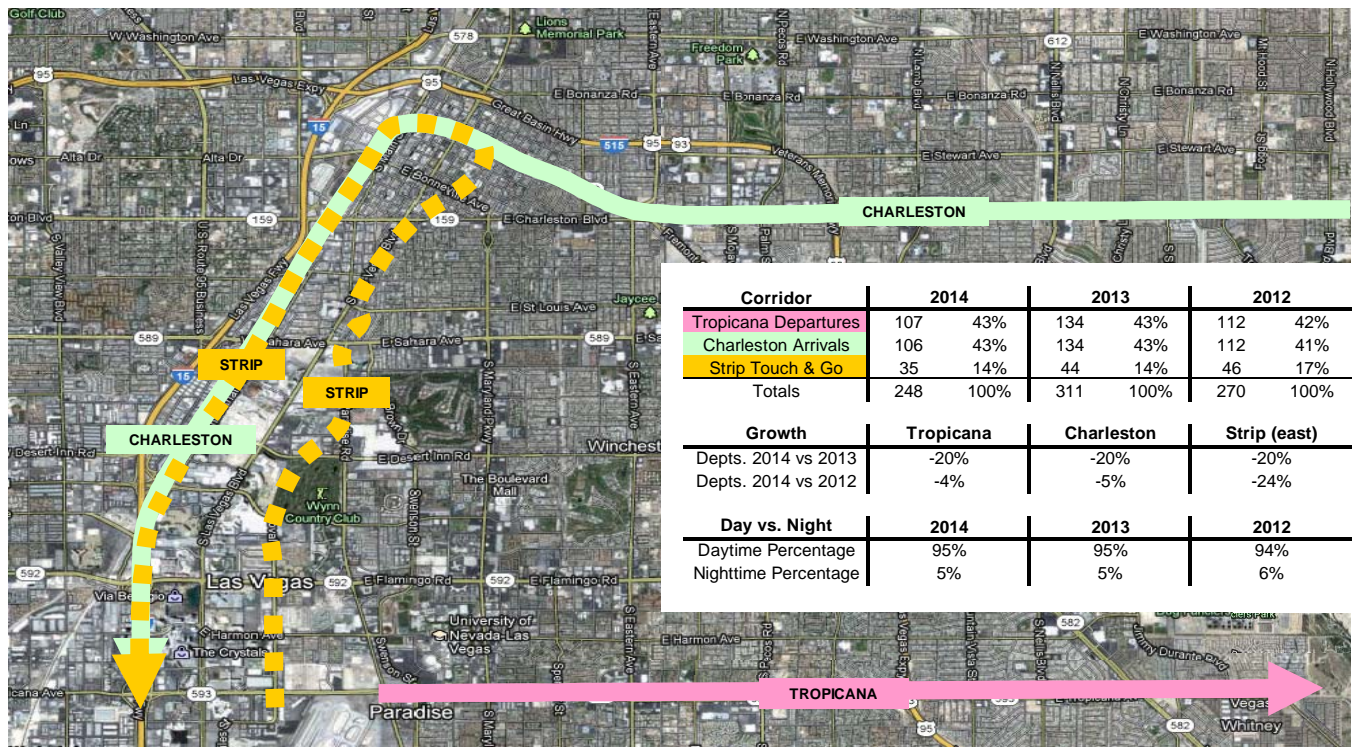
#### Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft\*\* - May 2014



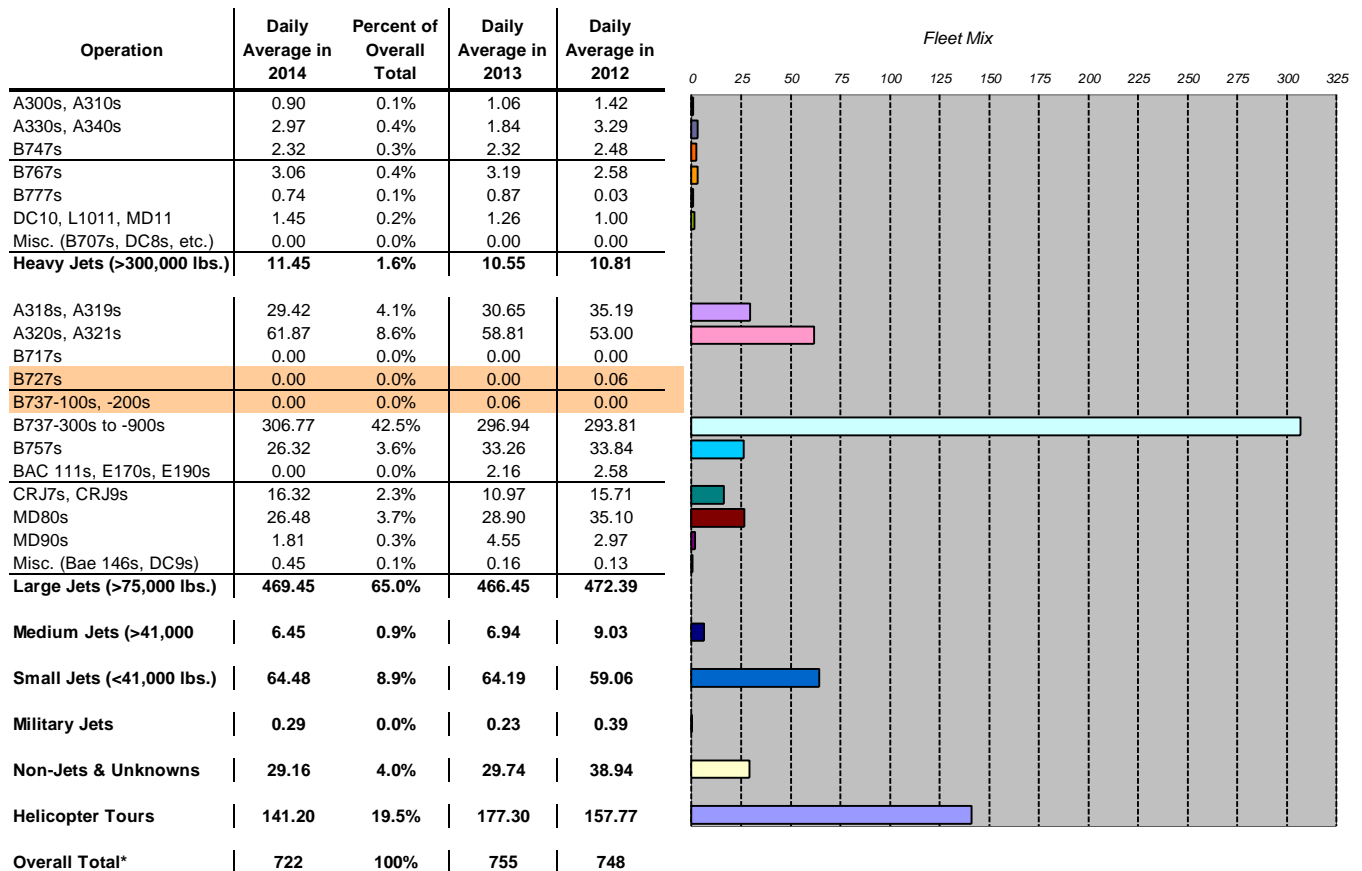
\*\* Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.



### Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - May 2014



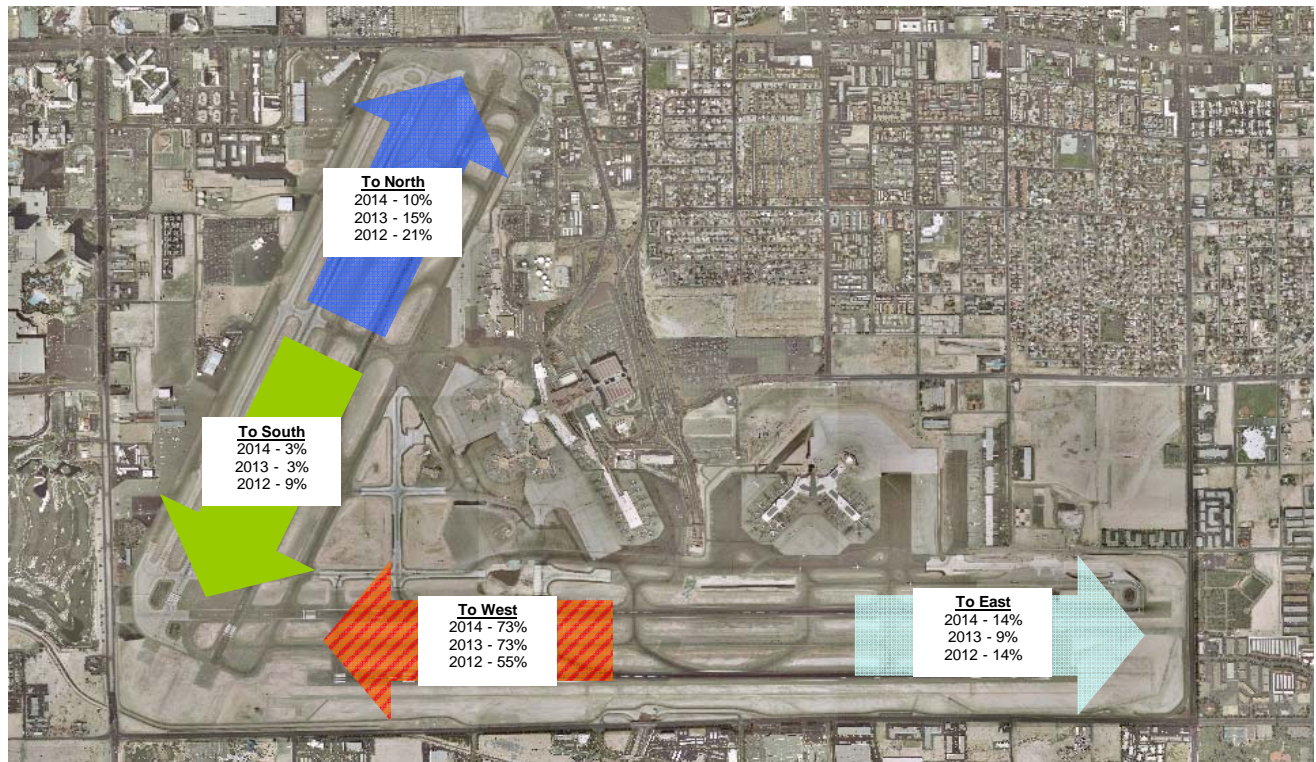
### Exhibit 7: LAS Aircraft Arrival Fleet Mix\* - May 2014



