

MEMORANDUM

DEPARTMENT OF AVIATION

TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER

SUBJECT: JANUARY THROUGH MARCH 2014 NOISE COMPLAINT REPORTS

DATE: APRIL 11, 2014

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for January through March 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, or the private helipad located near Cheyenne Road and North 5th Street) are asked to contact the individual property owner directly.

Exhibit 1 of each Monthly Noise Complaint Report illustrates the number of calls received by community as well as the number of individual callers or households. **Exhibit 2** illustrates the primary nature of the disturbance as identified by the caller. The second page of each monthly report (**Exhibit 3**) graphically illustrates all known origins of the calls received that month. **Exhibits 4 and 5** summarize arrival and departure runway use for large and non-large air carrier aircraft. 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 (non-large air carrier aircraft types were added to the 2012 monthly reports). **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

January 2014: 254 total complaints - a 323% increase from 2013 and a 520% increase from 2012. On average, each caller (or household) issued 15.9 calls. The most calls received from one household totaled 213.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 235 calls (93%). These communities are typically impacted by aircraft departing to the north (from Runway 01R and Runway 01L).

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

Repeat Caller Impact: Two households issued 90% (229 calls) of all the calls received in January 2014.

Calls by Operation - (Exhibit 2)

LAS: 92% of the total calls were due to *LAS* fixed-wing operations.

- 47% were due to departures to the west from Runways 25L and 25R (85% from one household).
- 45% were due to departures to the north from Runways 01L and 01R (98% from one household, which is the same household that issued 85% of the calls for Runways 25L and 25R).

VGT: 1% 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: 6% of the total calls were due to *helicopter* operations (100% from one household).

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

Overall: 387 daily *departures*¹ – a 3% increase from 2013 and 9% decrease from 2012.

- 74% of departures were to the west, 21% north, 4% south, and 1% east.

441 daily *arrivals* – a 3% increase from 2013 and 1% increase from 2012.

- 85% of arrivals were from the east, 10% from the south, and 5% north.

Daytime: 333 daily *departures*² – a 1% increase from 2013 and an 11% decrease from 2012.

- 72% of departures were to the west, 23% north, 4% south, and 1% east.

395 daily *arrivals* – a 2% increase from 2013 and a 1% increase from 2012.

- 84% of arrivals were from the east, 11% from the south, and 5% north.

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:** 54 daily *departures*³ – a 10% increase from 2013 and a 2% increase from 2012.
- 90% of departures were to the west, 5% north, and 5% south.
- 45 daily *arrivals* – a 13% increase from 2013 and a 2% increase from 2012.
- 88% of arrivals were from the east, 10% from the north, and 2% south.

Daytime vs. Nighttime: Approximately 86% of all *departures* and 90% of all *arrivals* occurred during the daytime hours.

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

- Overall:** 92 daily *departures*⁴ – an 8% increase from 2013 and 12% decrease from 2012.
- 60% of departures were to the south, 21% north, and 18% west.
- 107 daily *arrivals* – a 6% increase from 2013 and 2% decrease from 2012.
- 62% of arrivals were from the north, 19% from the south, and 18% east.

- Daytime:** 83 daily *departures*⁵ – a 4% increase from 2013 and a 15% decrease from 2012.
- 57% of departures were to the south, 23% north, and 19% west.
- 100 daily *arrivals* – a 6% increase from 2013 and a 3% decrease from 2012.
- 61% of arrivals were from the north, 20% south, and 19% east.

- Nighttime:** 10 daily *departures*⁶ – a 44% increase from 2013 and a 36% increase from 2012.
- 83% of departures were to the south, 12% west, and 4% north.
- 7 daily *arrivals* – a 17% increase from 2013 and a 13% increase from 2012.
- 82% of arrivals were from the north, 13% south, and 5% east.

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: 88 daily *departures* - a 5% increase from 2013 and a 7% increase from 2012.

Charleston: 88 daily *arrivals* - a 5% increase from 2013 and a 8% increase from 2012.

Strip: 26 daily *touch and go's* - an 8% increase from 2013 and a 14% decrease from 2012.

Daytime vs. Nighttime: Approximately 98% 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.

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 11% of the daily traffic.

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

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

Helos: *Touring helicopters* accounted for 17% of the daily traffic.

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

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

Primary: In 2014, 74% departed to the *west* (from LAS's primary departure runways). This figure was 72% in 2013 and 69% in 2012.

Secondary: In 2014, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2013 and 12% in 2012.

Alternate 1: In 2014, 21% departed to the *north* (from LAS's alternate departure runways). This figure was 25% in 2013 and 17% in 2012.

Alternate 2: In 2014, 1% departed to the *east* (from LAS's alternate departure runways). This figure was 1% in 2013 and 2% 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 95% in 2013 and 93% 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, 98% 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 98% in 2013 and 97% 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 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 95% in 2013 and 98% 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 79% 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, 84% 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 2013 and 94% 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, 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 92% in 2013 and 97% 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, 91% 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 99% 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, 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 99% in 2013 and 98% 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 94% in 2013 and 89% 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 the number of complaints tied to a single household.

February 2013: 862 total complaints - a 3,093% increase from 2013 and a 1,097% increase from 2012. On average, each caller (or household) issued 41.0 calls. The most calls received from one household totaled 837.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 844 calls (98%). (See January 2014 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 97% (837 calls) of all the calls received in February 2014.

Calls by Operation - (Exhibit 2)

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

- 43% were due to departures to the north from Runways 01L and 01R (98% from one household).
- 56% were due to departures to the west from Runways 25L and 25R (99% 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: 392 daily *departures*⁷ – a 1% increase from 2013 and 6% decrease from 2012.

- 71% of departures were to the west, 20% north, 6% east, and 3% south.

442 daily *arrivals* – a 2% increase from 2013 and 1% decrease from 2012.

- 80% of arrivals were from the east, 14% from the south, and 6% from the north.

Daytime: 335 daily *departures*⁸ – a 2% increase from 2013 and 8% decrease from 2012.

- 69% of departures were to the west, 21% north, 7% east, and 2% south.

393 daily *arrivals* – a 1% increase from 2013 and a 1% decrease from 2012.

- 79% of arrivals were from the east, 15% from the south, and 5% from the north.

Nighttime: 57 daily *departures*⁹ – a 2% decrease from 2013 and 4% increase from 2012.

- 83% of departures were to the west, 10% north, 5% south, and 2% east.

50 daily *arrivals* – a 7% increase from 2013 and no change from 2012.

- 85% of arrivals were from the east, 10% from the north, and 5% from the south.

Daytime vs. Nighttime: Approximately 86% of all *departures* and 89% 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:** 89 daily *departures*¹⁰ – a 10% increase from 2013 and 6% decrease from 2012.
▪ 53% of departures were to the south, 22% north, 19% west, and 6% east.
100 daily *arrivals* – a 5% increase from 2013 and 9% decrease from 2012.
▪ 56% of arrivals were from the north, 24% south, 19% east, and 1% west.
- Daytime:** 81 daily *departures*¹¹ – a 9% increase from 2013 and an 8% decrease from 2012.
▪ 51% of departures were to the south, 23% north, 19% west, and 7% east.
93 daily *arrivals* – a 6% increase from 2013 and a 10% decrease from 2012.
▪ 54% of arrivals were from the north, 25% south, 20% east, and 1% west.
- Nighttime:** 8 daily *departures*¹² – a 24% increase from 2013 and an 8% increase from 2012.
▪ 70% of departures were to the south, 16% west, 13% north, and 1% east.
7 daily *arrivals* – an 8% decrease from 2013 and a 5% increase from 2012.
▪ 77% of arrivals were from the north, 16% south, and 6% east.

Daytime vs. Nighttime: Approximately 91% of all *departures* and 93% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 84 daily *departures* – a 4% decrease from 2013 and a 7% increase from 2012.

Charleston: 84 daily *arrivals* - a 3% decrease from 2013 and a 7% increase from 2012.

Strip: 30 daily *touch and go's* - a 13% increase from 2013 and an 8% decrease from 2012.

Daytime vs. Nighttime: Approximately 98% 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 10% of the daily traffic.
- Military:** **Military** turbine-driven aircraft accounted for less than 1% of the daily traffic.
- Non-Jet:** **Piston-driven** aircraft and unassigned aircraft types accounted for 4% of the daily traffic.

¹⁰ See footnote #1.

¹¹ See footnote #1.

¹² See footnote #1.

Helos: *Touring helicopters* accounted for 17% of the daily traffic.

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

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

Primary: In 2014, 71% departed to the *west* (from LAS's primary departure runways). This figure was 64% in 2013 and 62% in 2012.

Secondary: In 2014, 3% departed to the *south* (from LAS's secondary departure runways). This figure was 2% in 2013 and 12% in 2012.

Alternate 1: In 2014, 20% departed to the *north* (from LAS's alternate departure runways). This figure was 22% in 2013 and 21% in 2012.

Alternate 2: In 2014, 6% departed to the *east* (from LAS's alternate departure runways). This figure was 12% in 2013 and 6% 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 95% in 2013 and 93% in 2012. (See January 2014 synopsis for specific location of the SVHS gate.)

Peace: In 2014, 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 right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 98% in 2013 and 97% in 2012. (See January 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 96% in 2013 and 97% in 2012. (See January 2014 synopsis for specific location of the Pebble gate.)

UNLV: In 2014, 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 2013 and 80% in 2012. (See January 2014 synopsis for specific location of the UNLV gate.)

Boulder: In 2014, 95% 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 99% in 2013 and 96% in 2012. (See January 2014 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2014, 93% 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 98% in 2013 and 93% in 2012. (See January 2014 synopsis for specific location of the Hualapai gate.)

Eastern: In 2014, 89% 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 January 2014 synopsis for specific location of the Eastern gate.)

Hollywood: In 2014, 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 99% in 2013 and 98% in 2012. (See January 2014 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2014, 95% 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 2013 and 87% in 2012. (See January 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 the number of complaints tied to a single household.

March 2013: 864 total complaints - a 2,007% increase from 2013 and a 1,957% increase from 2012. On average, each caller (or household) issued 41.1 calls. The most calls received from one household totaled 823.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 828 calls (96%). (See January 2013 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 95% (823 calls) of all the calls received in March 2014.

Calls by Operation - (Exhibit 2)

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

- 70% were due to departures to the north from Runways 01L and 01R (97% from one household).
- 29% were due to departures to the west from Runways 25L and 25R (95% from one household, which is the same household that issued 97% of the calls for Runways 25L and 25R).

VGT: 0% 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** - (Exhibits 4)

- Overall:** 422 daily *departures*¹³ – a 1% increase from 2013 and a 7% decrease from 2012.
▪ 64% of departures were to the west, 23% north, 11% east, and 2% south.
474 daily *arrivals* – a 2% increase from 2013 and 1% decrease from 2012.
▪ 74% of arrivals were from the east, 20% south, and 6% north.
- Daytime:** 348 daily *departures*¹⁴ – a 1% increase from 2013 and 9% decrease from 2012.
▪ 60% of departures were to the west, 25% north, 13% east, and 2% south.
412 daily *arrivals* – a 1% increase from 2013 and 1% decrease from 2012.
▪ 72% of arrivals were from the east, 22% south, and 5% north.
- Nighttime:** 74 daily *departures*¹⁵ – no change from 2013 and a 5% increase from 2012.
▪ 81% of departures were to the west, 13% north, 4% east and 3% south.
62 daily *arrivals* – a 9% increase from 2013 and 2% decrease from 2012.
▪ 83% of arrivals were from the east, 10% north, and 7% south.

