

MEMORANDUM

DEPARTMENT OF AVIATION

TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER

SUBJECT: APRIL THROUGH JUNE 2015 NOISE COMPLAINT REPORTS

DATE: JULY 24, 2015

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for April through June 2015. 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 2015: 269 total complaints - a 65% decrease from 2014 and a 356% increase from 2013. On average, each caller (or household) issued 16.8 calls. The most calls received from one household totaled 253.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 256 calls (95%). 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 94% of the total calls.

Calls by Operation - (Exhibit 2)

LAS: 100% of the total calls were due to *LAS* fixed-wing operations.

- 60% were due to departures to the south from Runways 19L and 19R (96% from one household).
- 39% were due to departures to the north from Runways 01L and 01R (96% from one household, which is the same household that issued 96% of the calls for Runways 19L and 19R).

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

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

Helos: 0% of the total calls were due to *helicopter* operations.

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

Overall: 418 daily *departures*¹ – no change from 2014 and 1% decrease from 2013.

- 41% of departures were to the north, 27% south, 26% west, and 6% east.

487 daily *arrivals* – a 7% increase from 2014 and 3% increase from 2013.

- 65% of arrivals were from the east, 21% south, 13% north, 1% west.

Daytime: 335 daily *departures*² – a 4% decrease from 2014 and 3% decrease from 2013.

- 42% of departures were to the north, 25% south, 25% west, and 8% east.

417 daily *arrivals* – a 3% increase from 2014 and no change from 2013.

- 63% of arrivals were from the east, 23% south, 13% north, and 1% west.

¹ 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.

² See footnote #1.

Nighttime: 84 daily *departures*³ – a 20% increase from 2014 and 9% increase from 2013.
▪ 35% of departures were to the north, 33% west, and 32% south.
70 daily *arrivals* – a 33% increase from 2014 and 24% increase from 2013.
▪ 77% of arrivals were from the east, 13% south, and 10% north.

Daytime vs. Nighttime: Approximately 80% of all *departures* and 86% of all *arrivals* occurred during the daytime hours.

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

Overall: 79 daily *departures*⁴ – a 3% increase from 2014 and 2% decrease from 2013.
▪ 44% of departures were to the north, 43% south, 6% west, and 6% east.
96 daily *arrivals* – an 8% increase from 2014 and no change from 2013.
▪ 43% of arrivals were from the north, 38% south, 15% east, and 3% west.

Daytime: 70 daily *departures*⁵ – a 3% increase from 2014 and 3% decrease from 2013.
▪ 47% of departures were to the north, 41% south, 7% east, and 5% west.
88 daily *arrivals* – a 6% increase from 2014 and 1% decrease from 2013.
▪ 42% of arrivals were from the north, 39% south, 16% east, and 4% west.

Nighttime: 9 daily *departures*⁶ – a 7% increase from 2014 and 10% increase from 2013.
▪ 60% of departures were to the south, 26% north, 12% west, and 1% east.
8 daily *arrivals* – a 38% increase from 2014 and 20% increase from 2013.
▪ 62% of arrivals were from the north, 28% south, 10% east, and 1% west.

Daytime vs. Nighttime: Approximately 89% of all *departures* and 92% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 113 daily *departures* - a 7% increase from 2014 and a 10% decrease from 2013.

Charleston: 115 daily *arrivals* - a 10% increase from 2014 and an 8% decrease from 2013.

Strip: 45 daily *touch and go's* - a 64% increase from 2014 and a 38% increase from 2013.

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 64% of the daily traffic.

³ See footnote #1.

⁴ See footnote #1.

⁵ See footnote #1.

⁶ 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 22% 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 2015, 26% departed to the *west* (from LAS's primary departure runways). This figure was 67% in 2014 and 73% in 2013.

Secondary: In 2015, 27% departed to the *south* (from LAS's secondary departure runways). This figure was 4% in 2014 and 3% in 2013.

Alternate 1: In 2015, 41% departed to the *north* (from LAS's alternate departure runways). This figure was 14% in 2014 and 16% in 2013.

Alternate 2: In 2015, 6% departed to the *east* (from LAS's alternate departure runways). This figure was 15% in 2014 and 8% in 2013.

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

SVHS: In 2015, 97% 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 2014 and 96% in 2013.

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 2015, 94% 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 2014 and 96% in 2013.

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 2015, 97% 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 almost 100% in 2014 and 93% in 2013.

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 2015, 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 81% in 2014 and 77% in 2013.

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 2015, 95% of the large air carrier aircraft that departed to the east from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 94% in 2014 and 98% in 2013.

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 2015, 78% 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 87% in 2014 and 93% in 2013. The decrease to 78% occurred do to aircraft initiating their turn prior to the compliance gate.

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 2015, 96% 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 98% in 2014 and 99% in 2013.

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 2015, 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 almost 100% in 2014 and 99% in 2013.

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 2015, 99% 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 98% in 2014 and 90% in 2013.

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 **non-typical** residential complaints, flight activity, fleet mix, and gate compliance due to the number of complaints tied to a single household, the increase in departures to the north and south resulting from the closure of Runway 25R/07L for renovation, and reduced compliance percentages for the Hualapai Way compliance gate.

May 2015: 256 total complaints - a 43% decrease from 2014 and a 753% increase from 2013. On average, each caller (or household) issued 9.8 calls. The most calls received from one household totaled 221.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 235 calls (92%). (See April 2015 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 86% of the total calls.

Calls by Operation - (Exhibit 2)

LAS: 96% of the total calls were due to *LAS* fixed-wing operations.

- 86% were due to departures to the south from Runways 19L and 19R (99% from one household).

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

HND: 2% of the total calls received were due to *HND* fixed-wing operations. All calls were due to aerobatic flight activity.

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

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

Overall: 449 daily *departures*⁷ – a 2% increase from 2014 and 5% increase from 2013.

- 77% of departures were to the west, 17% east, 4% south, and 2% north.

492 daily *arrivals* – a 2% decrease from 2014 and 1% decrease from 2013.

- 72% of arrivals were from the east, 19% north, 6% west, and 3% from the south.

Daytime: 356 daily *departures*⁸ – a 2% decrease from 2014 and 2% increase from 2013.

- 74% of departures were to the west, 21% east, 4% south, and 2% north.

416 daily *arrivals* – a 2% decrease from 2014 and 1% decrease from 2013.

- 70% of arrivals were from the east, 20% north, 7% west, and 3% south.

Nighttime: 93 daily *departures*⁹ – a 23% increase from 2014 and 19% increase from 2013.

- 91% of departures were to the west, 4% south, 3% north, and 1% east.

75 daily *arrivals* – a 34% increase from 2014 and a 30% increase from 2013.

- 86% of arrivals were from the east, 13% north, 1% west, and 1% south.

Daytime vs. Nighttime: Approximately 79% of all *departures* and 85% of all *arrivals* occurred during the daytime hours.

⁷ See footnote #1.

⁸ See footnote #1.

⁹ See footnote #1.

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

- Overall:** 100 daily *departures*¹⁰ – a 9% increase from 2014 and 14% increase from 2013.
▪ 69% of departures were to the south, 17% east, 12% west, and 3% north.
109 daily *arrivals* – an 8% increase from 2014 and 8% increase from 2013.
▪ 80% of arrivals were from the north, 8% east, 8% west, and 4% south.

Overall flight activity and ramp use during this time period was influenced by the attraction of the boxing match between Floyd Mayweather and Manny Pacquiao on May 2, 2015.

- Daytime:** 89 daily *departures*¹¹ – a 10% increase from 2014 and a 15% increase from 2013.
▪ 67% of departures were to the south, 19% east, 12% west, and 2% north.
100 daily *arrivals* – an 8% increase from 2014 and 6% increase from 2013.
▪ 80% of arrivals were from the north, 9% west, 8% east, and 4% south.

- Nighttime:** 11 daily *departures*¹² – a 5% increase from 2014 and a 7% increase from 2013.
▪ 83% of departures were to the south, 11% west, 4% north, and 1% east.
9 daily *arrivals* – a 15% increase from 2014 and a 34% increase from 2013.
▪ 88% of arrivals were from the north, 6% south, and 6% east.

Daytime vs. Nighttime: Approximately 89% of all *departures* and 92% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 119 daily *departures* – a 12% increase from 2014 and an 11 decrease from 2013.

Charleston: 121 daily *arrivals* - a 14% increase from 2014 and a 9% decrease from 2013.

Strip: 66 daily *touch and go's* - a 90% increase from 2014 and a 52% increase from 2013.

Daytime vs. Nighttime: Approximately 92% 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 61% 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.

¹⁰ See footnote #1.

¹¹ See footnote #1.

¹² See footnote #1.

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

Non-Jet: *Piston-driven* aircraft and unassigned aircraft types accounted for 3% of the daily traffic.

Heli: *Touring helicopters* accounted for 24% 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 2015, 77% departed to the *west* (from LAS's primary departure runways). This figure was 73% in 2014 and 73% in 2013.

Secondary: In 2015, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2014 and 3% in 2013.

Alternate 1: In 2015, 2% departed to the *north* (from LAS's alternate departure runways). This figure was 10% in 2014 and 15% in 2013.

Alternate 2: In 2015, 17% departed to the *east* (from LAS's alternate departure runways). This figure was 14% in 2014 and 9% in 2013.

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

SVHS: In 2015, 97% 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 2014 and 94% in 2013. (See April 2015 synopsis for specific location of the SVHS gate.)

Peace: In 2015, 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 96% in 2014 and 95% in 2013. (See April 2015 synopsis for specific location of the Peace gate.)

Pebble: In 2015, 98% 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 2014 and 90% in 2013. (See April 2015 synopsis for specific location of the Pebble gate.)

UNLV: In 2015, 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 78% in 2014 and 78% in 2013. (See April 2015 synopsis for specific location of the UNLV gate.)

Boulder: In 2015, 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 96% in 2014 and 98% in 2013. (See April 2015 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2015, 95% 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 89% in 2014 and 97% in 2013. (See April 2015 synopsis for specific location of the Hualapai gate.)

Eastern: In 2015, 93% 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 2014 and 99% in 2013. (See April 2015 synopsis for specific location of the Eastern gate.)

Hollywood: In 2015, 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 almost 100% in 2014 and 99% in 2013. (See April 2015 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2015, 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 94% in 2014 and 80% in 2013. (See April 2015 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **non-typical** residential complaints, flight activity, fleet mix, and gate compliance due to the number of complaints tied to a single household, the increase in departures to the east due to consistent temperatures of 100 degrees or greater, and increased GA activity associated with the boxing match between Floyd Mayweather and Manny Pacquiao .

June 2015: 111 total complaints – a 24% decrease from 2014 and a 1,486% increase from 2013. On average, each caller (or household) issued 6.5 calls. The most calls received from one household totaled 81.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 90 calls (81%). (See April 2015 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 73% of the total calls.

Calls by Operation - (Exhibit 2)

LAS: 87% of the total calls received were due to *LAS* fixed-wing operations.
▪ 69% were due to departures to the south from Runways 19L and 19R (100% from one household).

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

HND: 4% of the total calls received were due to *HND* fixed-wing operations (100% from one household). All calls were due to aerobatic flight activity.

Helis: 9% of the total calls received were due to *helicopter* operations (50% from one household, which is also the same household noted for complaint calls for departures to the south from Runway 19L and 19R).

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

- Overall:** 448 daily *departures*¹³ – a 1% increase from 2014 and a 4% increase from 2013.
▪ 76% of departures were to the west, 17% east, 3% north, and 3% south.
498 daily *arrivals* – a 2% increase from 2014 and 5% increase from 2013.
▪ 72% of arrivals were from the east, 18% north, 7% west and 3% south.
- Daytime:** 350 daily *departures*¹⁴ – a 3% decrease from 2014 and 1% increase from 2013.
▪ 73% of departures were to the west, 22% east, 3% north, and 3% south.
416 daily *arrivals* – a 2% decrease from 2014 and 2% increase from 2013.
▪ 69% of arrivals were from the east, 20% north, 8% west, and 3% south.
- Nighttime:** 98 daily *departures*¹⁵ – a 22% increase from 2014 and 15% increase from 2013.
▪ 90% of departures were to the west, 6% north, 2% south, and 2% east.
82 daily *arrivals* – a 30% increase from 2014 and 22% increase from 2013.
▪ 87% of arrivals were from the east, 10% north, 3% south, and 1% west.