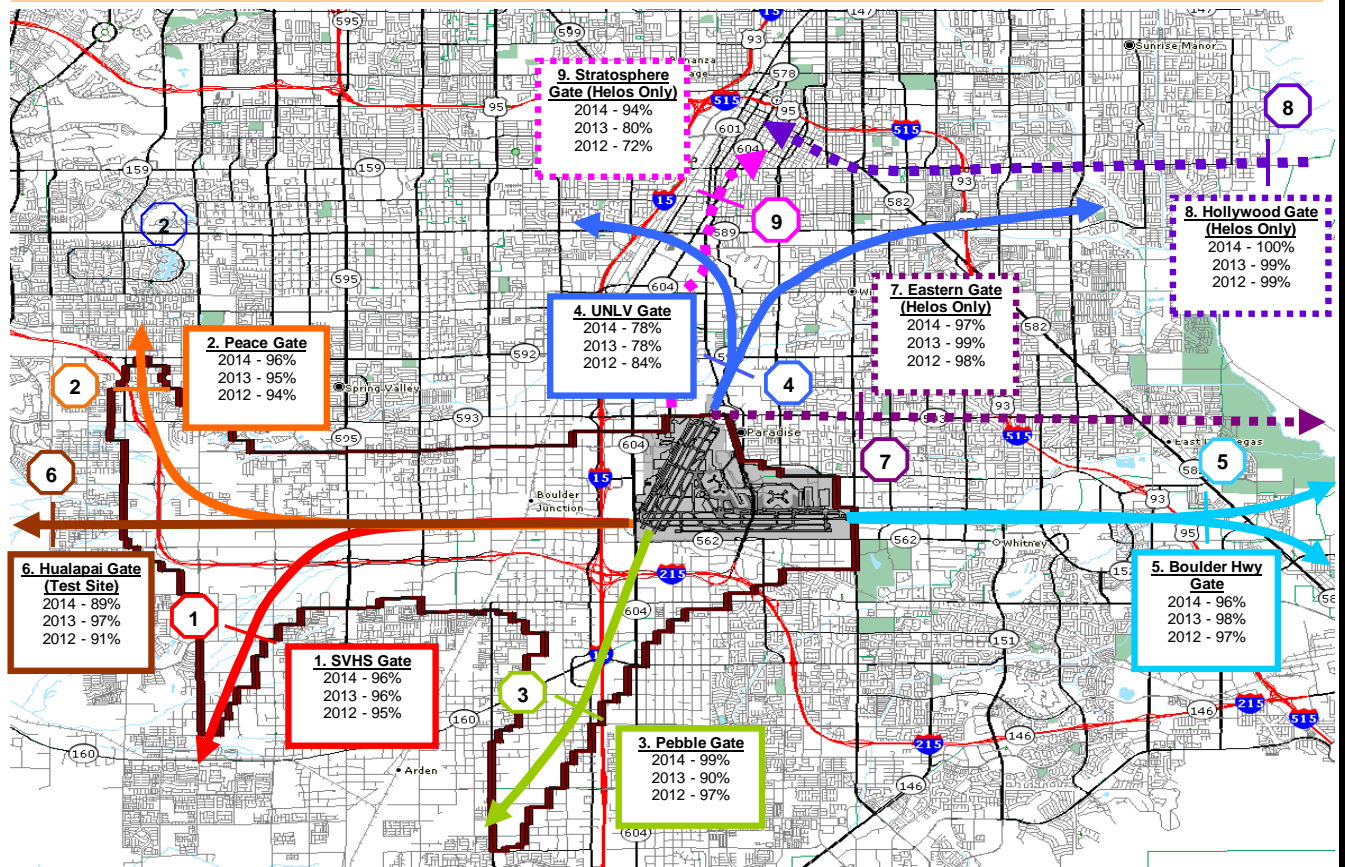
\* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.



**Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft\* - May 2014 to 2012**



**Exhibit 9: "Gate" Compliance for Large Aircraft\* & LAS Helicopter Tours - May 2014**



\* 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, A350, 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 2014

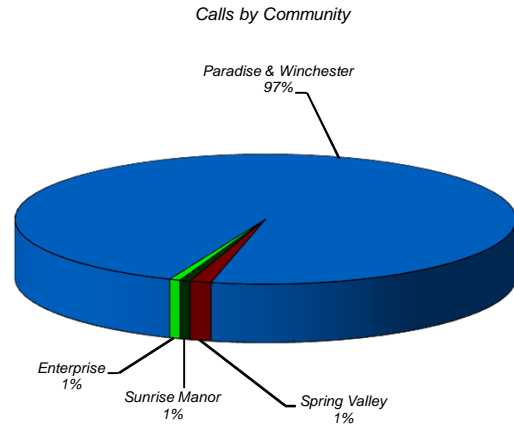
Community	No. of Calls in 2014	No. of Callers in 2014	No. of Calls in 2013	No. of Calls in 2012
City of Boulder City			2	10
City of Henderson			1	
City of Las Vegas				
City of North Las Vegas				
Enterprise	1	1		
Lone Mountain				
Paradise & Winchester	142	3		7
Spring Valley	2	2	2	1
Summerlin South				
Sunrise Manor	1	1	2	
Whitney				
Location unknown				
<b>Overall Total</b>	<b>146</b>	<b>7</b>	<b>7</b>	<b>18</b>