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

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

- Overall:** 92 daily *departures*¹⁶ – a 14% increase from 2013 and a 10% increase from 2012.
▪ 45% of departures were to the south, 31% north, 14% west, and 9% east.
105 daily *arrivals* – a 12% increase from 2013 and a 7% increase from 2012.
▪ 51% of arrivals were from the north, 31% south, 17% east, and 1% west.
- Daytime:** 82 daily *departures*¹⁷ – a 13% increase from 2013 and a 9% increase from 2012.
▪ 42% of departures were to the south, 33% north, 14% west, and 10% east.
98 daily *arrivals* – a 13% increase from 2013 and a 7% increase from 2012.
▪ 49% of arrivals were from the north, 31% south, 18% east, and 1% west.
- Nighttime:** 10 daily *departures*¹⁸ – a 22% increase from 2013 and a 25% increase from 2012.
▪ 70% of departures were to the south, 15% north, 11% west, and 3% east.
6 daily *arrivals* – an 8% increase from 2013 and a 7% increase from 2012.
▪ 73% of arrivals were from the north, 22% south, and 6% east.

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

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

- Tropicana:** 93 daily *departures* – a 13% decrease from 2013 and a 4% decrease from 2012.
- Charleston:** 92 daily *arrivals* - a 12% decrease from 2013 and a 3% decrease from 2012.

¹³ See footnote #1.

¹⁴ See footnote #1.

¹⁵ See footnote #1.

¹⁶ See footnote #1.

¹⁷ See footnote #1.

¹⁸ See footnote #1.

Strip: 26 daily *touch and go's* - a 23% decrease from 2013 and a 32% decrease from 2012.

Daytime vs. Nighttime: Approximately 98% 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 10% of the daily traffic.

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

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

Helos: *Touring helicopters* accounted for 17% of the daily traffic.

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

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

Primary: In 2014, 64% departed to the *west* (from LAS's primary departure runways). This figure was 76% in 2013 and 68% in 2012.

Secondary: In 2014, 2% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2013 and 15% in 2012.

Alternate 1: In 2014, 23% departed to the *north* (from LAS's alternate departure runways). This figure was 12% in 2013 and 9% in 2012.

Alternate 2: In 2014, 11% departed to the *east* (from LAS's alternate departure runways). This figure was 9% in 2013 and 7% 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 95% in 2013 and 94% in 2012. (See January 2014 synopsis for specific location of the SVHS gate.)

- Peace:** In 2014, 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 right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 97% in 2013 and 95% in 2012. (See January 2014 synopsis for specific location of the Peace gate.)
- Pebble:** In 2014, 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 97% in 2013 and 98% in 2012. (See January 2014 synopsis for specific location of the Pebble gate.)
- 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 84% in 2013 and 77% in 2012. (See January 2014 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2014, 98% 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 95% in 2012. (See January 2014 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2014, 92% 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 January 2014 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2014, 99% 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 January 2014 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2014, 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 99% in 2013 and 98% in 2012. (See January 2014 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2014, 88% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 85% in 2013 and 83% in 2012. (See January 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 the number of complaints tied to a single household, and the frequency of northbound departures.

Other Notable Issues

Site Visit: On March 6, 2014, A DOA staff member conducted a visit of a community where residential noise complaints have dramatically increased. The staff member attempted to ascertain any noteworthy changes tied to typical noise levels in and around this community. Based on the observations made, as well as a comprehensive review of historical noise levels documented in the latest LAS FAR Part 150 Noise Study, no evidence was found to explain the cause of increased noise complaints from this single

household. DOA staff members have communicated with the resident in question, and have extended several offers to meet and discuss the issue in greater detail.

Helicopter Operator Users Meeting: On March 20, 2013, CCDOA met with FAA, local helicopter tour operators, and Las Vegas Metropolitan Police to discuss noise complaints tied to helicopter operations, route compliance, and operational growth. Attendees also discussed the implementation of an updated Letter of Agreement (LOA), between the FAA and tour operators. The new LOA outlines recent modifications and improvements to tour routes and altitudes. Attendees also discussed the successful use of the modified route to accommodate helicopter flights to and from the Las Vegas Motor Speedway, for an annual NASCAR racing event. Helicopters maintained a high rate of route compliance resulting in zero noise complaints tied to this route for the event.

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

April 11, 2014

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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

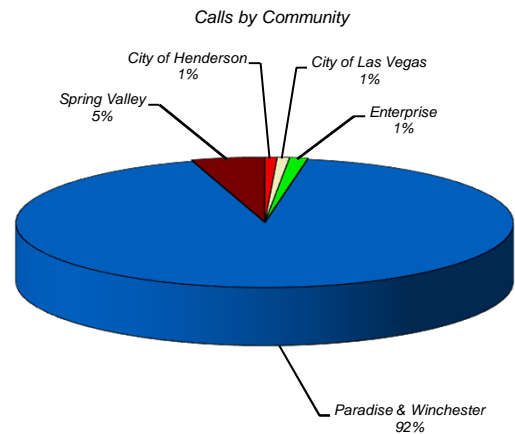
Commissioner Brown, Vice-Chair
Commissioner Giunchigliani
Commissioner Scow
Rosemary Vassiliadis
Harry Waters
Brian McMahon
E. Lee Thomson
Chris Jones
Barbara Bolton
Jeff Jacquart
Charlie Hall
Ben Czyzewski
Dennis Anderson
Tom Peterson
Mark Silverstein
Brenda Bell

Stephen J. Lloyd (FAA TRACON)
Jim Burgan (FAA ATC)
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)
Raymond Chiang (FAA)
Stephanie Garcia-Vause (COH)
Andrew Powell (COH)
William Ruggiero (FAA TRACON)

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

Exhibit 1: Noise Complaint Calls by Community* - January 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	2	18	9
City of Henderson	2	2	3	4
City of Las Vegas	2	2	3	4
City of North Las Vegas				
Enterprise	3	3	3	1
Lone Mountain			1	1
Paradise & Winchester	235	7	8	7
Spring Valley	12	2	10	17
Summerlin South				1
Sunrise Manor			16	
Whitney			1	1
Location unknown				1
Overall Total	254	16	60	41



Difference between 2014 and 2013 Total Calls: 323%

Difference between 2014 and 2012 Total Calls: 520%

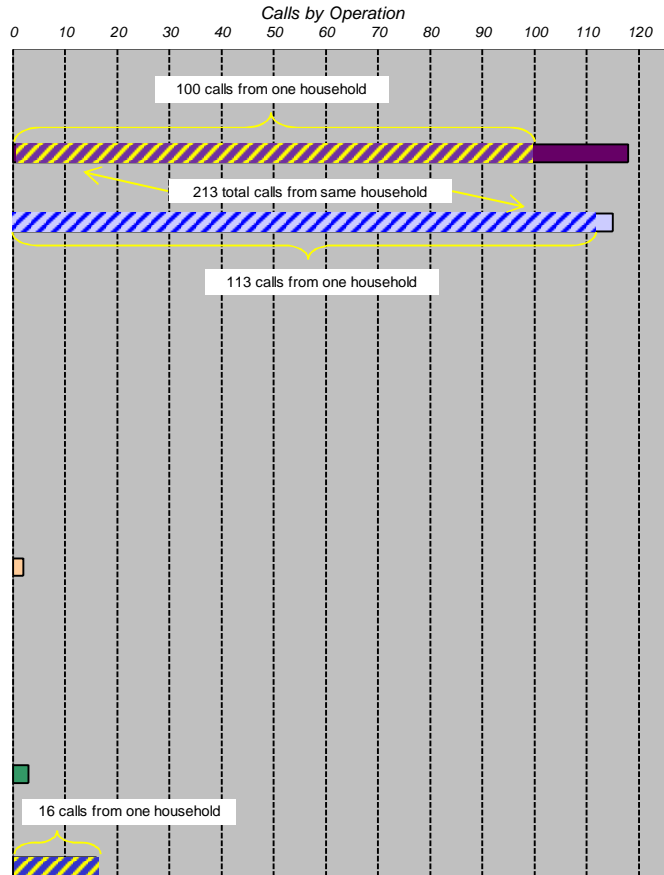
Average Number of Calls per Caller: 15.9

Most calls received from one household: 213

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

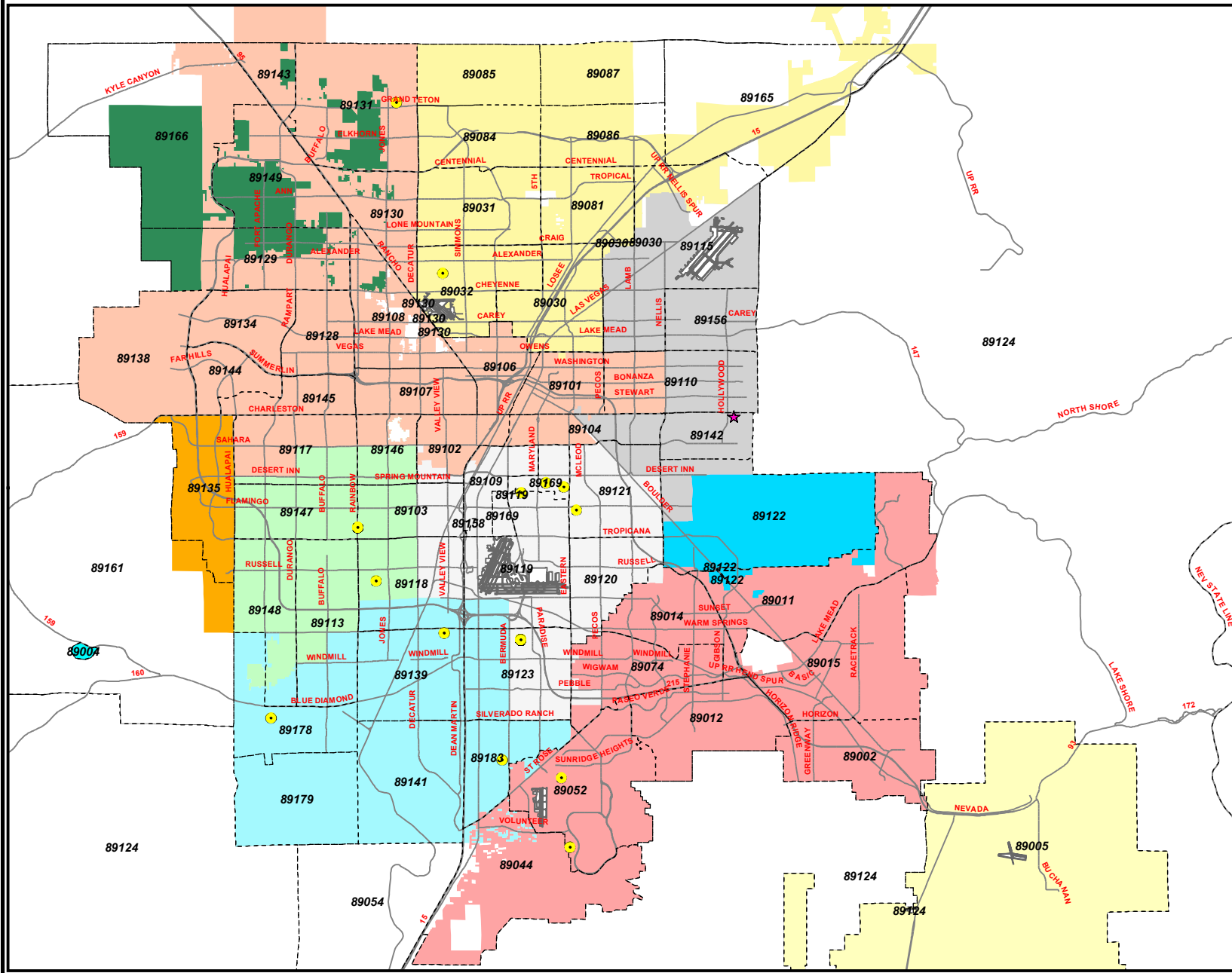
Exhibit 2: Noise Complaint Calls by Type of Operation - January 2014