Daytime vs. Nighttime: Approximately 78% of all *departures* and 84% of all *arrivals* occurred during the daytime hours.

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

- Overall:** 69 daily *departures*¹⁶ – a 7% decrease from 2014 and a 1% increase from 2013.
▪ 68% of departures were to the south, 19% east, 10% west, and 3% north.
75 daily *arrivals* – a 9% decrease from 2014 and a 1% decrease from 2013.
▪ 80% of arrivals were from the north, 9% west, 6% east, and 5% south.
- Daytime:** 62 daily *departures*¹⁷ – a 7% decrease from 2014 and a 3% increase from 2013.
▪ 67% of departures were to the south, 21% east, 9% west, and 3% north.
70 daily *arrivals* – a 10% decrease from 2014 and a 1% decrease from 2013.
▪ 79% of arrivals were from the north, 10% west, 6% east, and 5% south.
- Nighttime:** 8 daily *departures*¹⁸ – a 9% decrease from 2014 and a 10% decrease from 2013.
▪ 74% of departures were to the south, 15% west, 7% north, and 4% east.
6 daily *arrivals* – a 2% decrease from 2014 and 6% decrease from 2013.
▪ 84% of arrivals were from the north, 9% south, 5% east, and 2% west.

Daytime vs. Nighttime: Approximately 89% of all *departures* and 92% of all *arrivals* occurred during the daytime hours.

¹³ See footnote #1.

¹⁴ See footnote #1.

¹⁵ See footnote #1.

¹⁶ See footnote #1.

¹⁷ See footnote #1.

¹⁸ See footnote #1.

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

Tropicana: 108 daily *departures* – a 6% increase from 2014 and a 10% decrease from 2013.

Charleston: 110 daily *arrivals* - a 7% increase from 2014 and a 9% decrease from 2013.

Strip: 84 daily *touch and go's* - an 87% increase from 2014 and a 53% increase from 2013.

Increases noted during this time period occurred in part due to numerous helicopter flights supporting the 2015 Electric Daisy Carnival, which took place on July 19 through 21, 2015.

Daytime vs. Nighttime: Approximately 76% 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 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.

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 3% of the daily traffic.

Heli: **Touring helicopters** accounted for 25% 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 2015, 76% departed to the **west** (from LAS's primary departure runways). This figure was 72% in 2014 and 82% in 2013.

Secondary: In 2015, 3% departed to the **south** (from LAS's secondary departure runways). This figure was 3% in 2014 and 3% in 2013.

Alternate 1: In 2015, 3% departed to the **north** (from LAS's alternate departure runways). This figure was 6% in 2014 and 2% in 2013.

Alternate 2: In 2015, 17% departed to the **east** (from LAS's alternate departure runways). This figure was 19% in 2014 and 13% in 2013.

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

- SVHS:** In 2015, 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 95% in 2014 and 96% in 2013. (See April 2015 synopsis for specific location of the SVHS gate.)
- Peace:** In 2015, 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 96% in 2014 and 95% in 2013. (See April 2015 synopsis for specific location of the Peace gate.)
- Pebble:** In 2015, 98% 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 2014 and 99% in 2013. (See April 2015 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2015, 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 80% in 2014 and 81% in 2013. (See April 2015 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2015, 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 93% in 2014 and 97% in 2013. (See April 2015 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2015, 94% 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 86% in 2014 and 95% in 2013. (See April 2015 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2015, 90% 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 2014 and 99% in 2013. (See April 2015 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2015, 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 almost 100% in 2014 and 99% in 2013. (See April 2015 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2015, 99% 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 91% in 2014 and 79% in 2013. (See April 2015 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **non-typical** residential complaints, flight activity, fleet mix, and gate compliance due to the number of complaints tied to a single household, and the increase in departures to the east due to consistent temperatures of 100 degrees or greater.

Other Notable Issues

Runway Renovation: On April 21, 2015, the Clark County Department of Aviation completed the first phase of the most significant capital improvement project to occur at McCarran International Airport since the opening of Terminal 3. LAS Runway 25R/07L was reopened on April 22, 2015. Phase two of the project is scheduled to begin in late October 2015 and focus will be on the resurfacing of the western half of the runway through the project's conclusion in late April/early May 2016. LAS Runway 25R/07L typically handles one-third of all takeoffs and landings annually. The timing of the construction project was carefully planned to occur during the expected shift in runway use normally experienced during the winter months. Runway use during the October-through-May construction period shifts many flights to the north-south runways.

Increased GA Traffic: On May 2, 2015, the "Fight of the Century" between Floyd Mayweather and Manny Pacquiao resulted in increased traffic levels for GA and private jet aircraft utilizing ramp space at the McCarran International Airport. Traffic among private aircraft reached record volume, with some flights being directed to Henderson and North Las Vegas to park their aircraft.

Electric Daisy Carnival: On June 19 through 21, 2015, this concert event was held at the Las Vegas Motor Speedway, with a total attendance in excess of 400,000 people. Helicopter tour operators provided an estimated 742 passenger flights to and from the event over the three day period, resulting in zero noise complaints issued.

Eastbound Departure Increase: With temperatures averaging and exceeding 100 degrees on a consistent basis, the FAA has increased use of Runway 07L for departures. Extreme temperatures and low humidity impact performance of larger aircraft, requiring additional runway distance for a safe departure. With an elevation difference of 142 feet between the opposite ends of LAS Runway 25R/07L, aircraft departing Runway 07L are placed on a downhill roll enabling a more efficient and safe departure roll.

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 24, 2015

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
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Commissioner Brown, Vice-Chair
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Commissioner Scow
Rosemary Vassiliadis
Harry Waters
Brian McMahon
Timothy Baldwin
Chris Jones
Christine Crews
Jeff Jacquart
Charlie Hall
Ben Czyzewski
Dennis Anderson
Tom Peterson
Mark Silverstein
Brenda Bell
Curtis Hedgepeth

John Howard (FAA TRACON)
Jon Holman (FAA ATC)
Charlie Halterman (HND Tower)
Richard Falcon (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)

Michael Moorner (FAA ATCT)
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 2015

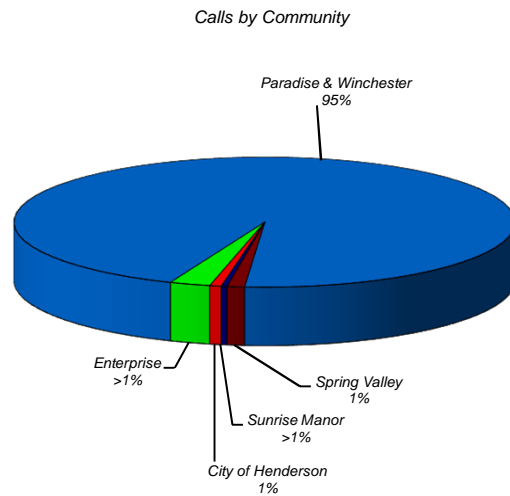
Community	No. of Calls in 2015	No. of Callers in 2015	No. of Calls in 2014	No. of Calls in 2013
City of Boulder City	2	2	6	19
City of Henderson			4	4
City of Las Vegas				
City of North Las Vegas				
Enterprise	7	7	3	4
Lone Mountain				7
Paradise & Winchester	256	4	751	2
Spring Valley	3	2	8	4
Summerlin South	1	1		
Sunrise Manor			1	19
Whitney				
Location unknown				
Overall Total	269	16	773	59

Difference between 2015 and 2014 Total Calls: -65%

Difference between 2015 and 2013 Total Calls: 356%

Average Number of Calls per Caller: 16.8

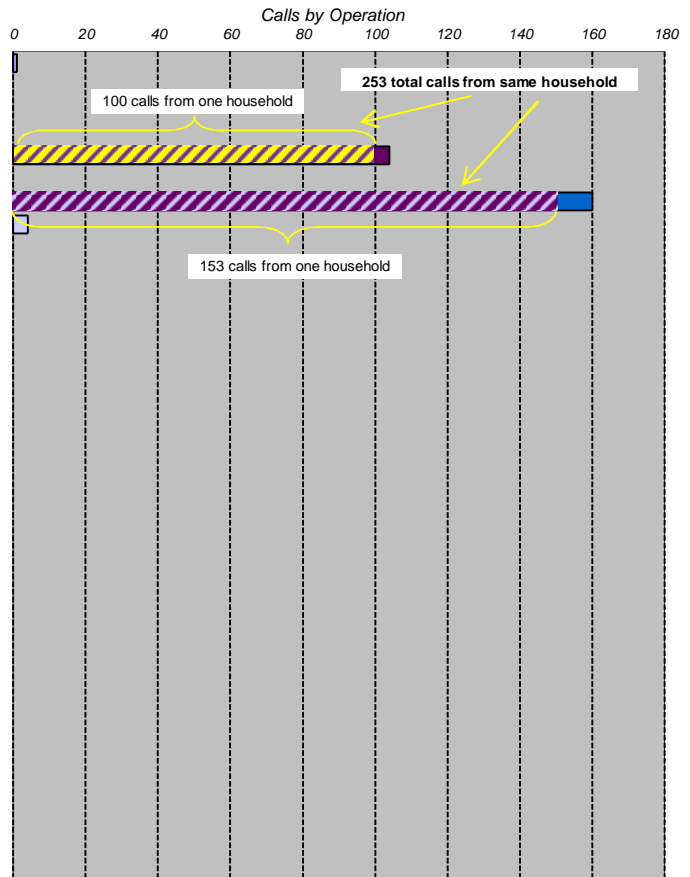
Most calls received from one household: 253



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

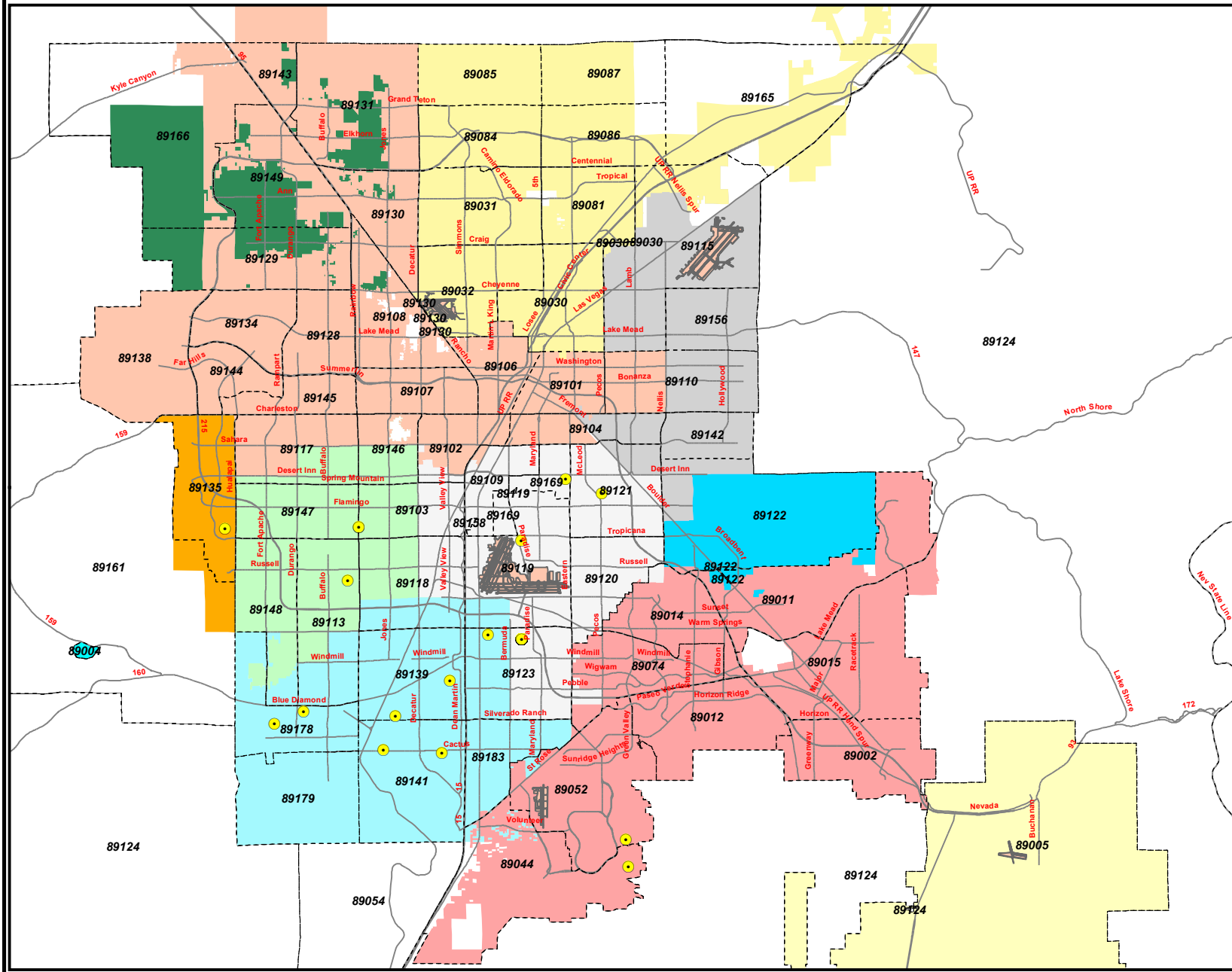
Exhibit 2: Noise Complaint Calls by Type of Operation - April 2015