Difference between 2013 and 2012 Total Calls: 1,986%

Difference between 2013 and 2011 Total Calls: 711%

Average Number of Calls per Caller: 20.9

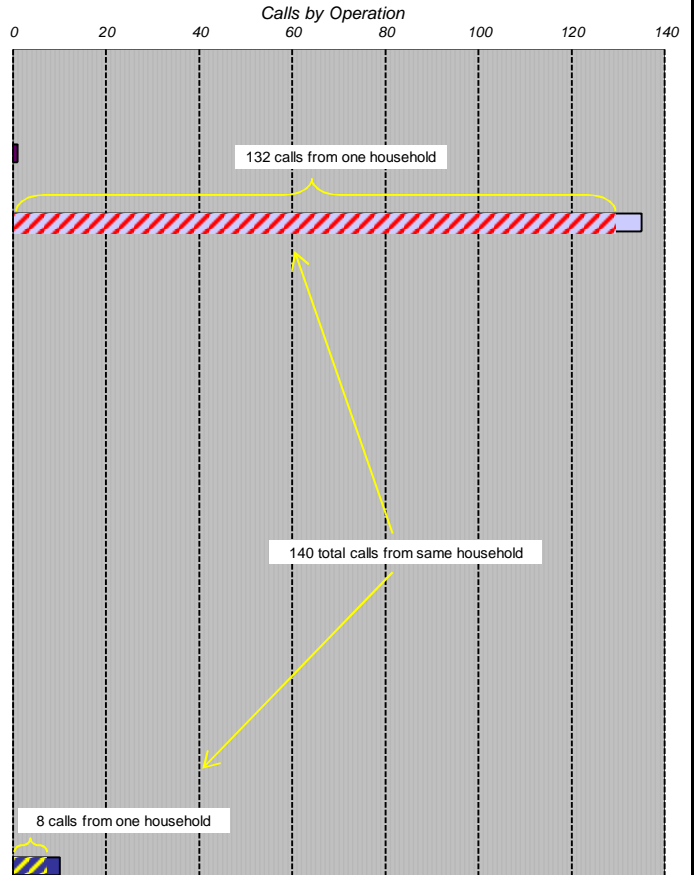
Most calls received from one household: 140



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

### Exhibit 2: Noise Complaint Calls by Type of Operation - June 2014

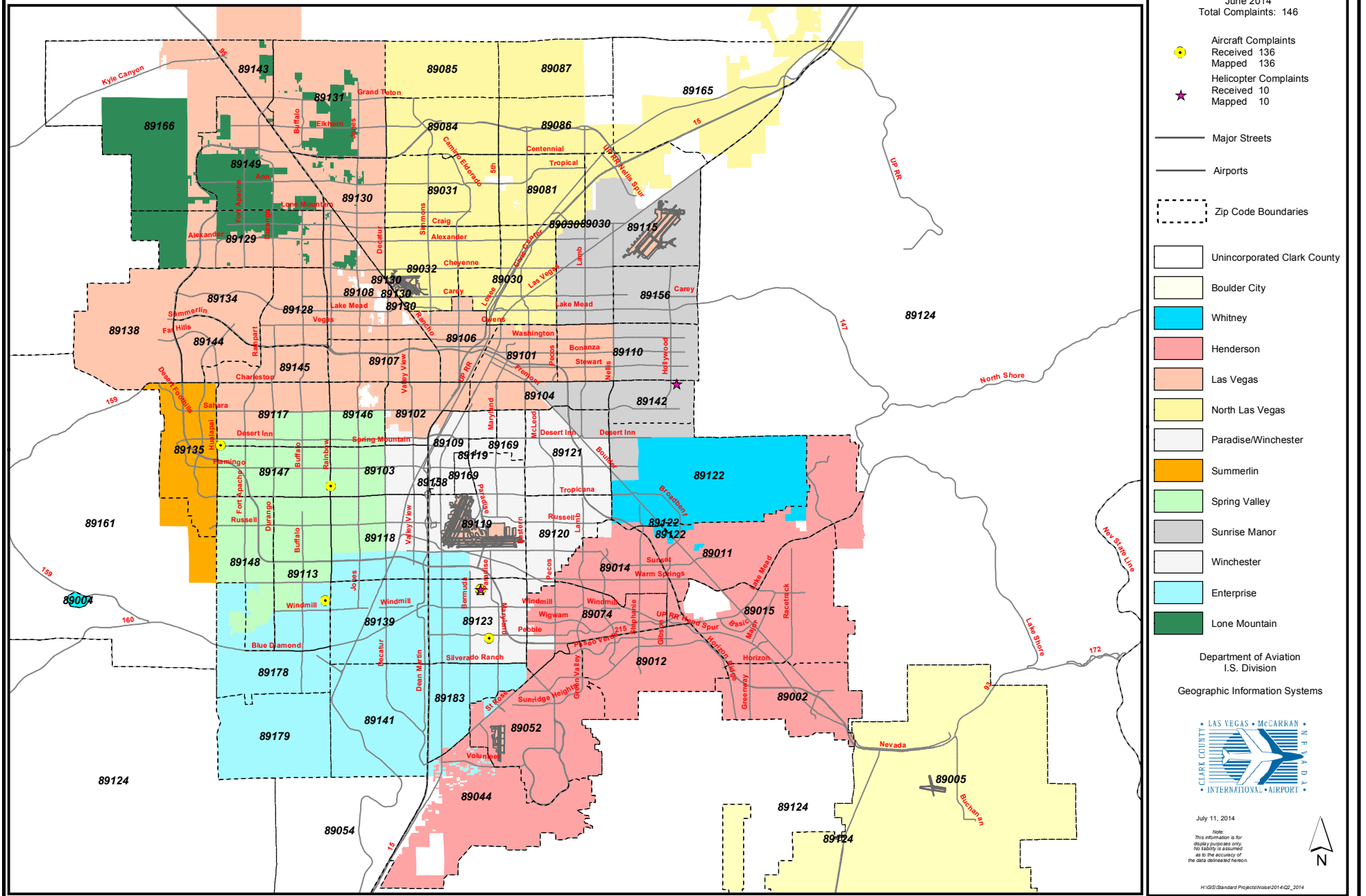
Operation	No. of Calls in 2014	Percent of Overall Total	No. of Calls in 2013	No. of Calls in 2012
LAS 01R/L Arrivals				
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				2
LAS 25R/L Arrivals				
LAS 01R/L Departures	1	0.7%	1	1
LAS 07R/L Departures				4
LAS 19R/L Departures				
LAS 25R/L Departures	135	92.5%	2	
LAS Run-ups				3
LAS GA				
LAS Other				
<b>LAS Total</b>	<b>136</b>	<b>93.2%</b>	<b>3</b>	<b>10</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				
VGT Other				
<b>VGT Total</b>	<b>0</b>	<b>0.0%</b>	<b>0</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	1
HND Other				
<b>HND Total</b>	<b>0</b>	<b>0.0%</b>	<b>1</b>	<b>1</b>
<b>Helicopters**</b>	<b>10</b>	<b>6.8%</b>	<b>3</b>	<b>7</b>
<b>Overall Total</b>	<b>146</b>	<b>100%</b>	<b>7</b>	<b>18</b>