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			1	
LAS 19R/L Arrivals			1	
LAS 25R/L Arrivals				
LAS 01R/L Departures	118	46.5%	18	22
LAS 07R/L Departures			1	
LAS 19R/L Departures			4	
LAS 25R/L Departures	115	45.3%	5	3
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	233	91.7%	30	25
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	2
VGT Other				
VGT Total	2	0.8%	1	2
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	3	1.2%	4	1
HND Other				
HND Total	3	1.2%	4	1
Helicopters**	16	6.3%	25	13
Overall Total	254	100%	60	41



** 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 - January 2014



Legend

January 2014
Total Complaints: 254

- Aircraft Complaints Received 238 Mapped 238
- ★ Helicopter Complaints Received 16 Mapped 16

- Major Streets
- Airports
- Zip Code Boundaries

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

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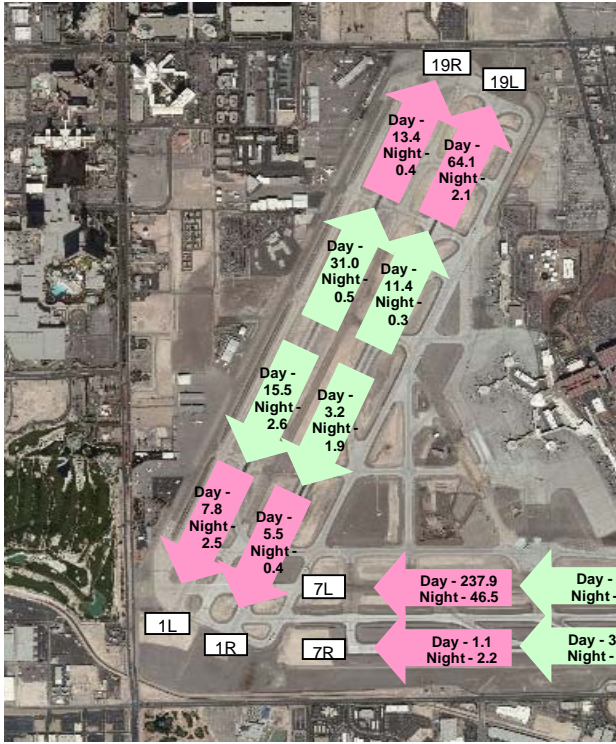
Geographic Information Systems

April 10, 2014

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

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

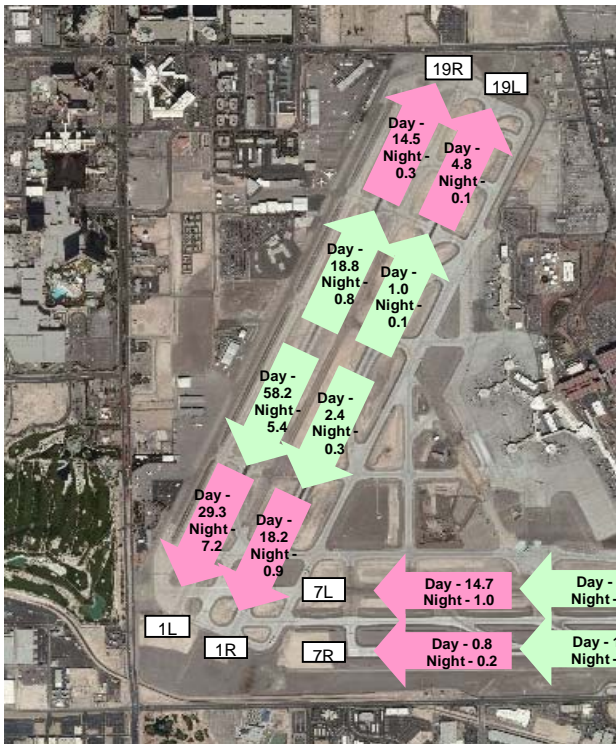


Year	2014		2013		2012	
Daytime Departures	333	86%	329	87%	373	88%
Nighttime Departures	54	14%	49	13%	53	12%
Total Departures	387	100%	378	100%	426	100%
Daytime Arrivals	395	90%	387	91%	393	90%
Nighttime Arrivals	45	10%	40	9%	44	10%
Total Arrivals	441	100%	426	100%	437	100%

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	3%	1%	10%
Depts. 2014 vs 2012	-9%	-11%	2%
Arrivals 2014 vs 2013	3%	2%	13%
Arrivals 2014 vs 2012	1%	1%	2%

* 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** - January 2014

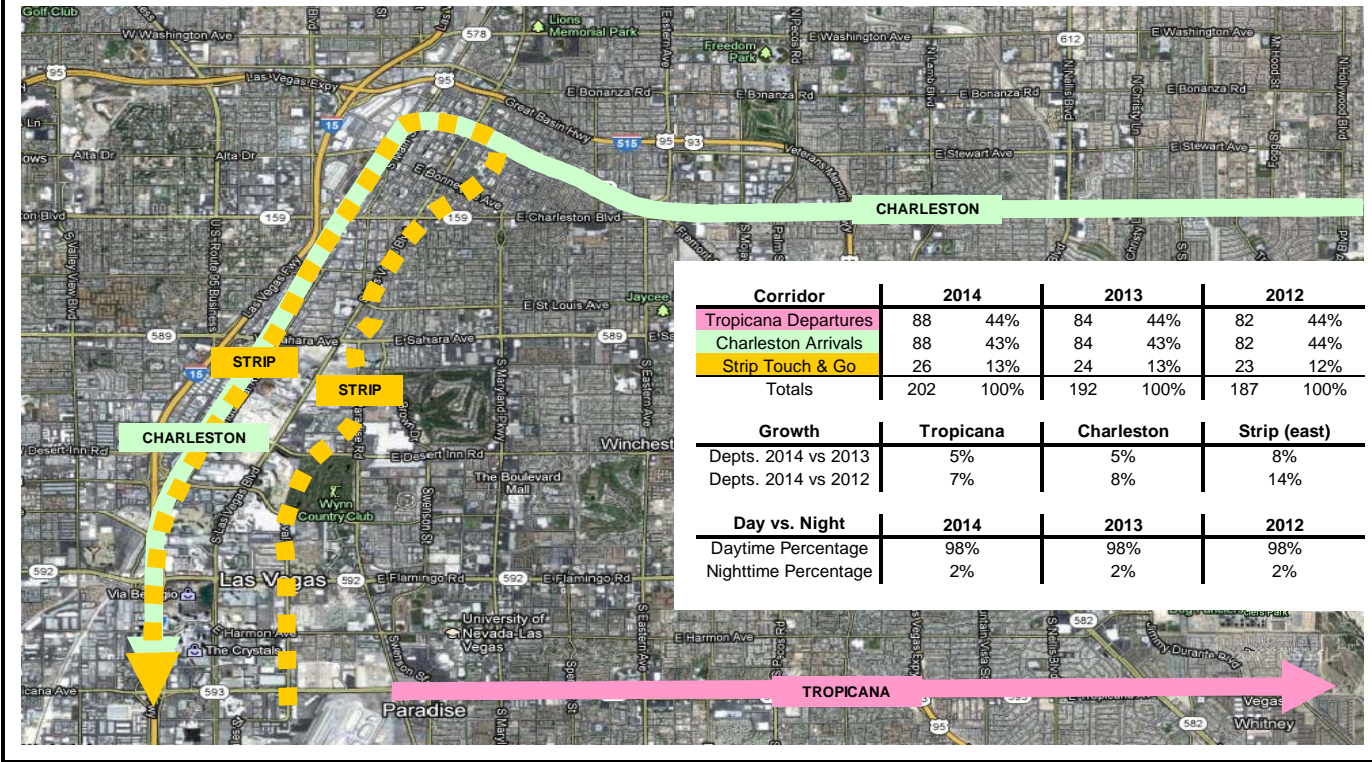


Year	2014		2013		2012	
Daytime Departures	83	89%	79	92%	97	93%
Nighttime Departures	10	11%	7	8%	7	7%
Total Departures	92	100%	86	100%	104	100%
Daytime Arrivals	100	94%	94	94%	103	94%
Nighttime Arrivals	7	6%	6	6%	6	6%
Total Arrivals	107	100%	100	100%	109	100%

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	8%	4%	44%
Depts. 2014 vs 2012	-12%	-15%	36%
Arrivals 2014 vs 2013	6%	6%	17%
Arrivals 2014 vs 2012	-2%	-3%	13%

** 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 - January 2014

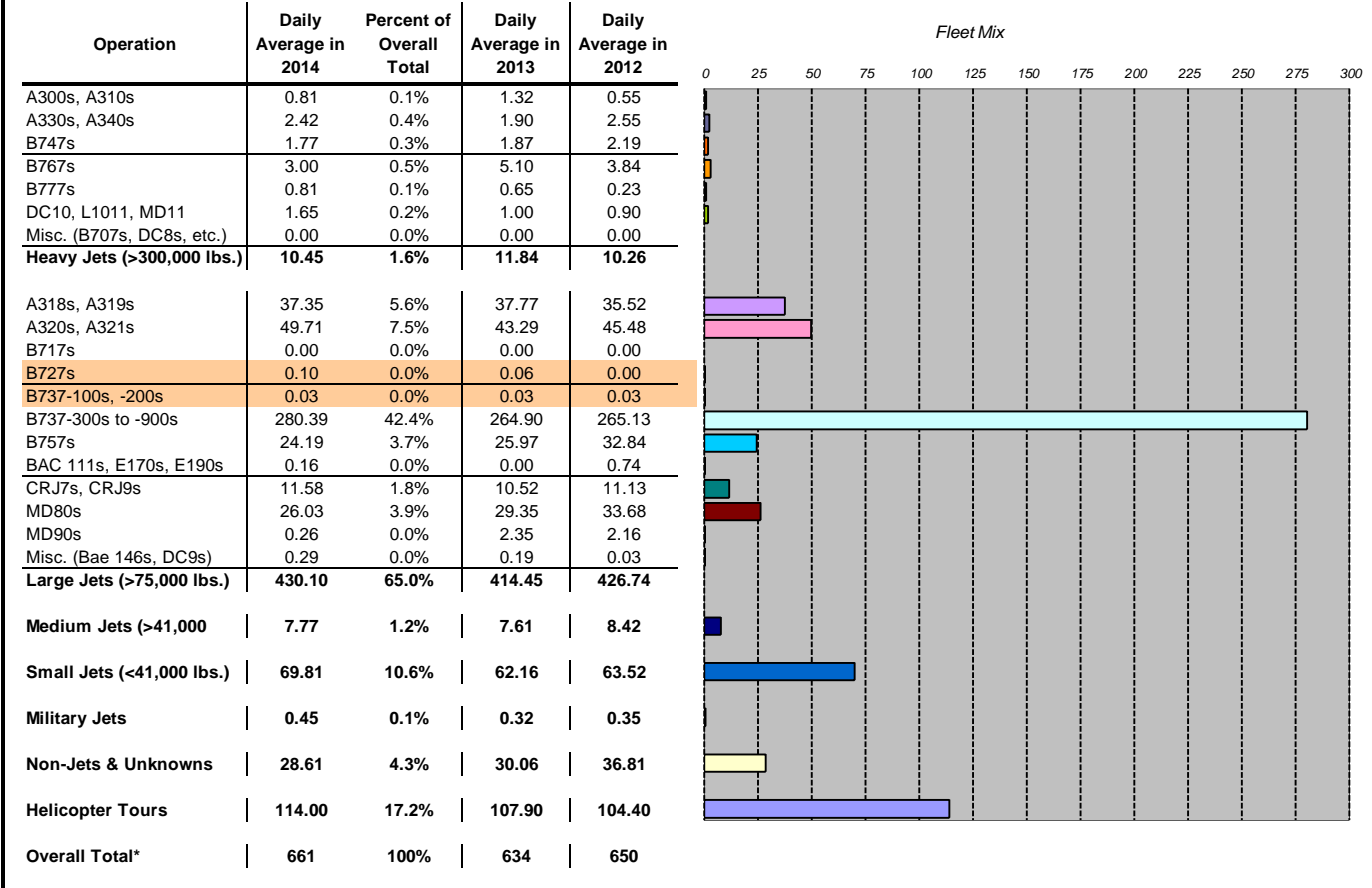


Corridor	2014		2013		2012	
Tropicana Departures	88	44%	84	44%	82	44%
Charleston Arrivals	88	43%	84	43%	82	44%
Strip Touch & Go	26	13%	24	13%	23	12%
Totals	202	100%	192	100%	187	100%