Operation	No. of Calls in 2015	Percent of Overall Total	No. of Calls in 2014	No. of Calls in 2013
LAS 01R/L Arrivals	1	0.4%	1	
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals			1	
LAS 01R/L Departures	104	38.7%	409	11
LAS 07R/L Departures			40	1
LAS 19R/L Departures	160	59.5%	1	
LAS 25R/L Departures	4	1.5%	314	17
LAS Run-ups			1	
LAS GA				
LAS Other				
LAS Total	269	100.0%	767	29
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				
VGT Total	0	0.0%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA			3	14
HND Other				
HND Total	0	0.0%	3	14
Helicopters**	0	0.0%	3	16
Overall Total	269	100%	773	59



** 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 2015



Legend

April 2015
Total Complaints: 269

- Aircraft Complaints Received 269 Mapped 269
- ★ Helicopter Complaints Received 0 Mapped 0

- 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

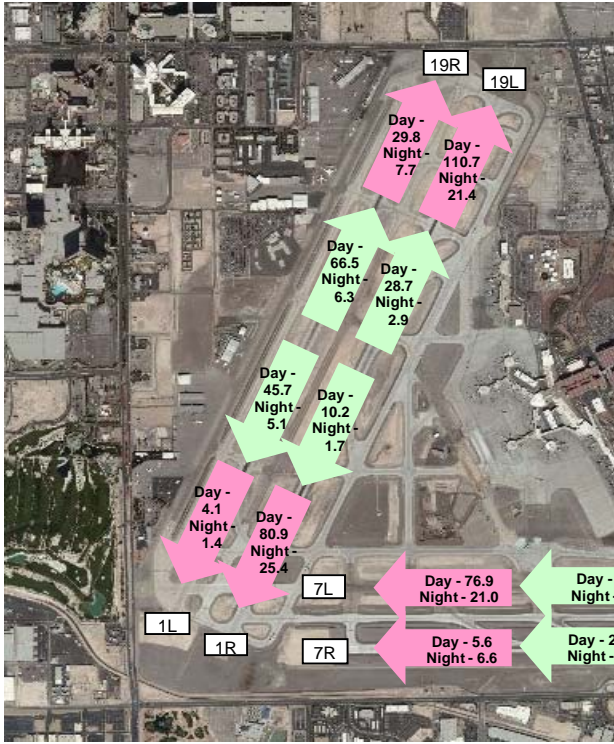
Geographic Information Systems

July 16, 2015

Note: This information is for display purposes only. No liability is assumed as to the accuracy of the data delineated hereon.

H:\GIS\Standard Projects\Noise\2015\2015_07_16_2015

Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - April 2015

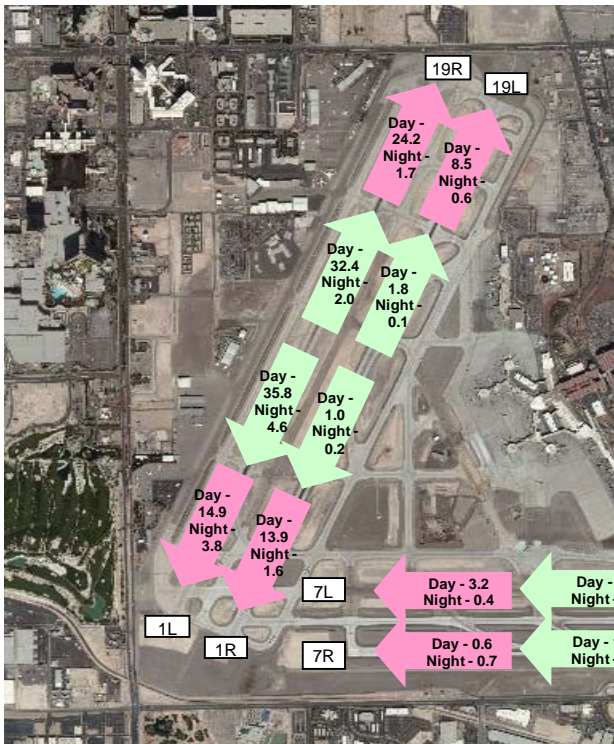


Year	2015		2014		2013	
Daytime Departures	335	80%	348	83%	345	82%
Nighttime Departures	84	20%	70	17%	77	18%
Total Departures	418	100%	418	100%	422	100%
Daytime Arrivals	417	86%	404	88%	417	88%
Nighttime Arrivals	70	14%	53	12%	57	12%
Total Arrivals	487	100%	457	100%	473	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	0%	-4%	20%
Depts. 2015 vs 2013	-1%	-3%	9%
Arrivals 2015 vs 2014	7%	3%	33%
Arrivals 2015 vs 2013	3%	0%	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** - April 2015



Year	2015		2014		2013	
Daytime Departures	70	89%	68	89%	73	90%
Nighttime Departures	9	11%	8	11%	8	10%
Total Departures	79	100%	77	100%	81	100%
Daytime Arrivals	88	92%	83	94%	89	93%
Nighttime Arrivals	8	8%	6	6%	6	7%
Total Arrivals	96	100%	89	100%	95	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	3%	3%	7%
Depts. 2015 vs 2013	-2%	-3%	10%
Arrivals 2015 vs 2014	8%	6%	38%
Arrivals 2015 vs 2013	0%	-1%	20%

** 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 - April 2015

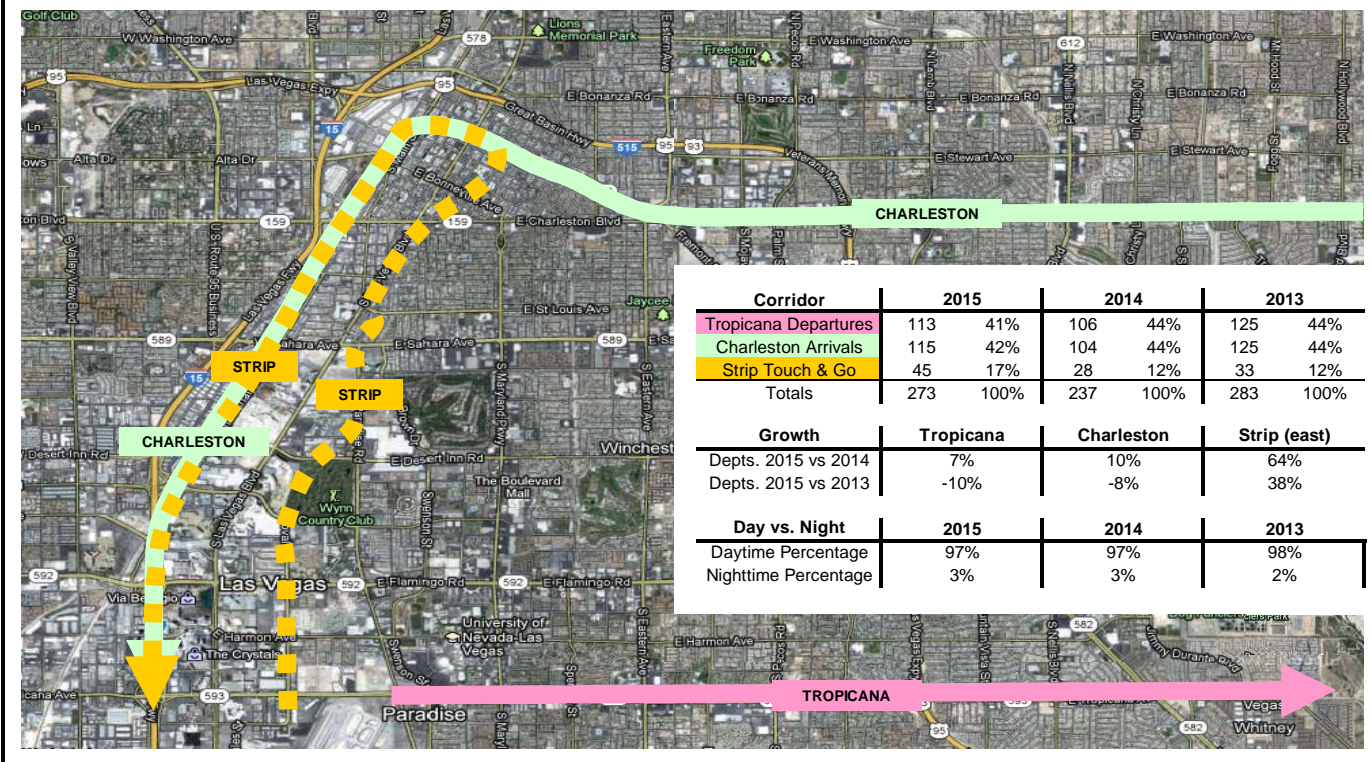
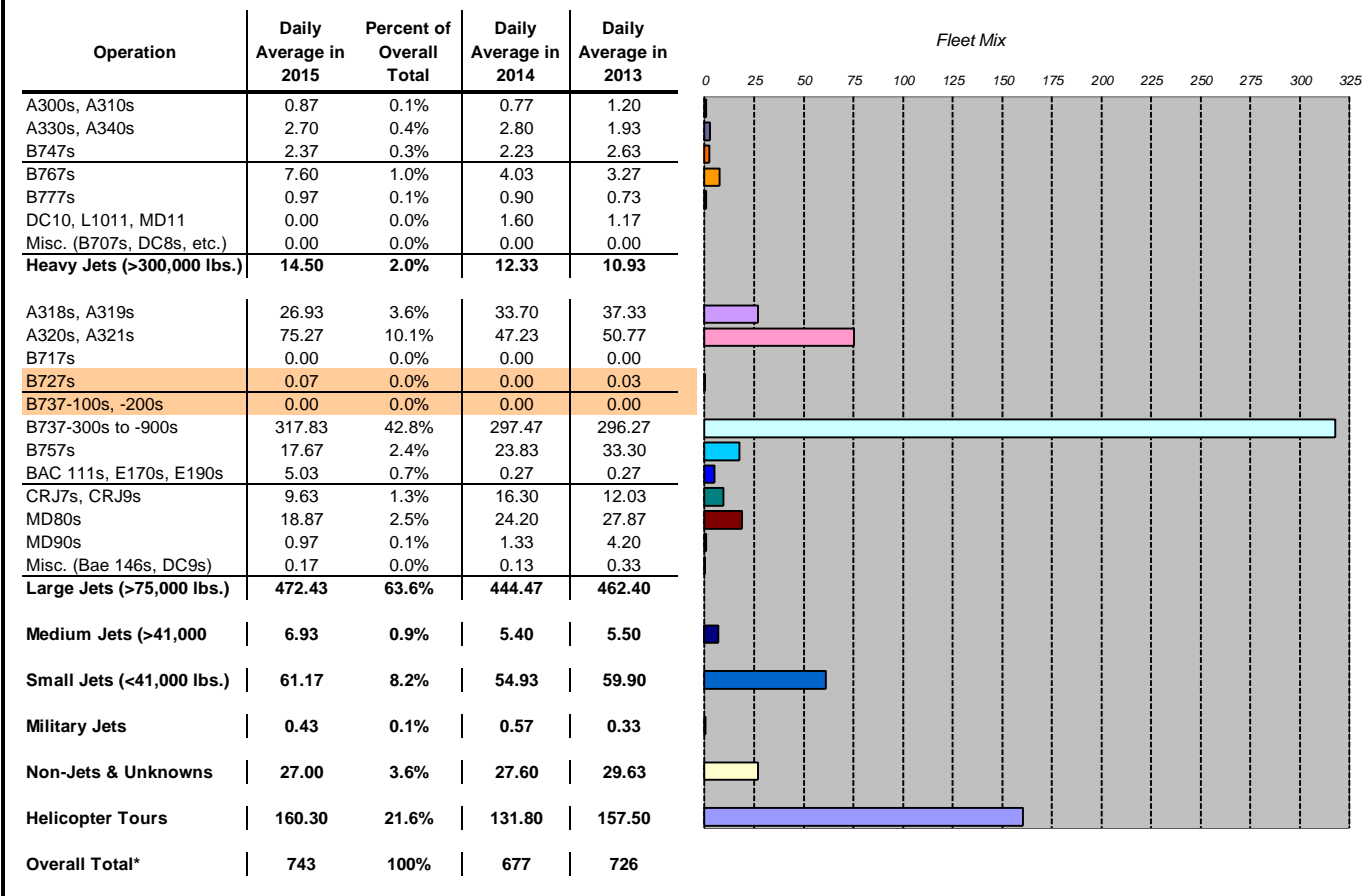