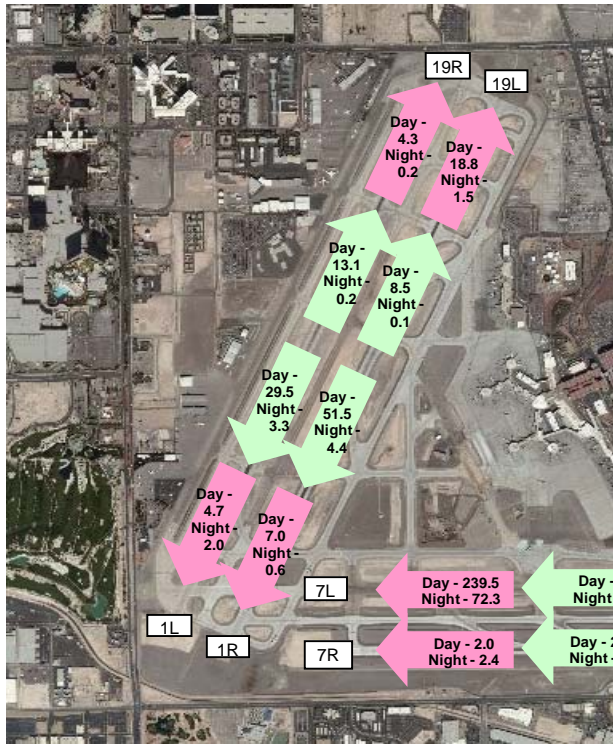
\*\* Note that helicopter noise complaints are not tied to a specific facility since the operation cannot always be associated to a specific airport. Additionally, helicopter calls do not include those associated with operations conducted by the Metropolitan Police Department or those associated with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



### Exhibit 3: Aircraft Noise Complaints by Community - June 2014



#### Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft\* - June 2014



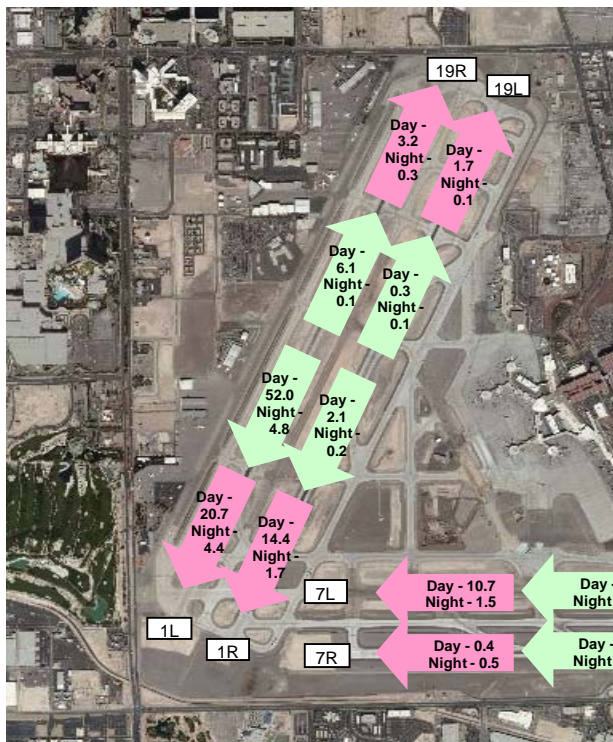
Year	2014		2013		2012	
Daytime Departures	361	82%	346	80%	377	83%
Nighttime Departures	80	18%	85	20%	79	17%
<b>Total Departures</b>	<b>441</b>	<b>100%</b>	<b>431</b>	<b>100%</b>	<b>456</b>	<b>100%</b>