Growth	Tropicana	Charleston	Strip (east)
Depts. 2014 vs 2013	5%	5%	8%
Depts. 2014 vs 2012	7%	8%	14%

Day vs. Night	2014	2013	2012
Daytime Percentage	98%	98%	98%
Nighttime Percentage	2%	2%	2%

Exhibit 7: LAS Aircraft Arrival Fleet Mix* - January 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* - January 2014 to 2012

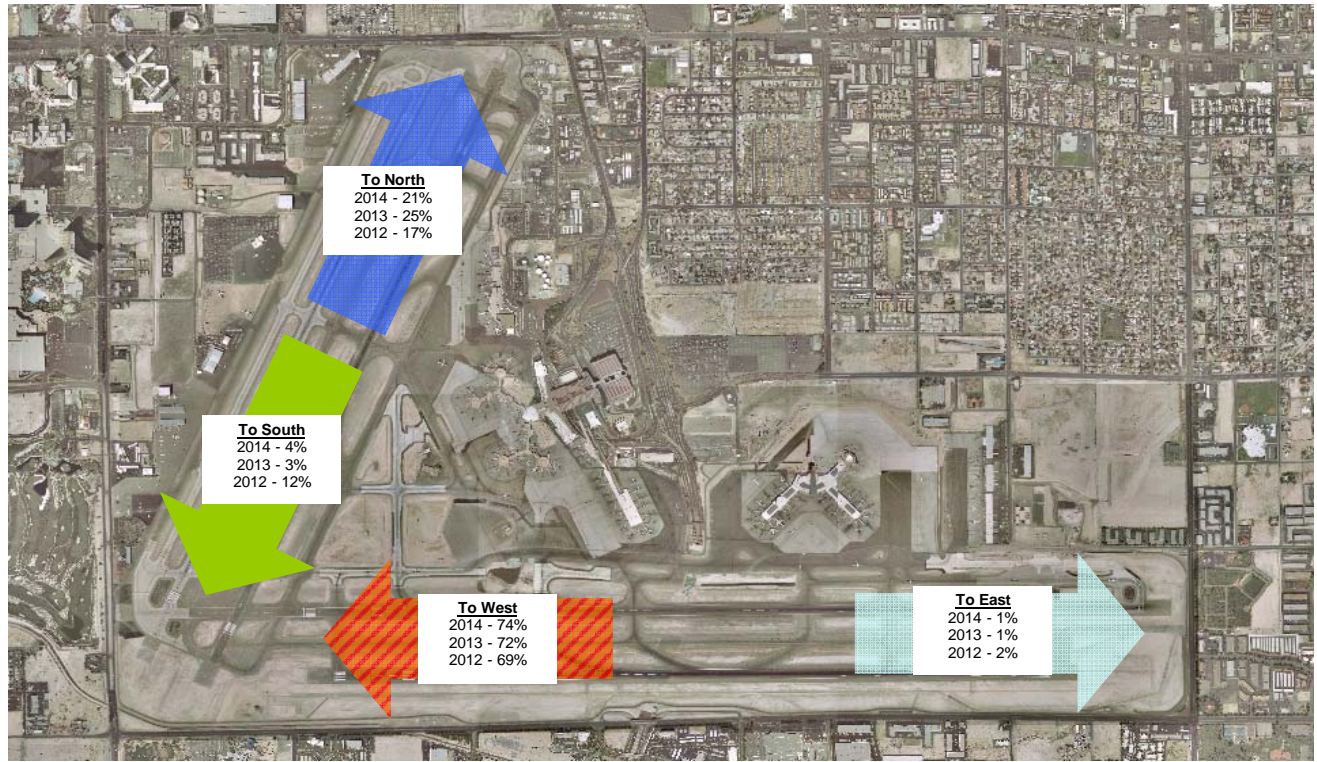
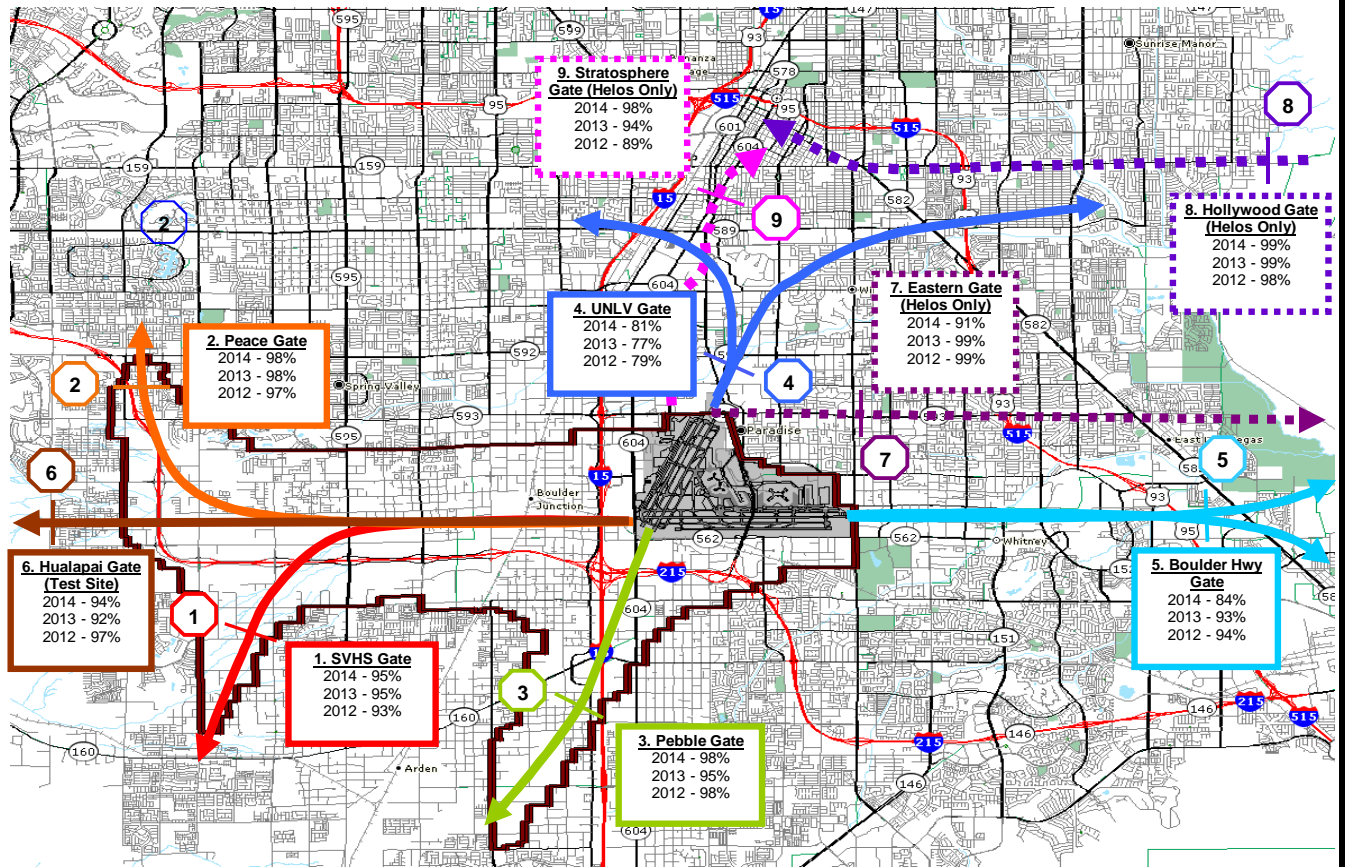


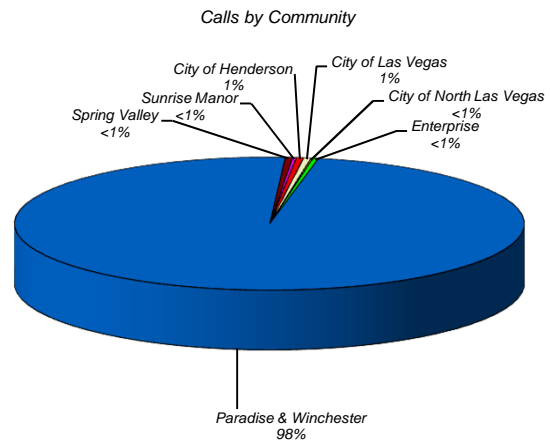
Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - January 2014



* 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* - February 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	4	4	2	9
City of Henderson	4	3		17
City of Las Vegas	1	1		
City of North Las Vegas	3	2	2	1
Enterprise			1	
Lone Mountain	844	6	9	20
Paradise & Winchester	4	3	4	15
Summerlin South				
Sunrise Manor	2	2	8	10
Whitney			1	
Location unknown				
Overall Total	862	21	27	72



Difference between 2014 and 2013 Total Calls: 3,093%

Difference between 2014 and 2012 Total Calls: 1,097%

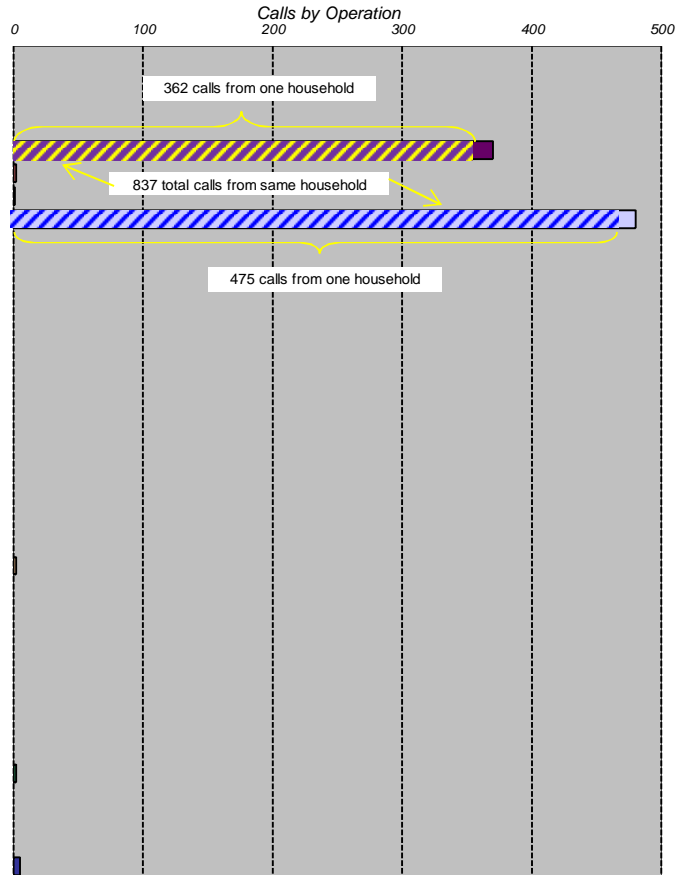
Average Number of Calls per Caller: 41.0