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - April 2015



* 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 2015 to 2013

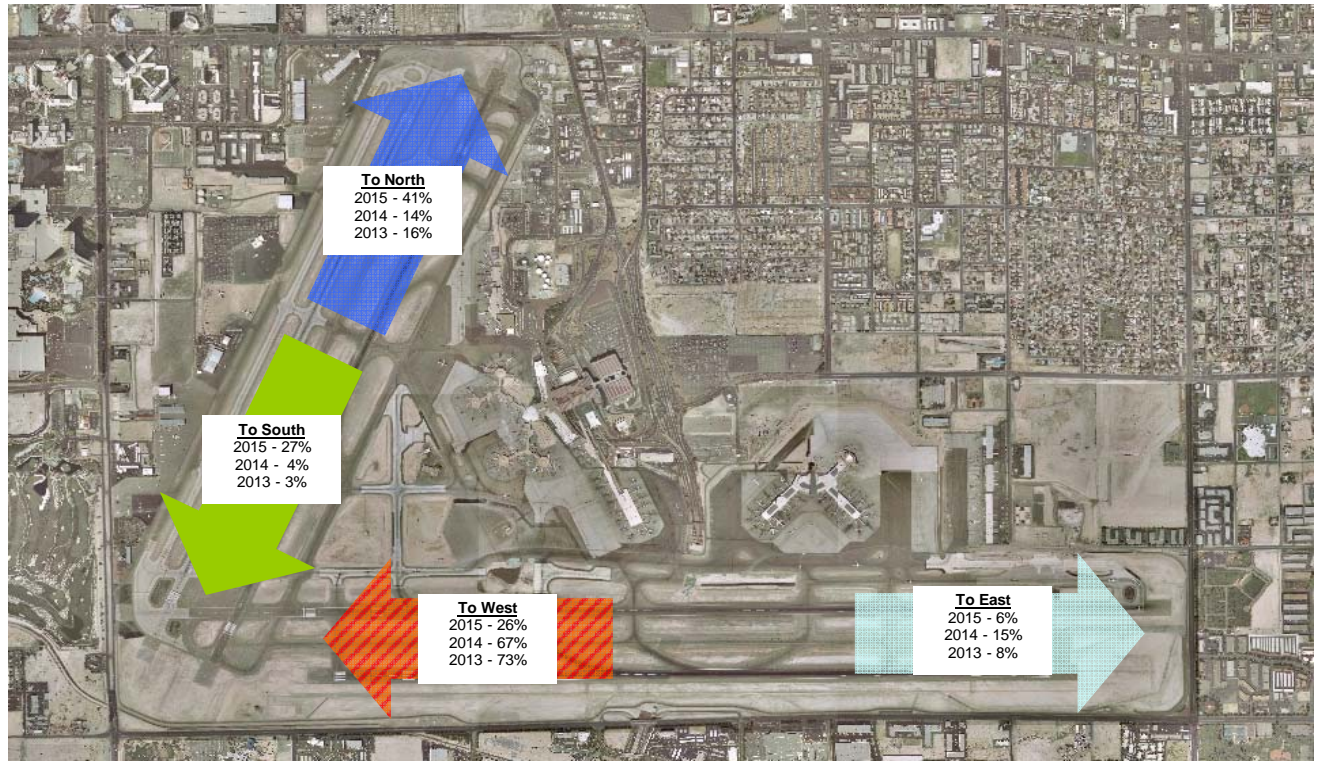
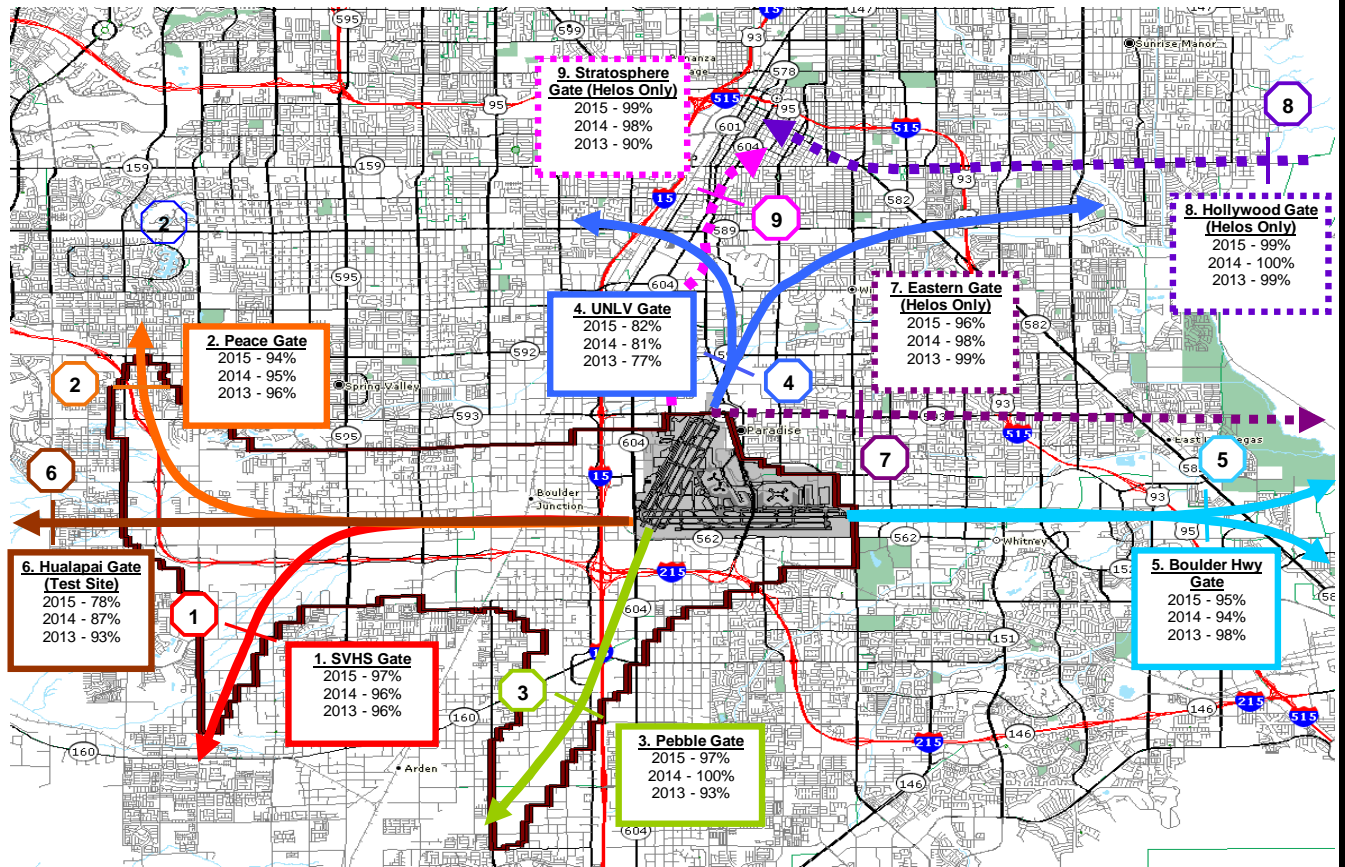


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - April 2015



* 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, A370, 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 2015

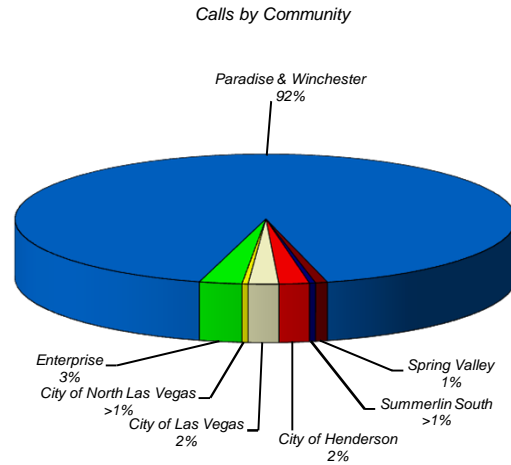
Community	No. of Calls in 2015	No. of Callers in 2015	No. of Calls in 2014	No. of Calls in 2013
City of Boulder City	5	2	6	3
City of Henderson	5	5	4	3
City of Las Vegas	1	1		
City of North Las Vegas	7	5	7	3
Enterprise				
Lone Mountain				
Paradise & Winchester	235	10	432	6
Spring Valley	2	2	4	4
Summerlin South	1	1		
Sunrise Manor				11
Whitney				
Location unknown				
Overall Total	256	26	453	30