Daytime Arrivals	424	87%	407	86%	420	87%
Nighttime Arrivals	63	13%	67	14%	64	13%
<b>Total Arrivals</b>	<b>487</b>	<b>100%</b>	<b>474</b>	<b>100%</b>	<b>484</b>	<b>100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	2%	5%	-6%
Depts. 2014 vs 2012	-3%	-4%	1%
Arrivals 2014 vs 2013	3%	4%	-6%
Arrivals 2014 vs 2012	1%	1%	-1%

\* 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\*\* - June 2014



Year	2014		2013		2012	
Daytime Departures	66	88%	60	87%	69	90%
Nighttime Departures	9	12%	9	13%	8	10%
<b>Total Departures</b>	<b>75</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>77</b>	<b>100%</b>

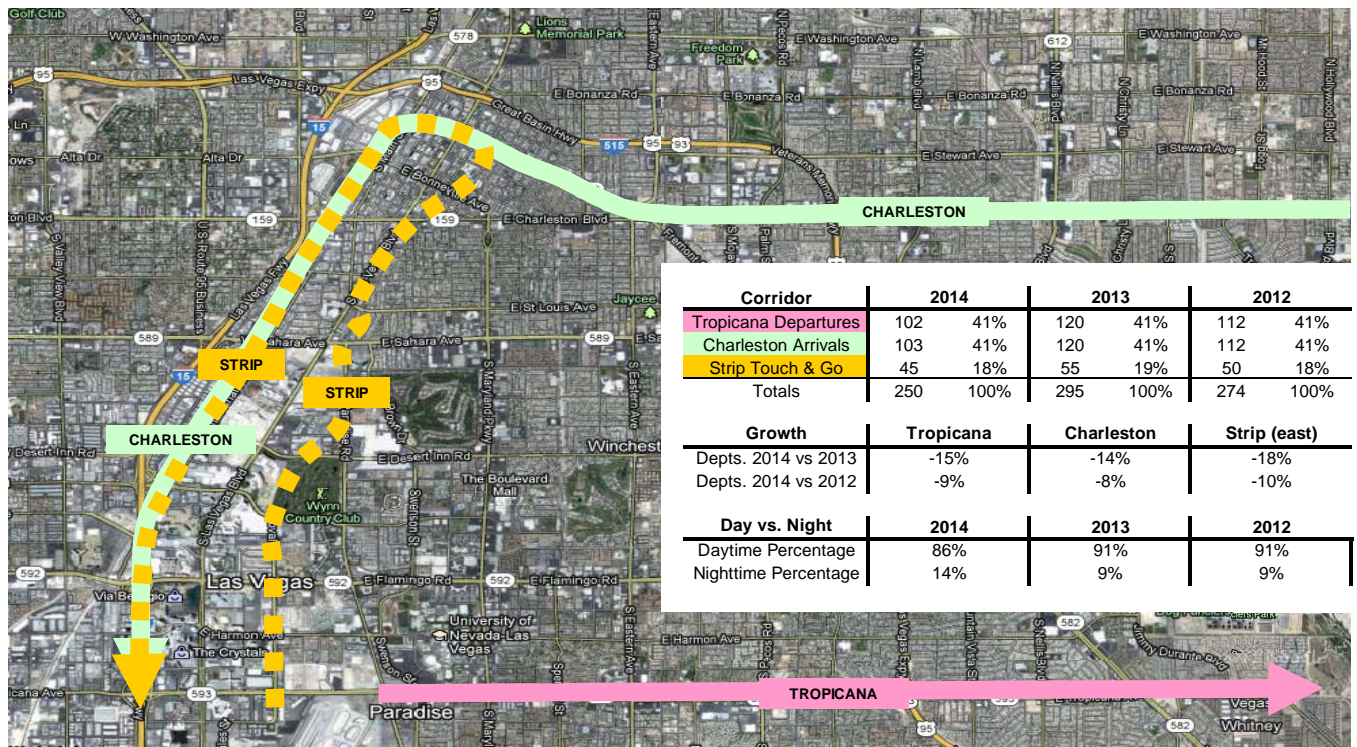
Daytime Arrivals	77	93%	70	92%	85	94%
Nighttime Arrivals	6	7%	6	8%	6	6%
<b>Total Arrivals</b>	<b>83</b>	<b>100%</b>	<b>76</b>	<b>100%</b>	<b>91</b>	<b>100%</b>

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	9%	11%	-1%
Depts. 2014 vs 2012	-2%	-3%	10%
Arrivals 2014 vs 2013	9%	10%	-5%
Arrivals 2014 vs 2012	-9%	-10%	0%