Most calls received from one household: 837

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

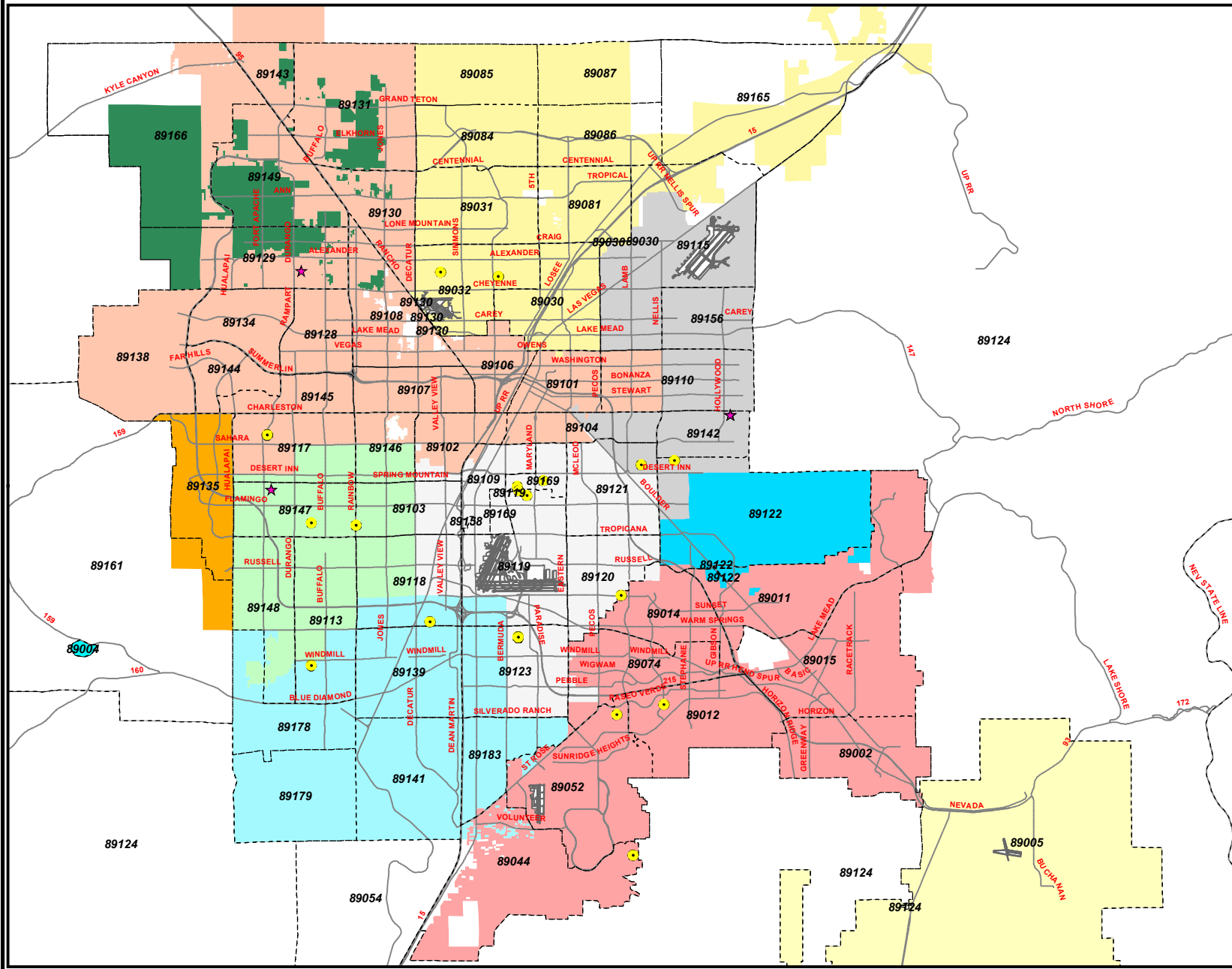
Exhibit 2: Noise Complaint Calls by Type of Operation - February 2014

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				1
LAS 19R/L Arrivals				
LAS 25R/L Arrivals				
LAS 01R/L Departures	370	42.9%	5	22
LAS 07R/L Departures	2	0.2%	4	16
LAS 19R/L Departures	1	0.1%		1
LAS 25R/L Departures	480	55.7%	3	18
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	853	99.0%	12	58
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	0.2%	0	2
VGT Other				
VGT Total	2	0.2%	0	2
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	2	0.2%	0	3
HND Other				
HND Total	2	0.2%	0	3
Helicopters**	5	0.6%	15	9
Overall Total	862	100%	27	72



** 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 - February 2014



Legend

February 2014
Total Complaints: 862

- Aircraft Complaints Received 857 Mapped 857
- ★ Helicopter Complaints Received 5 Mapped 5
- Major Streets
- Airports
- - - Zip Code Boundaries
- Unincorporated Clark County
- Boulder City
- Whitney
- Henderson
- Las Vegas
- North Las Vegas
- Paradise/Winchester
- Summerlin
- Spring Valley
- Sunrise Manor
- Winchester
- Enterprise
- Lone Mountain

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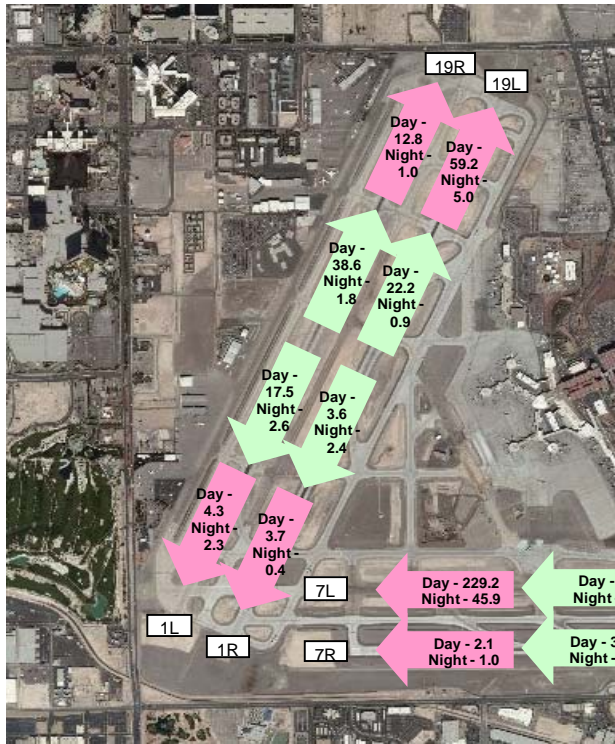
Geographic Information Systems

April 10, 2014

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

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Exhibit 4: LAS Daily Average Operations by Runway for Large Air Carrier Aircraft* - February 2014

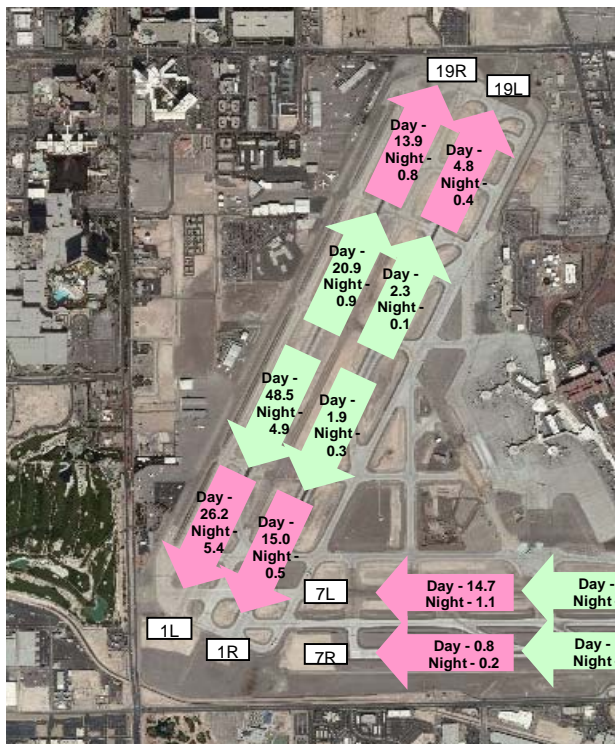


Year	2014		2013		2012	
Daytime Departures	335	86%	329	85%	363	87%
Nighttime Departures	57	14%	58	15%	55	13%
Total Departures	392	100%	387	100%	417	100%
Daytime Arrivals	393	89%	388	89%	397	89%
Nighttime Arrivals	50	11%	46	11%	50	11%
Total Arrivals	442	100%	434	100%	447	100%

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	1%	2%	-2%
Depts. 2014 vs 2012	-6%	-8%	4%
Arrivals 2014 vs 2013	2%	1%	7%
Arrivals 2014 vs 2012	-1%	-1%	0%

* 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** - February 2014



Year	2014		2013		2012	
Daytime Departures	81	91%	74	92%	87	92%
Nighttime Departures	8	9%	7	8%	8	8%
Total Departures	89	100%	81	100%	95	100%
Daytime Arrivals	93	93%	88	92%	103	94%
Nighttime Arrivals	7	7%	7	8%	6	6%
Total Arrivals	100	100%	95	100%	110	100%

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	10%	9%	24%
Depts. 2014 vs 2012	-6%	-8%	8%
Arrivals 2014 vs 2013	5%	6%	-8%
Arrivals 2014 vs 2012	-9%	-10%	5%