Difference between 2015 and 2014 Total Calls: -43%

Difference between 2015 and 2013 Total Calls: 753%

Average Number of Calls per Caller: 9.8

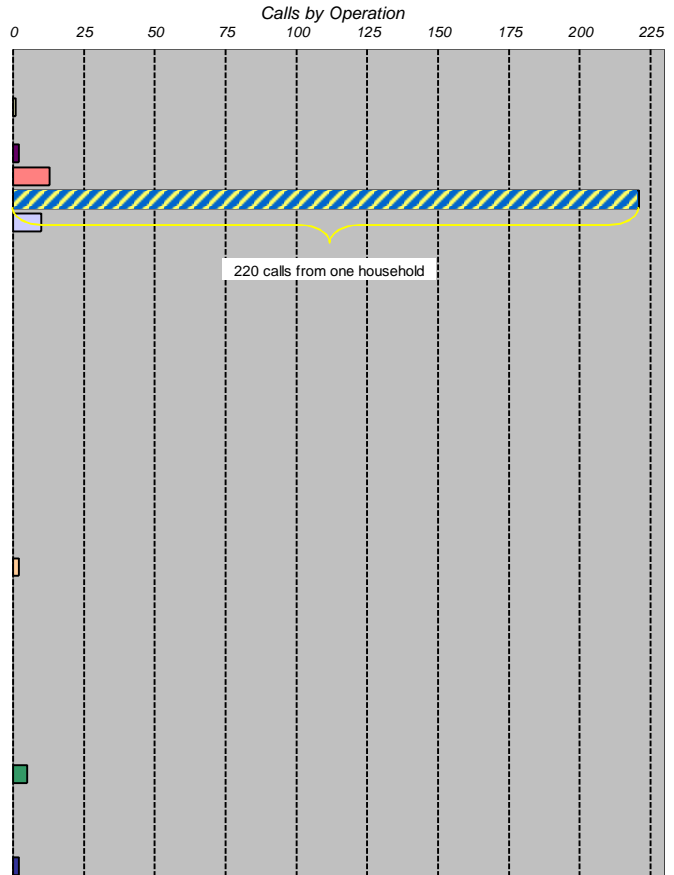
Most calls received from one household: 221



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

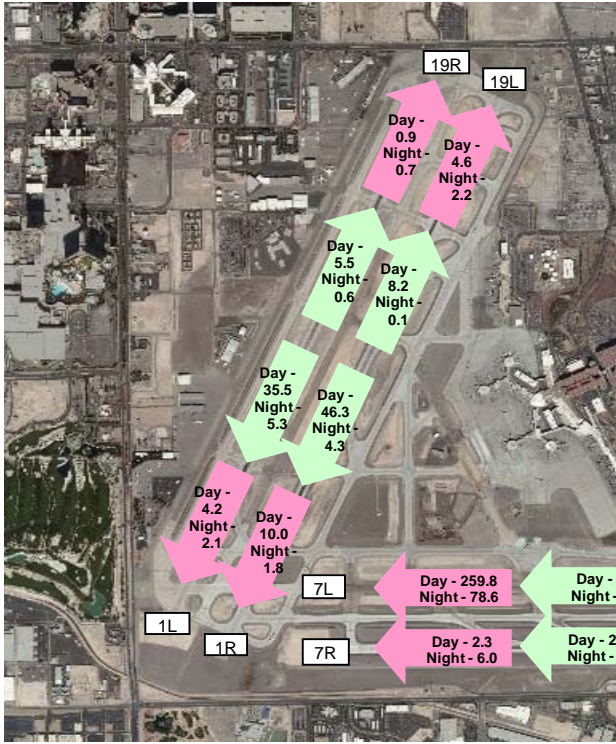
Exhibit 2: Noise Complaint Calls by Type of Operation - May 2015

Operation	No. of Calls in 2015	Percent of Overall Total	No. of Calls in 2014	No. of Calls in 2013
LAS 01R/L Arrivals			3	
LAS 07R/L Arrivals				
LAS 19R/L Arrivals	1	0.4%	1	
LAS 25R/L Arrivals				
LAS 01R/L Departures	2	0.8%	169	6
LAS 07R/L Departures	13	5.1%	8	1
LAS 19R/L Departures	221	86.3%	37	
LAS 25R/L Departures	10	3.9%	227	6
LAS Run-ups		0.0%	1	1
LAS GA				
LAS Other				
LAS Total	247	96.5%	446	14
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	2	0.8%	1	
VGT Other				
VGT Total	2	0.8%	1	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	5	2.0%	5	
HND Other				
HND Total	5	2.0%	5	0
Helicopters**	2	0.8%	1	16
Overall Total	256	100%	453	30



** 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 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - May 2015



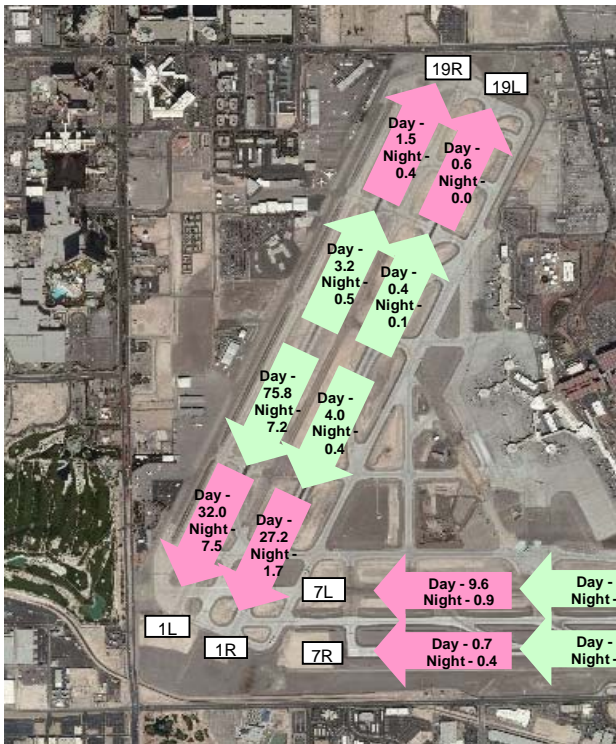
Year	2015		2014		2013	
Daytime Departures	356	79%	365	83%	348	82%
Nighttime Departures	93	21%	76	17%	78	18%
Total Departures	449	100%	441	100%	426	100%

Daytime Arrivals	416	85%	425	88%	419	88%
Nighttime Arrivals	75	15%	56	12%	58	12%
Total Arrivals	492	100%	481	100%	477	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	2%	-2%	23%
Depts. 2015 vs 2013	5%	2%	19%
Arrivals 2015 vs 2014	2%	-2%	34%
Arrivals 2015 vs 2013	3%	-1%	30%

* 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 2015



Year	2015		2014		2013	
Daytime Departures	89	89%	81	88%	77	88%
Nighttime Departures	11	11%	11	12%	10	12%
Total Departures	100	100%	91	100%	88	100%

Daytime Arrivals	100	92%	93	93%	95	94%
Nighttime Arrivals	9	8%	8	7%	6	6%
Total Arrivals	109	100%	100	100%	101	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	9%	10%	5%
Depts. 2015 vs 2013	14%	15%	7%
Arrivals 2015 vs 2014	8%	8%	15%
Arrivals 2015 vs 2013	8%	6%	34%

** 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 2015

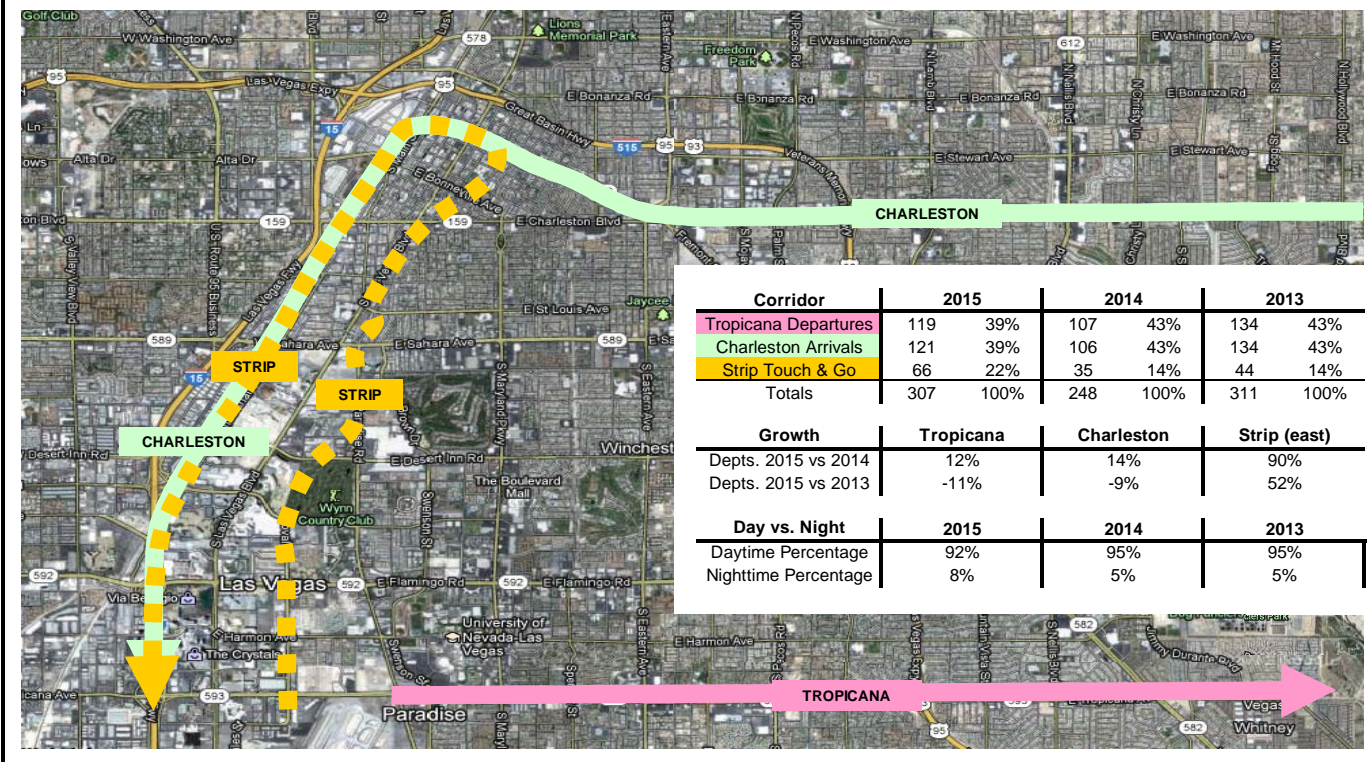
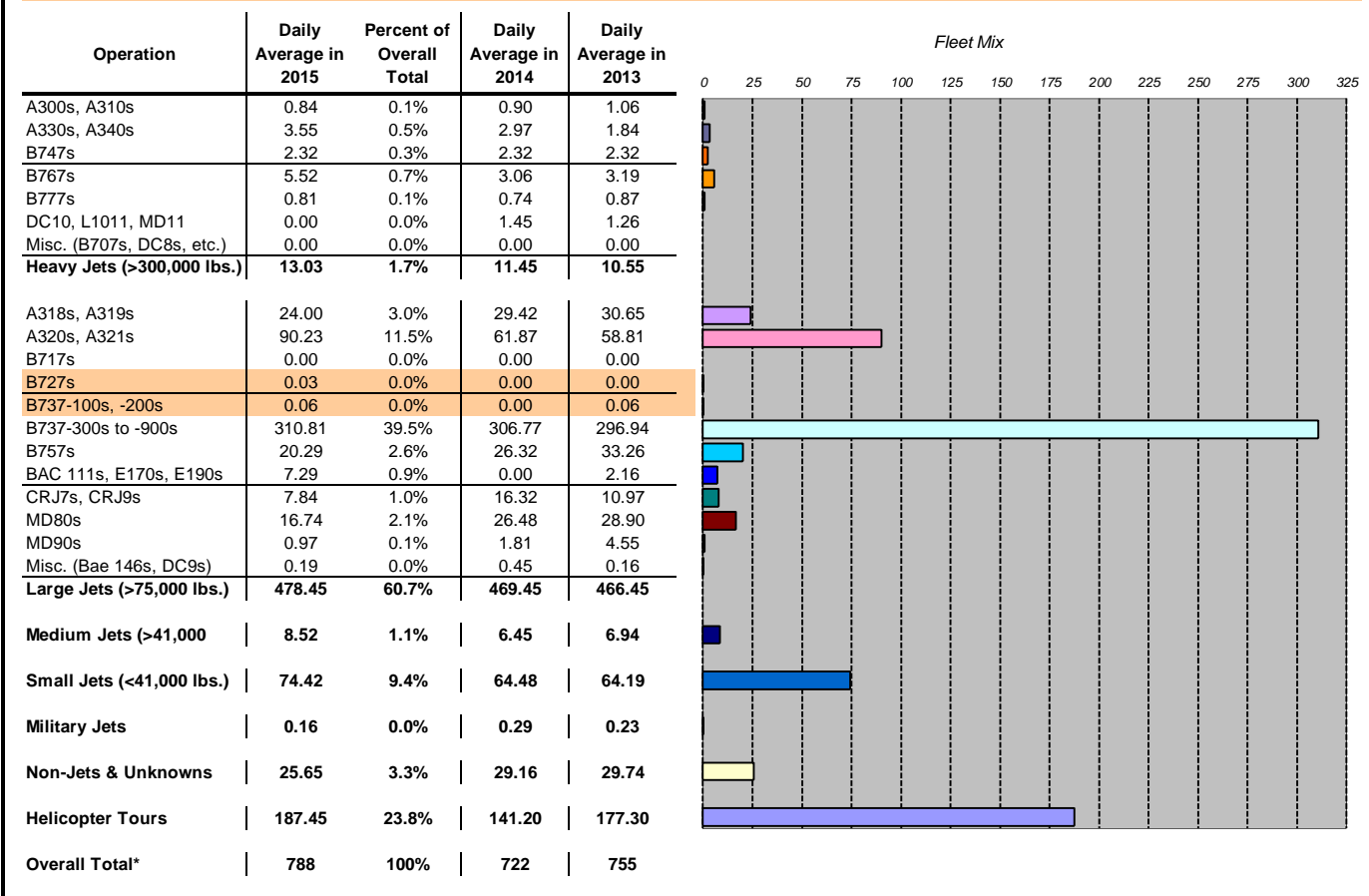