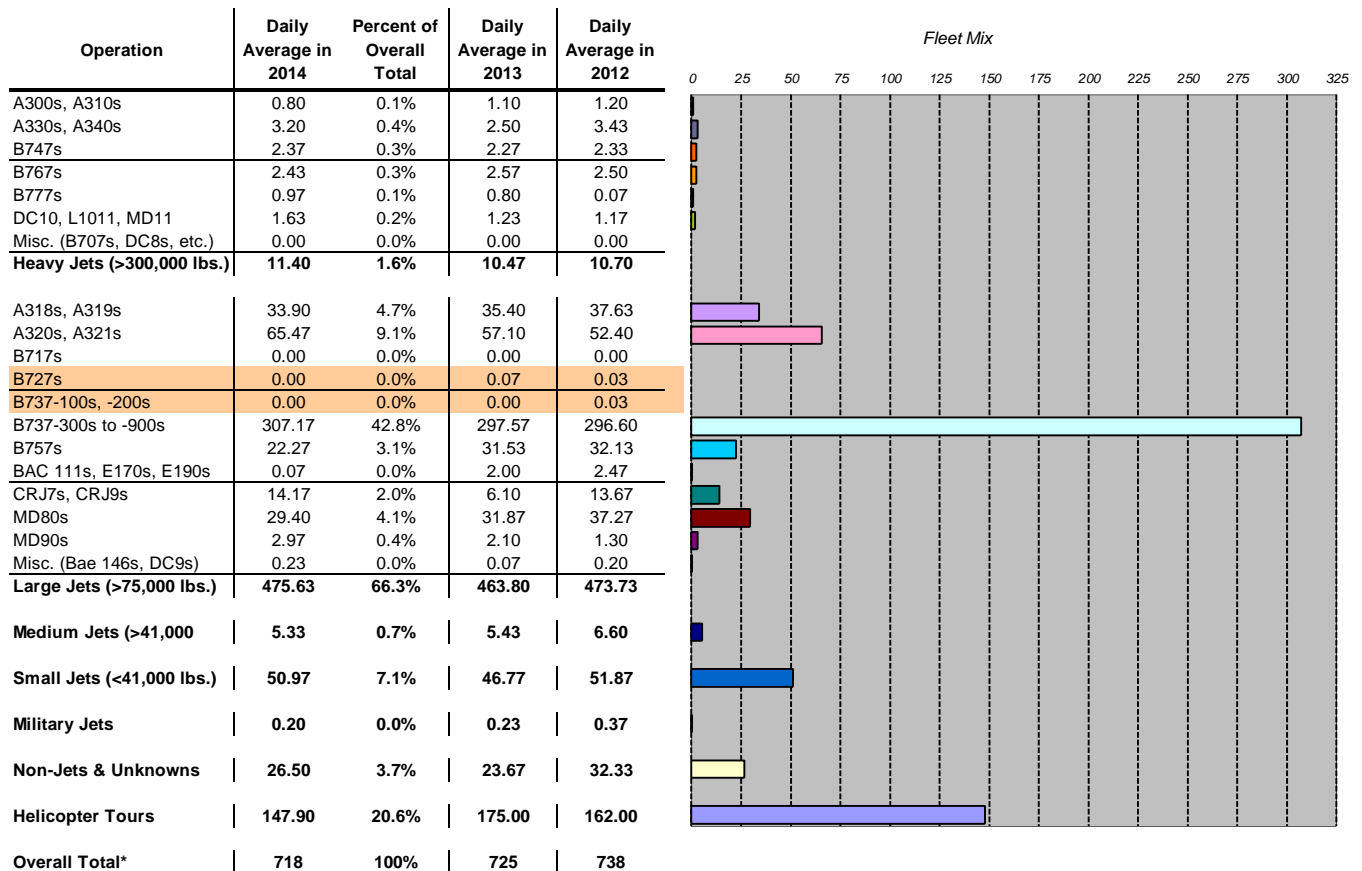
\*\* Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.



### Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - June 2014



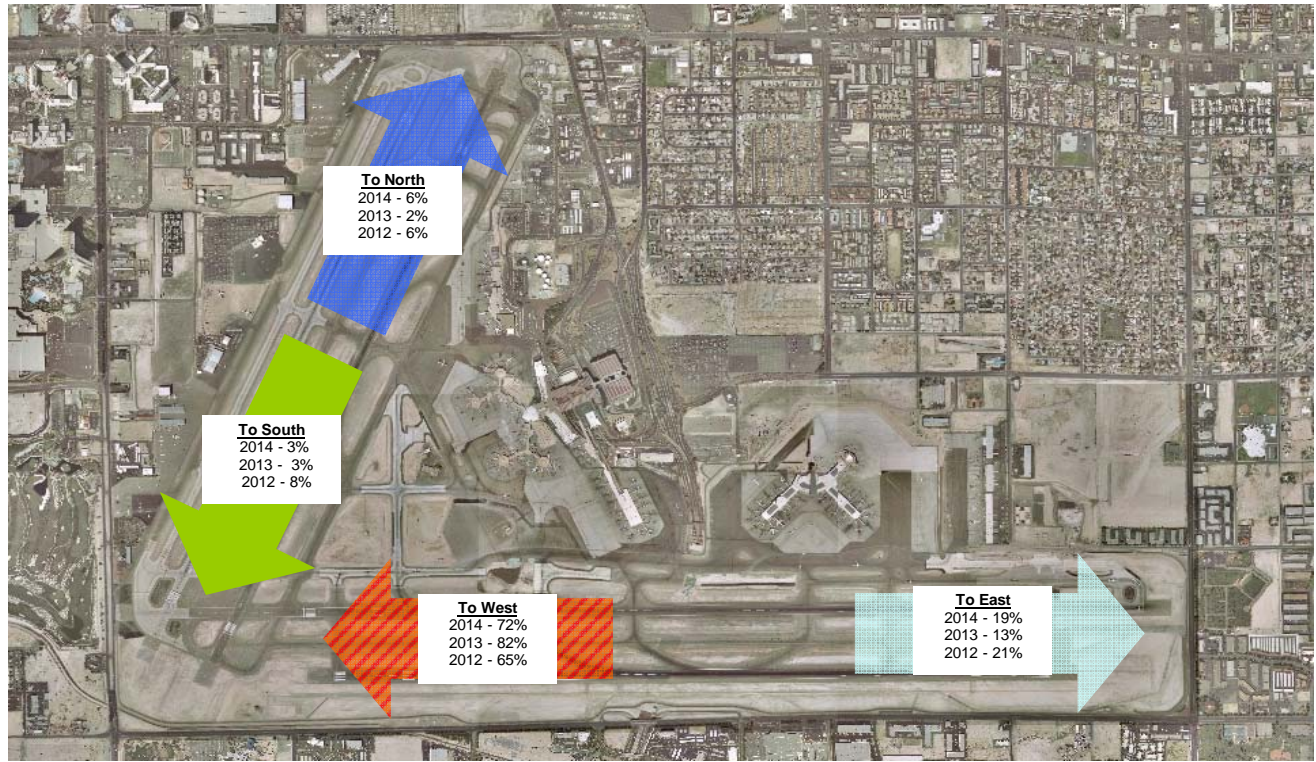
### Exhibit 7: LAS Aircraft Arrival Fleet Mix\* - June 2014