** 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 - February 2014

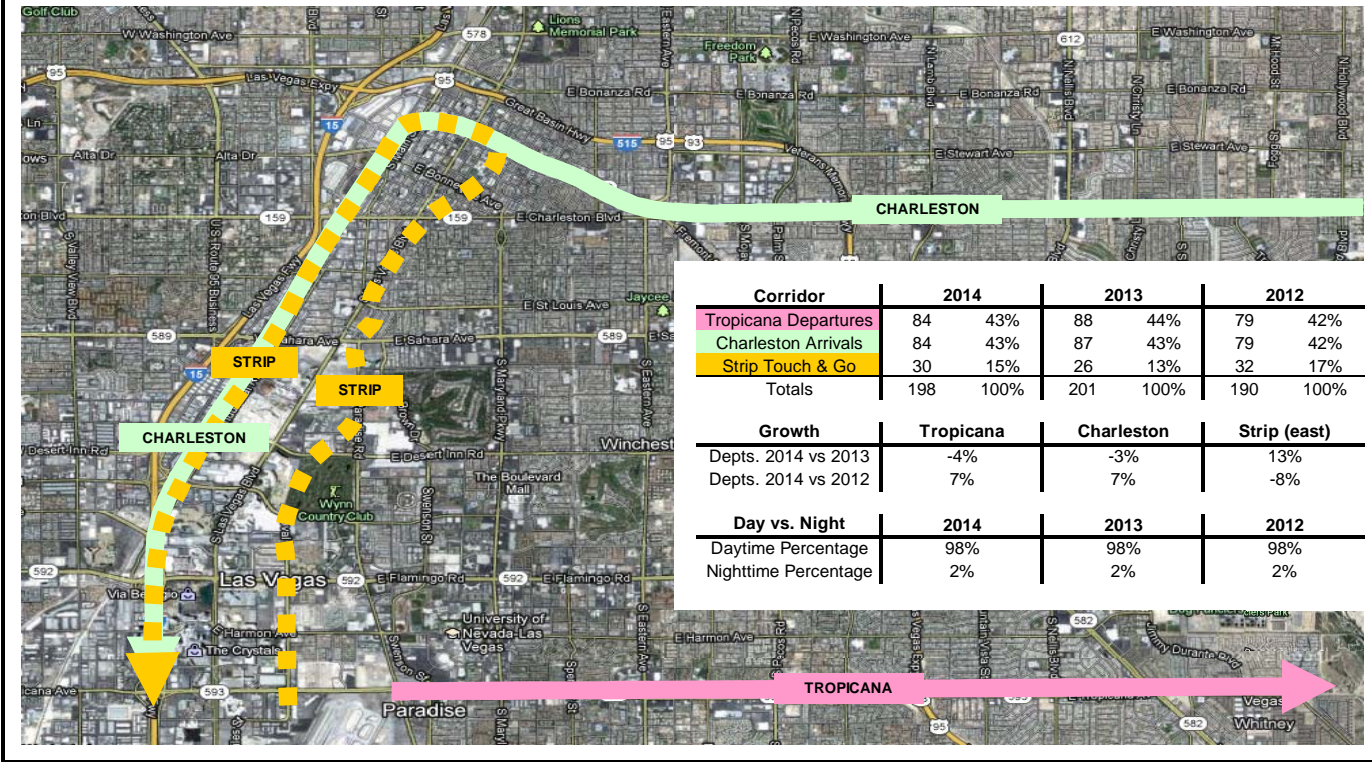
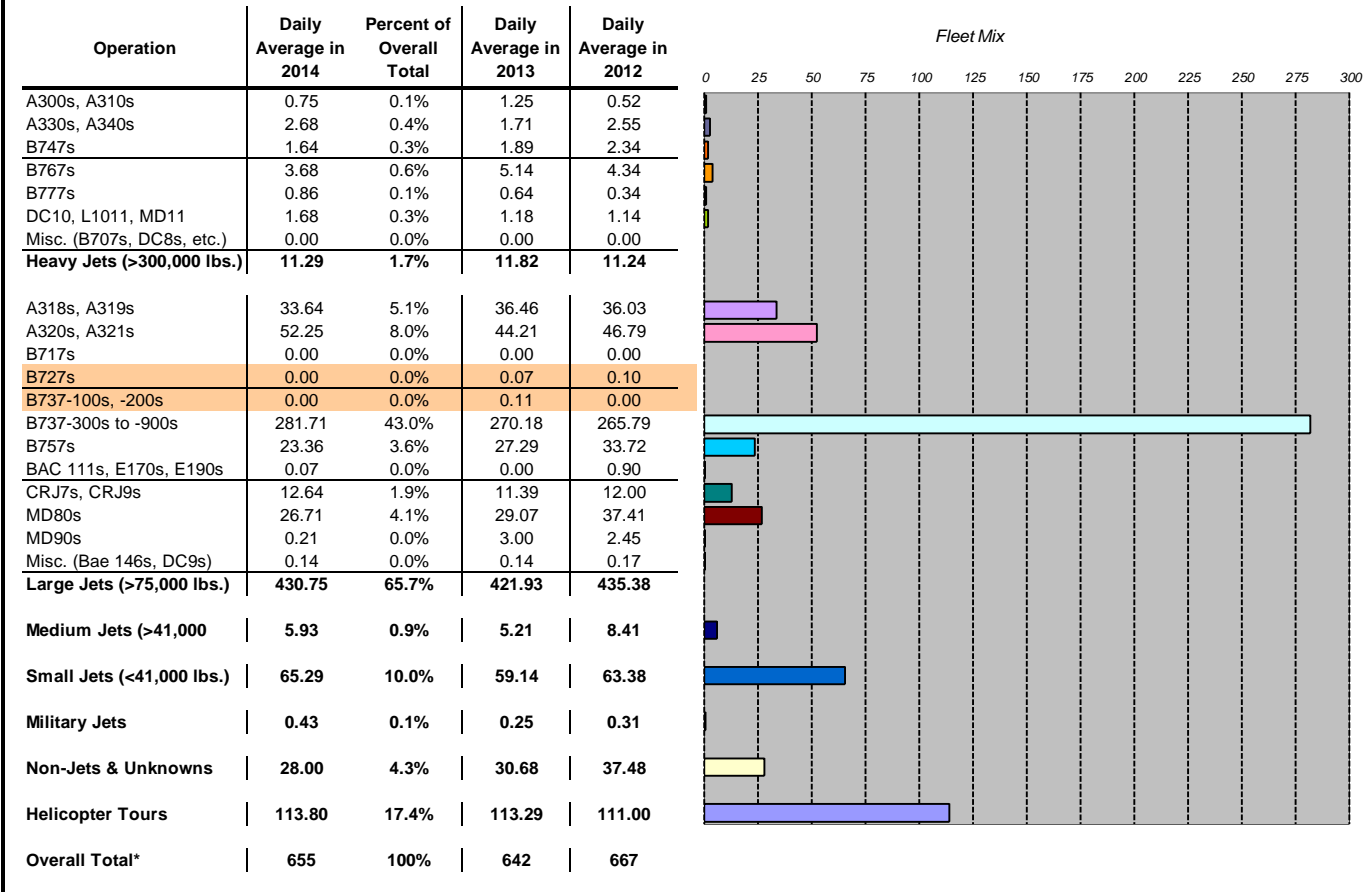


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - February 2014



* 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* - February 2014 to 2012

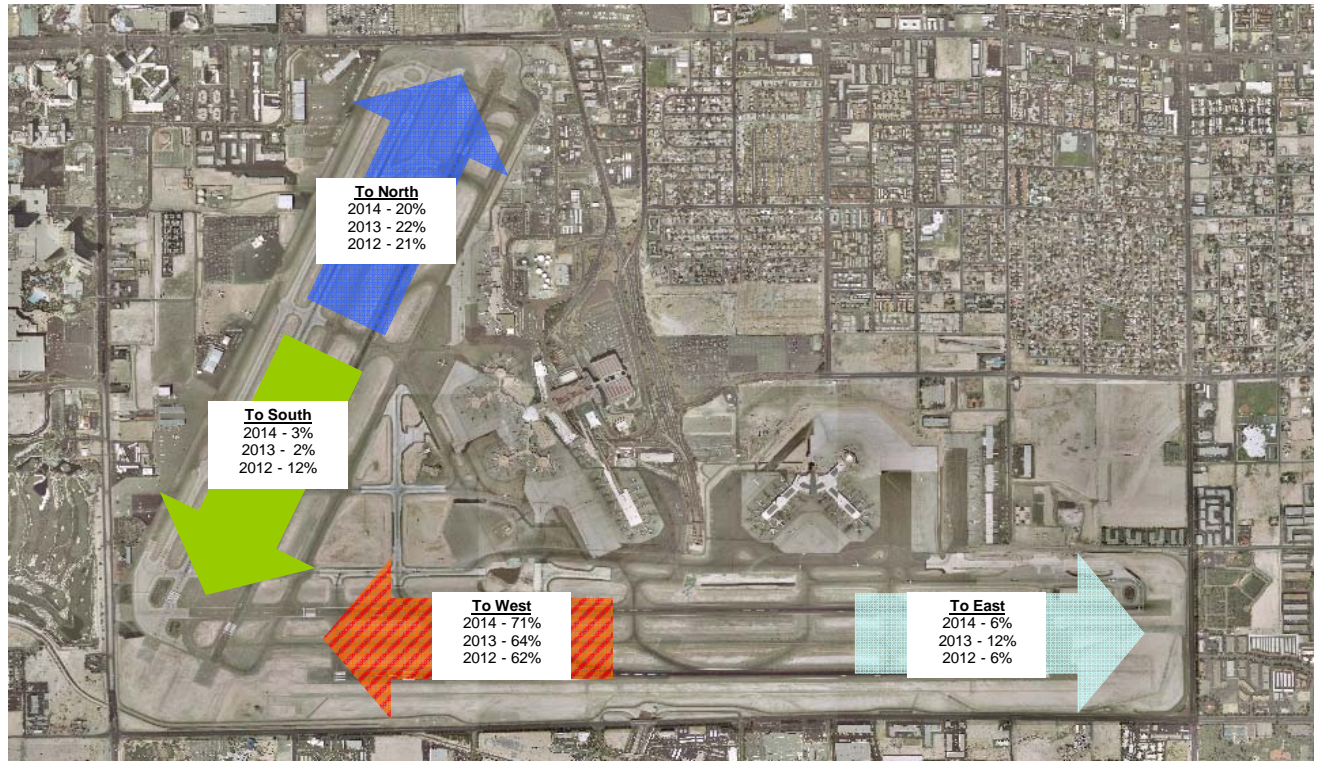
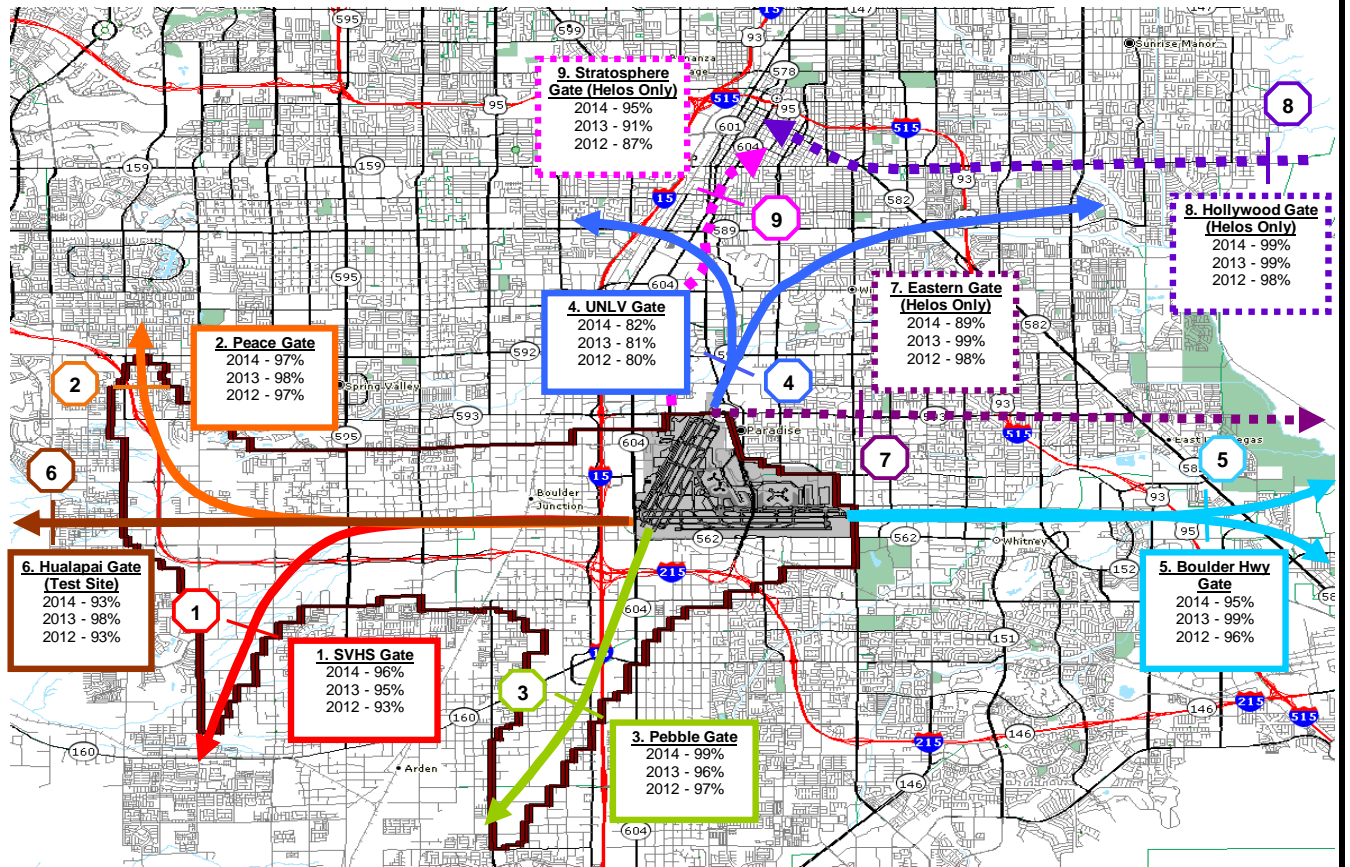