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - May 2015



* 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 2015 to 2013

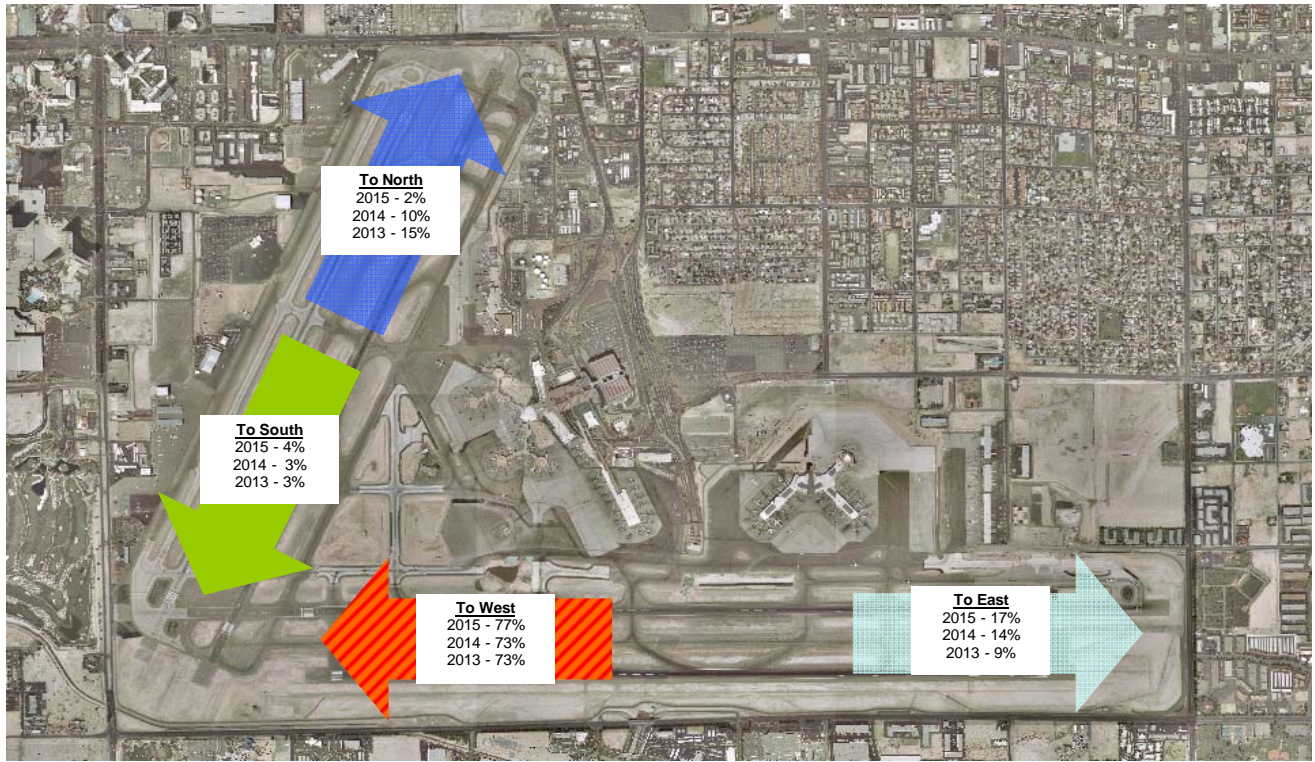
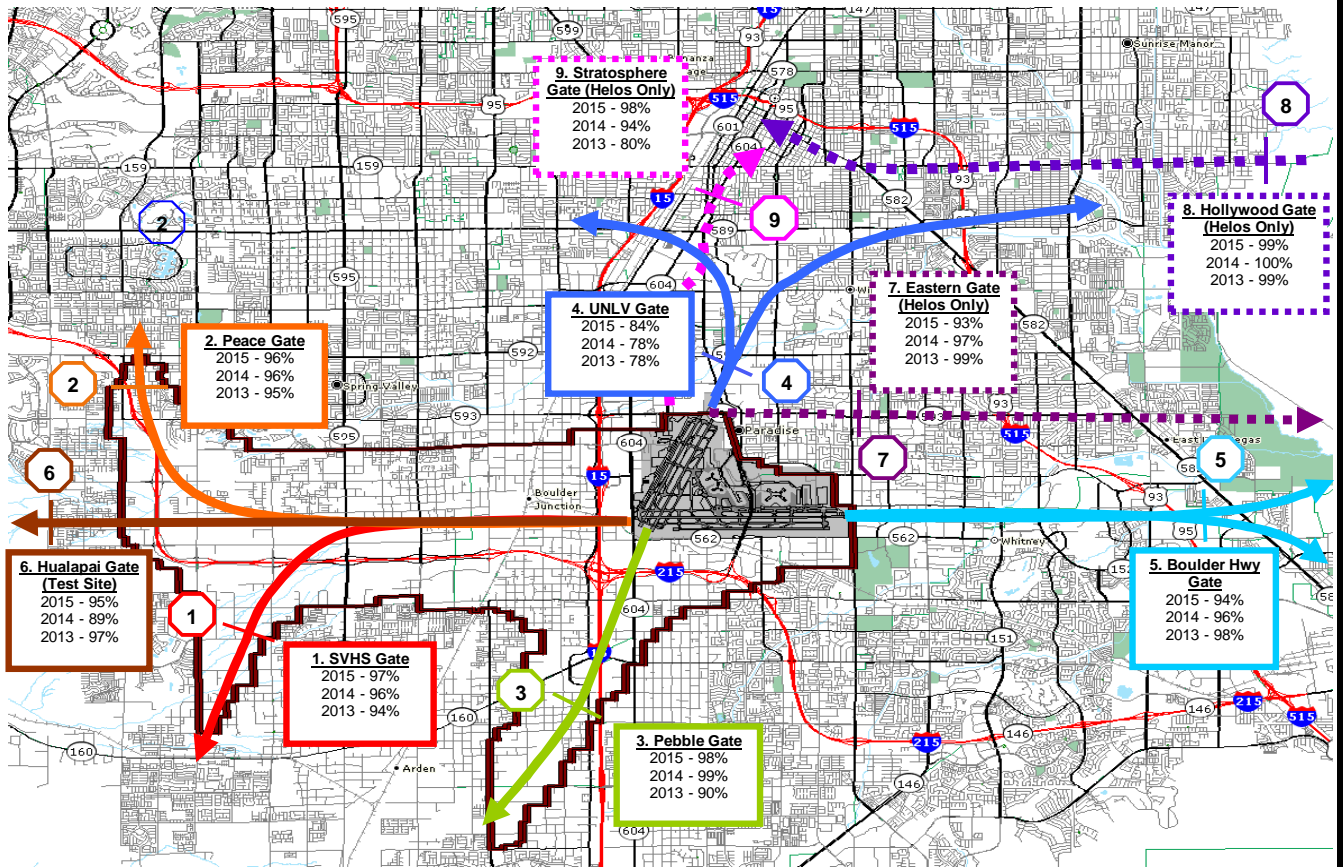


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - May 2015



* 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, A370, 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 2015

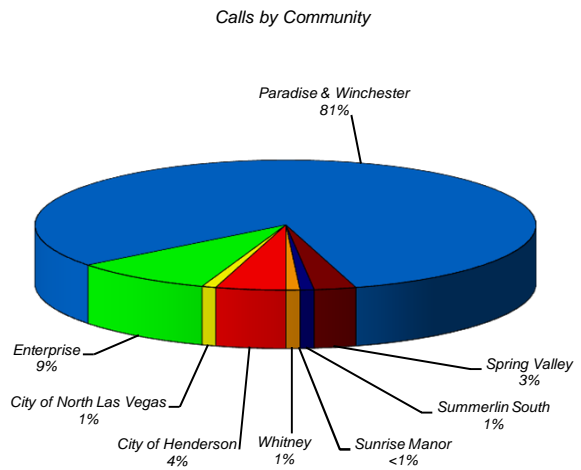
Community	No. of Calls in 2015	No. of Callers in 2015	No. of Calls in 2014	No. of Calls in 2013
City of Boulder City	5	2		2
City of Henderson				1
City of Las Vegas	1	1		
City of North Las Vegas			1	
Enterprise	10	2		
Lone Mountain				
Paradise & Winchester	90	7	142	
Spring Valley	3	3	2	2
Summerlin South	1	1		
Sunrise Manor			1	2
Whitney	1	1		
Location unknown				
Overall Total	111	17	146	7

Difference between 2015 and 2014 Total Calls: -24%

Difference between 2015 and 2013 Total Calls: 1,486%

Average Number of Calls per Caller: 6.5

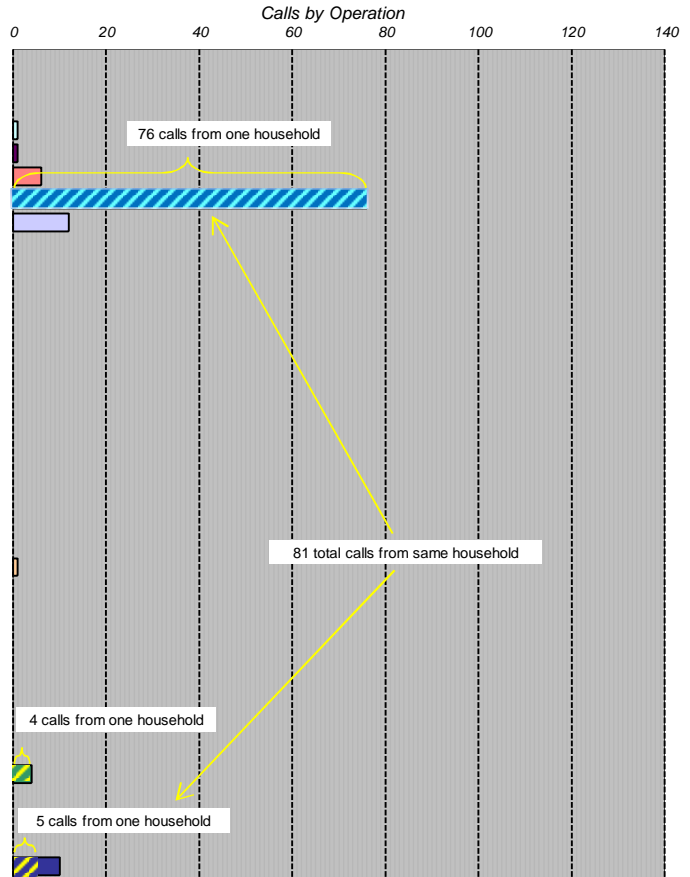
Most calls received from one household: 81