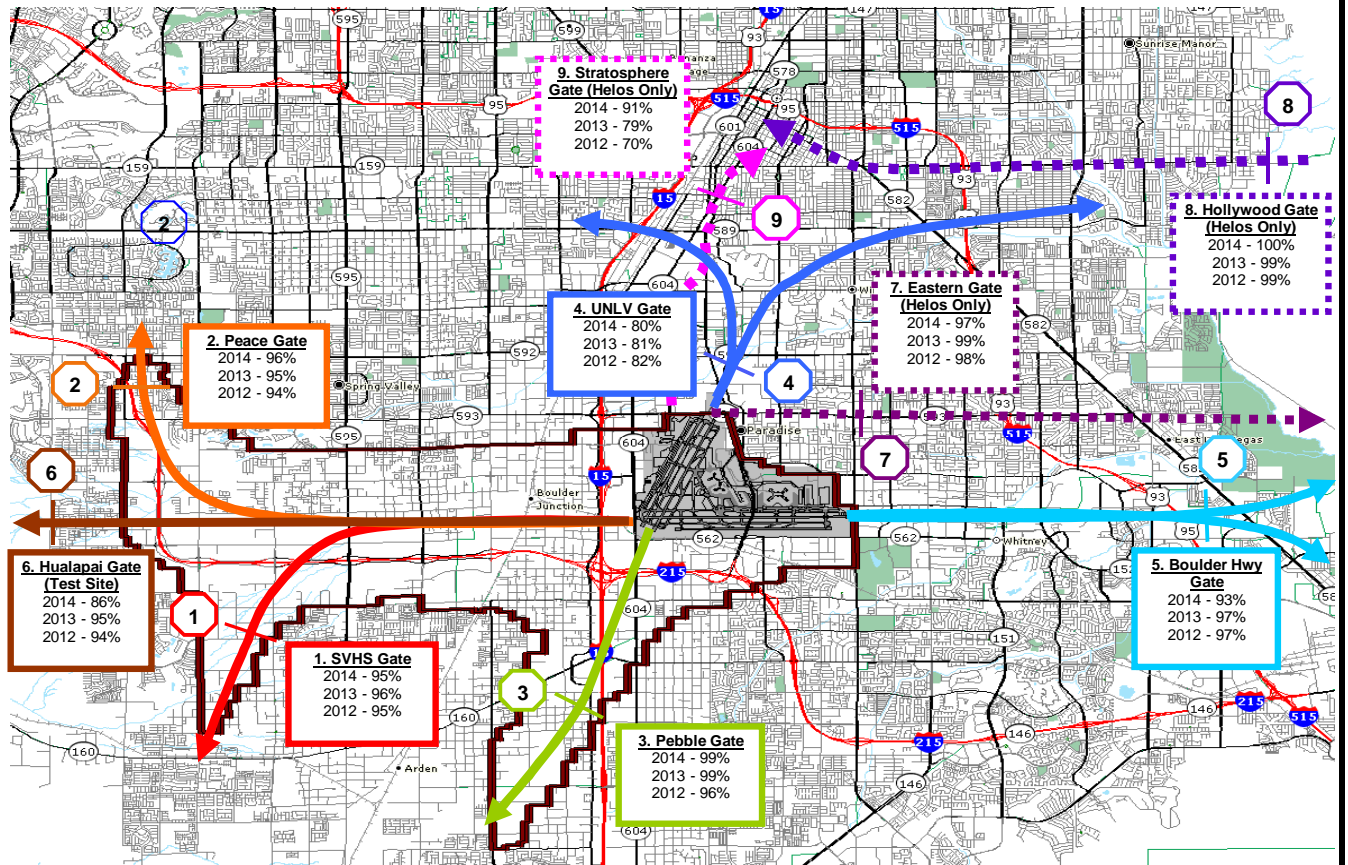
\* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.



**Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft\* - June 2014 to 2012**



**Exhibit 9: "Gate" Compliance for Large Aircraft\* & LAS Helicopter Tours - June 2014**



\* 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, A350, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.