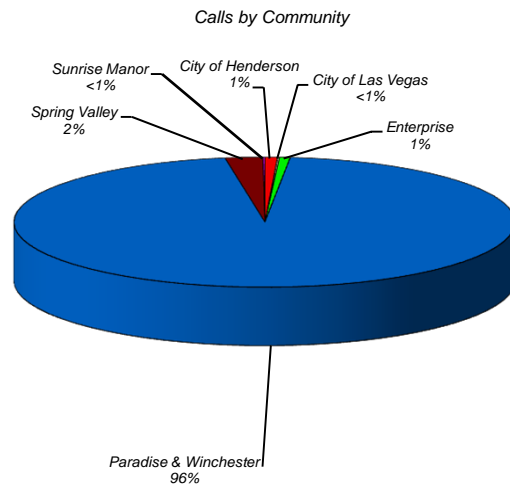
Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - February 2014



* 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* - March 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	7	6	6	22
City of Henderson	1	1	7	7
City of Las Vegas	1	1	7	7
City of North Las Vegas				1
Enterprise	6	3		1
Lone Mountain			2	
Paradise & Winchester	828	6	5	1
Spring Valley	21	4	3	9
Summerlin South			5	
Sunrise Manor	1	1	13	1
Whitney				
Location unknown				
Overall Total	864	21	41	42



Difference between 2014 and 2013 Total Calls: 2,007%

Difference between 2014 and 2012 Total Calls: 1,957%

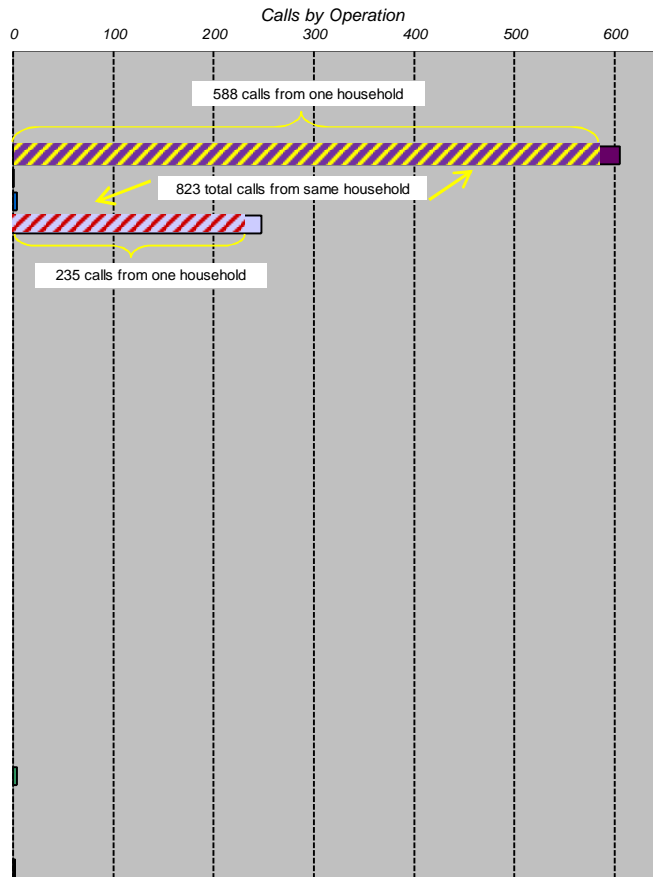
Average Number of Calls per Caller: 41.1

Most calls received from one household: 823

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

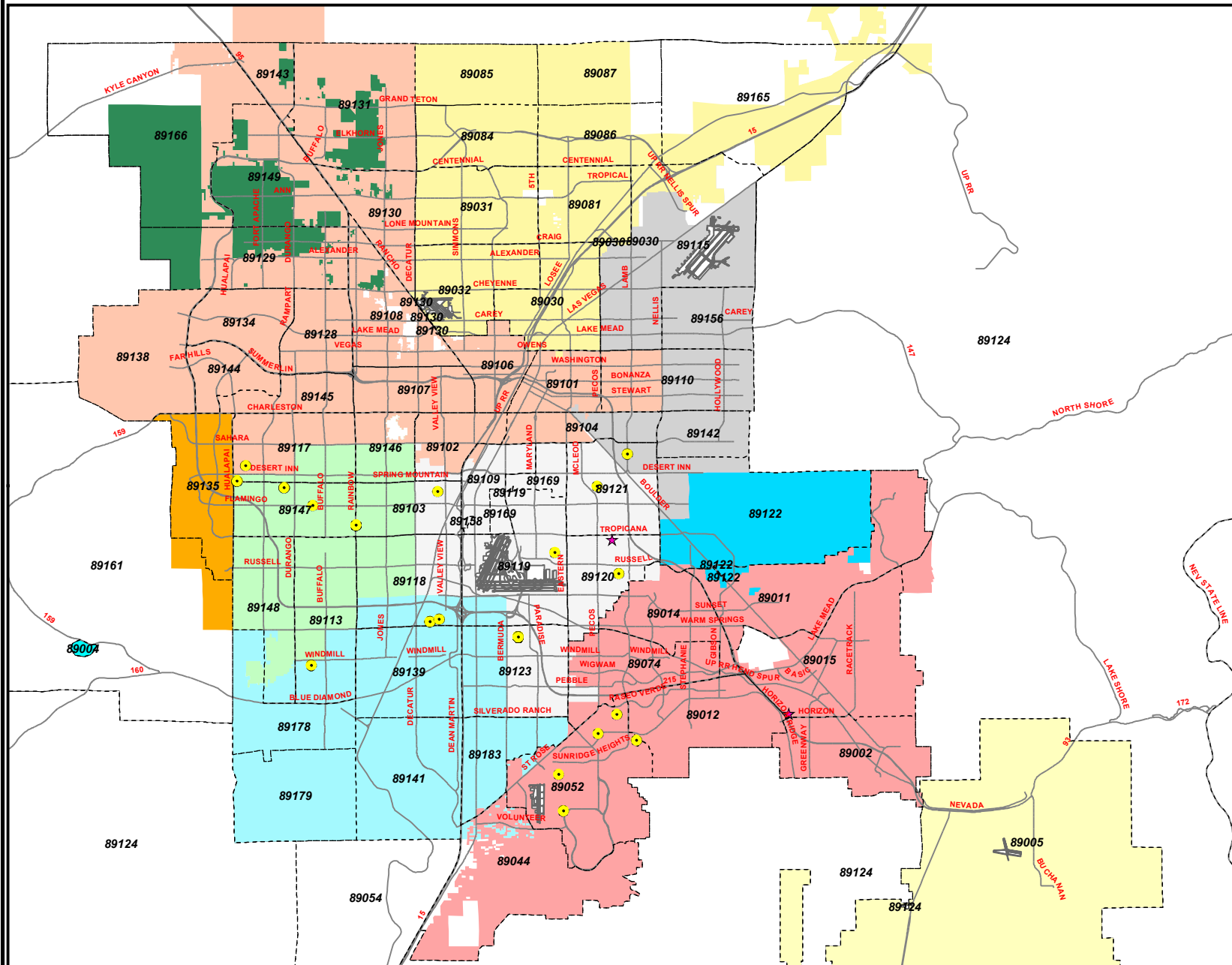
Exhibit 2: Noise Complaint Calls by Type of Operation - March 2014

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				
LAS 25R/L Arrivals				
LAS 01R/L Departures	605	70.0%	8	7
LAS 07R/L Departures	1			
LAS 19R/L Departures	4	0.1%		1
LAS 25R/L Departures	248	28.7%	6	9
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	858	99.3%	14	17
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	0	0.0%		1
VGT Other				
VGT Total	0	0.0%	0	1
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	4	0.5%	3	3
HND Other				
HND Total	4	0.5%	3	3
Helicopters**	2	0.2%	24	21
Overall Total	864	100%	41	42



** 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 - March 2014



Legend

March 2014
Total Complaints: 864

- Aircraft Complaints Received 862 Mapped 862
- ★ Helicopter Complaints Received 2 Mapped 2
- 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

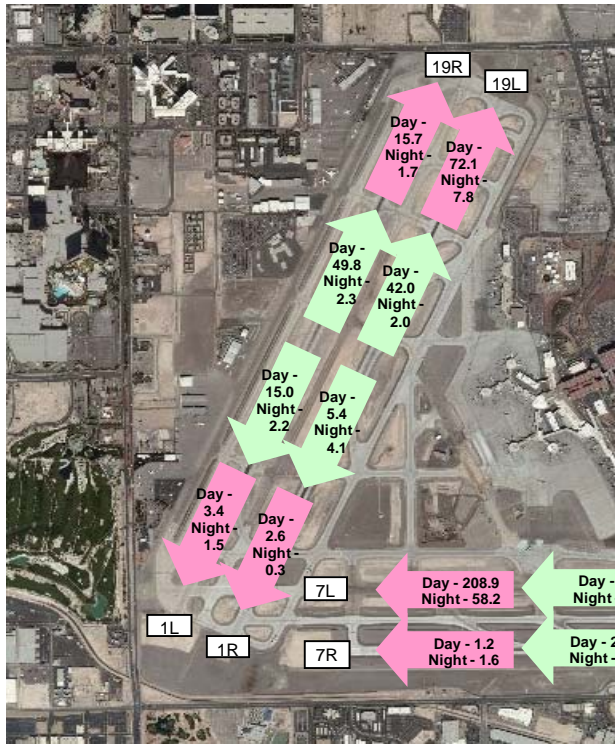
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April 10, 2014

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

H:\GIS\Standard Projects\Noise\2014\01_2014

Exhibit 4: LAS Daily Average Operations by Runway for Large Air Carrier Aircraft* - March 2014

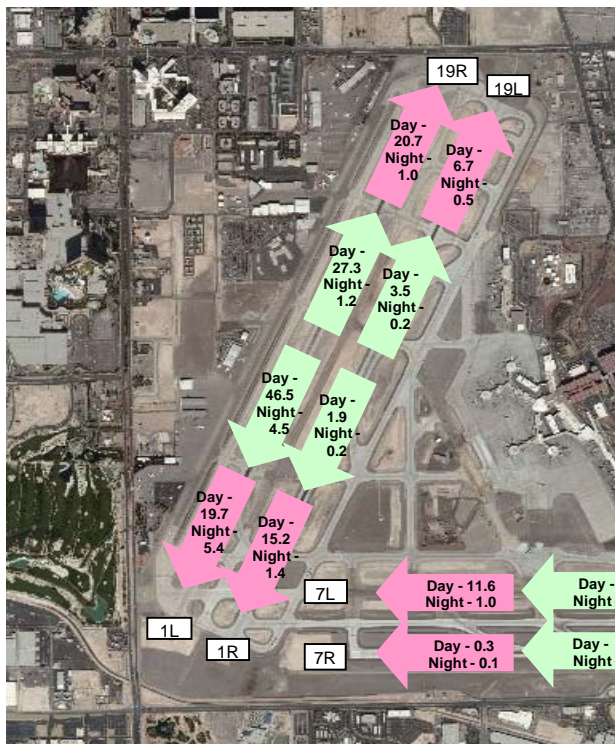


Year	2014		2013		2012	
Daytime Departures	348	83%	344	82%	382	84%
Nighttime Departures	74	17%	74	18%	70	16%
Total Departures	422	100%	417	100%	453	100%
Daytime Arrivals	412	87%	408	88%	416	87%
Nighttime Arrivals	62	13%	57	12%	63	13%
Total Arrivals	474	100%	465	100%	479	100%

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	1%	1%	0%
Depts. 2014 vs 2012	-7%	-9%	5%
Arrivals 2014 vs 2013	2%	1%	9%
Arrivals 2014 vs 2012	-1%	-1%	-2%