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

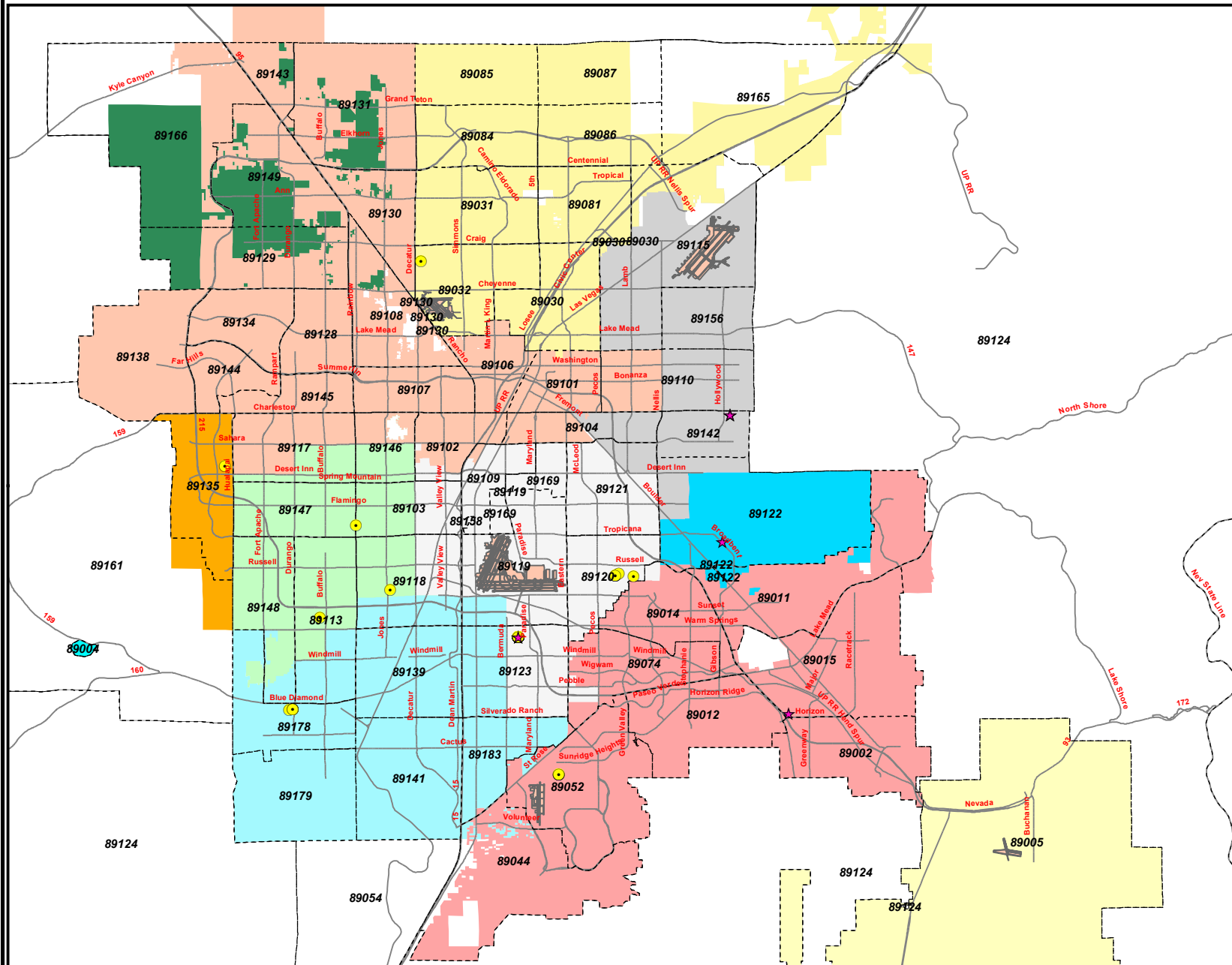
Exhibit 2: Noise Complaint Calls by Type of Operation - June 2015

Operation	No. of Calls in 2015	Percent of Overall Total	No. of Calls in 2014	No. of Calls in 2013
LAS 01R/L Arrivals				
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	1	0.9%		
LAS 01R/L Departures	1	0.9%	1	1
LAS 07R/L Departures	6	5.4%		
LAS 19R/L Departures	76	68.5%		
LAS 25R/L Departures	12	10.8%	135	2
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	96	86.5%	136	3
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	0.9%		
VGT Other				
VGT Total	1	0.9%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	4	3.6%		1
HND Other				
HND Total	4	3.6%	0	1
Helicopters**	10	9.0%	10	3
Overall Total	111	100%	146	7



** 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 2015



Legend

June 2015
Total Complaints: 111

- Aircraft Complaints Received 101 Mapped 101
- ★ Helicopter Complaints Received 10 Mapped 10
- 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

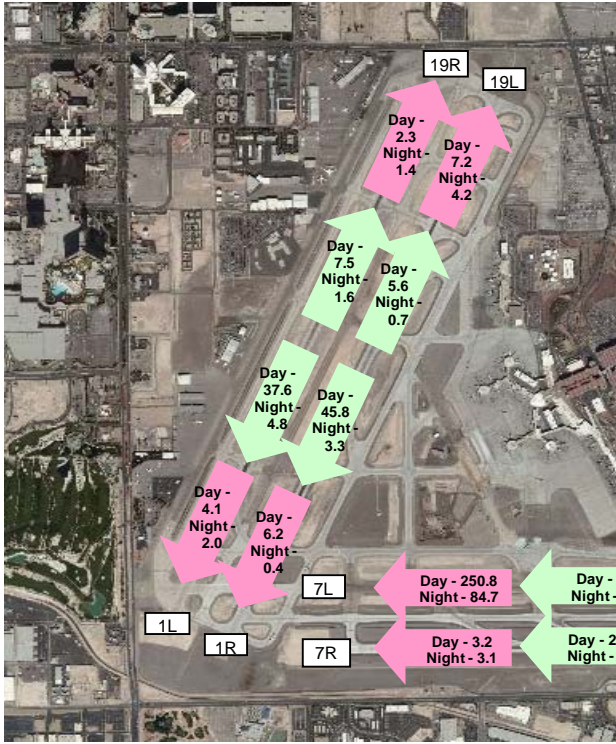
Geographic Information Systems

July 16, 2015

Note: This information is for display purposes only. No liability is assumed as to the accuracy of the data delineated hereon.

H:\GIS\Standard Projects\Noise\2015\02_2015

Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - June 2015

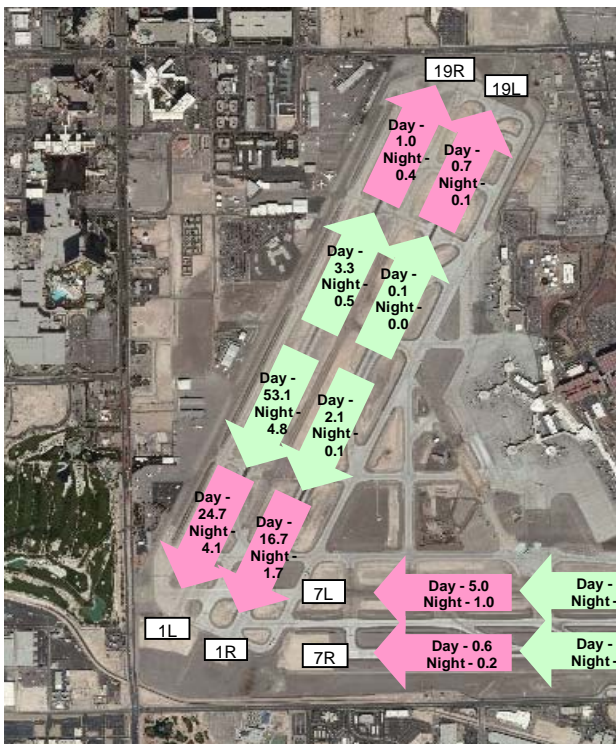


Year	2015		2014		2013	
Daytime Departures	350	78%	361	82%	346	80%
Nighttime Departures	98	22%	80	18%	85	20%
Total Departures	448	100%	441	100%	431	100%
Daytime Arrivals	416	84%	424	87%	407	86%
Nighttime Arrivals	82	16%	63	13%	67	14%
Total Arrivals	498	100%	487	100%	474	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	1%	-3%	22%
Depts. 2015 vs 2013	4%	1%	15%
Arrivals 2015 vs 2014	2%	-2%	30%
Arrivals 2015 vs 2013	5%	2%	22%

* 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 2015



Year	2015		2014		2013	
Daytime Departures	62	89%	66	88%	60	87%
Nighttime Departures	8	11%	9	12%	9	13%
Total Departures	69	100%	75	100%	69	100%
Daytime Arrivals	70	92%	77	93%	70	92%
Nighttime Arrivals	6	8%	6	7%	6	8%
Total Arrivals	75	100%	83	100%	76	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-7%	-7%	-9%
Depts. 2015 vs 2013	1%	3%	-10%
Arrivals 2015 vs 2014	-9%	-10%	-2%
Arrivals 2015 vs 2013	-1%	-1%	-6%

** 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 2015

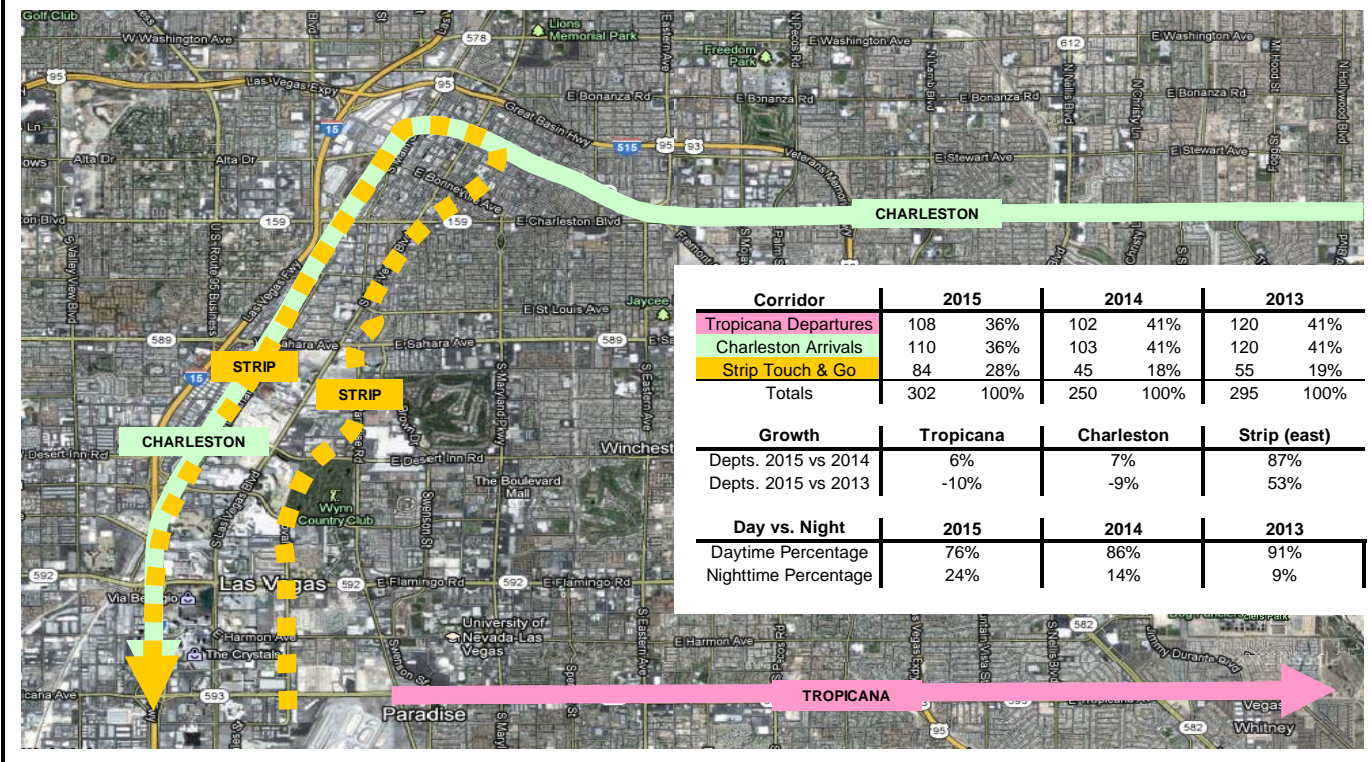
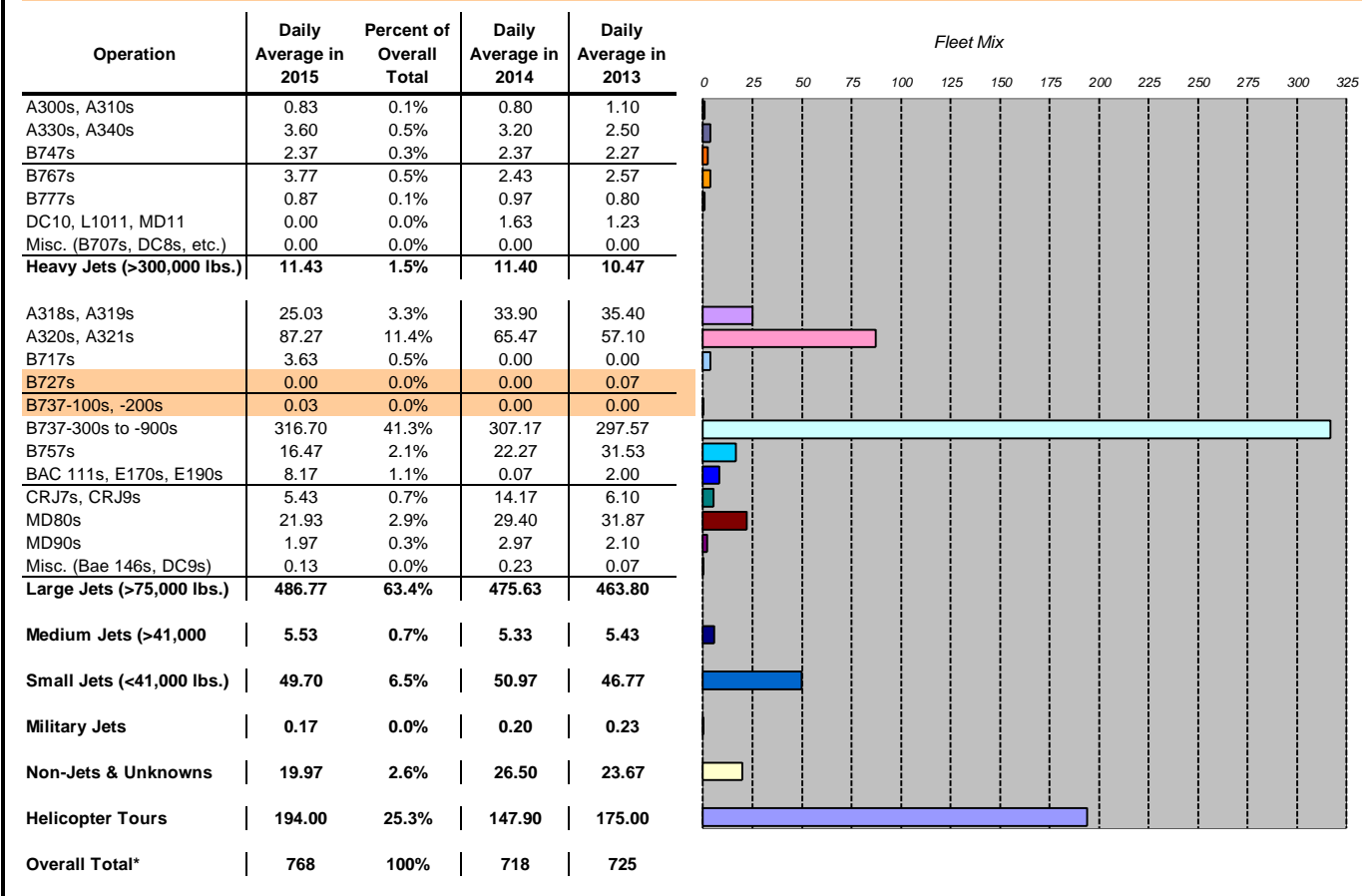


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - June 2015



* 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 2015 to 2013

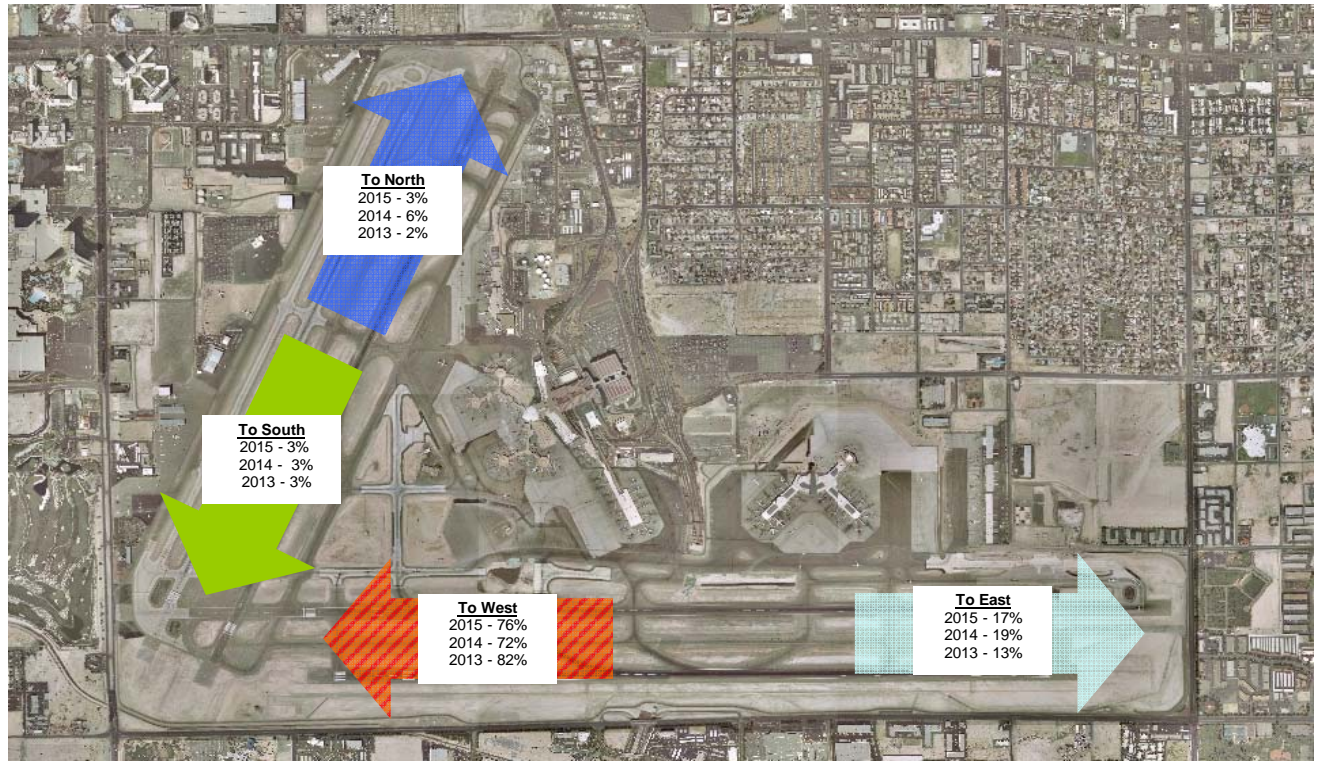
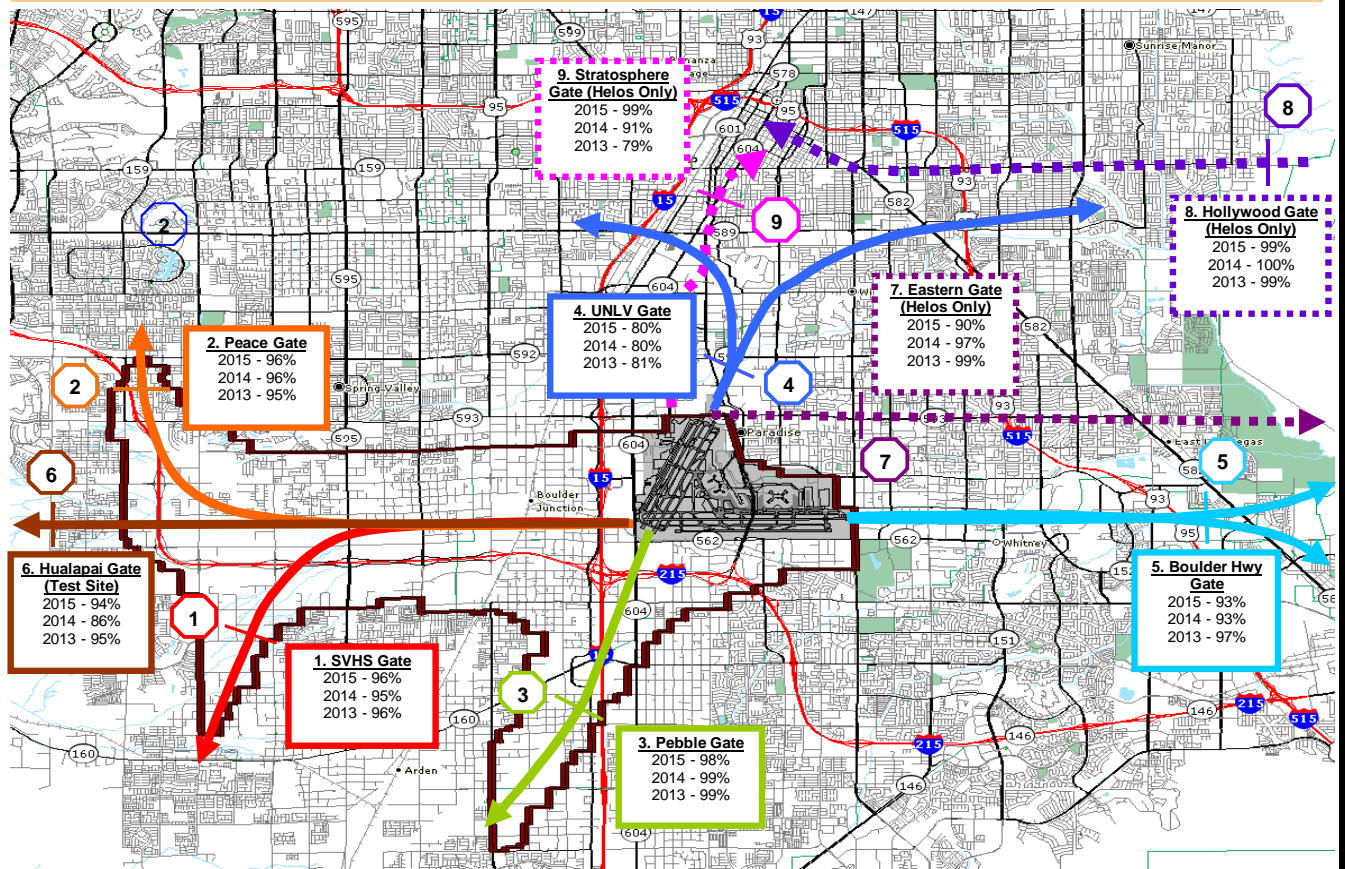


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - June 2015



* 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, A370, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.