* 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** - March 2014

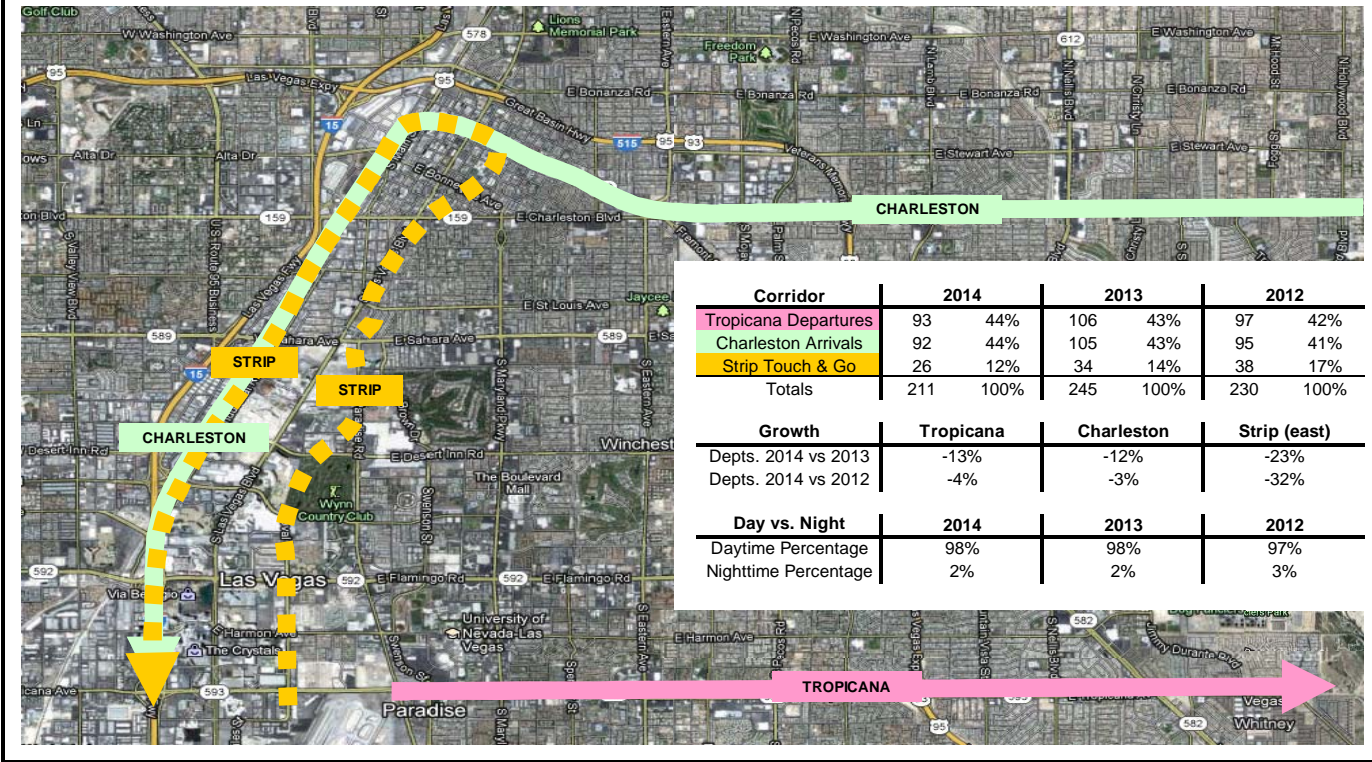


Year	2014		2013		2012	
Daytime Departures	82	90%	73	90%	76	91%
Nighttime Departures	10	10%	8	10%	8	9%
Total Departures	92	100%	81	100%	83	100%
Daytime Arrivals	98	94%	87	94%	92	94%
Nighttime Arrivals	6	6%	6	6%	6	6%
Total Arrivals	105	100%	93	100%	98	100%

Growth	Overall	Daytime	Nighttime
Depts. 2014 vs 2013	14%	13%	22%
Depts. 2014 vs 2012	10%	9%	25%
Arrivals 2014 vs 2013	12%	13%	8%
Arrivals 2014 vs 2012	7%	7%	7%

** 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 - March 2014

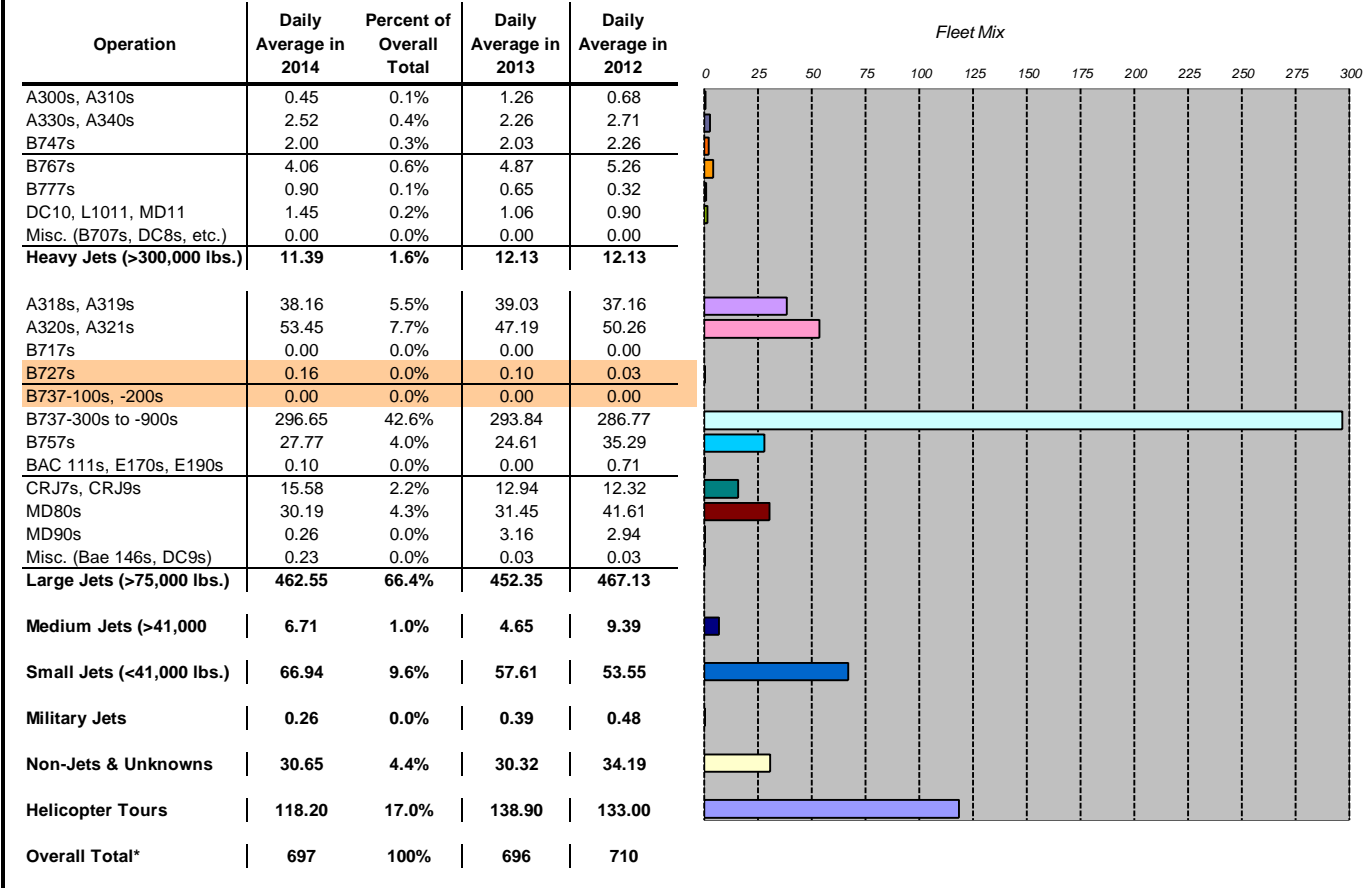


Corridor	2014	2013	2012
Tropicana Departures	93 44%	106 43%	97 42%
Charleston Arrivals	92 44%	105 43%	95 41%
Strip Touch & Go	26 12%	34 14%	38 17%
Totals	211 100%	245 100%	230 100%

Growth	Tropicana	Charleston	Strip (east)
Depts. 2014 vs 2013	-13%	-12%	-23%
Depts. 2014 vs 2012	-4%	-3%	-32%

Day vs. Night	2014	2013	2012
Daytime Percentage	98%	98%	97%
Nighttime Percentage	2%	2%	3%

Exhibit 7: LAS Aircraft Arrival Fleet Mix* - March 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* - March 2014 to 2012

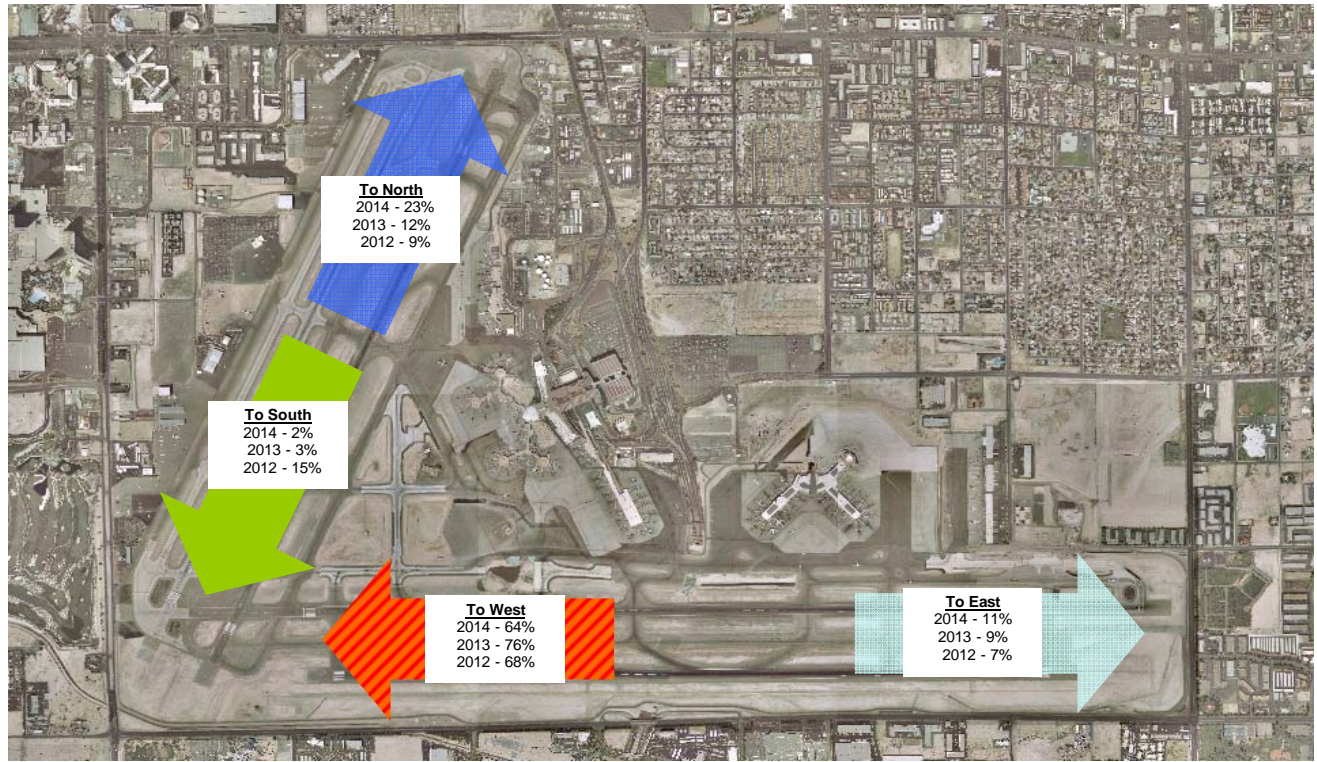
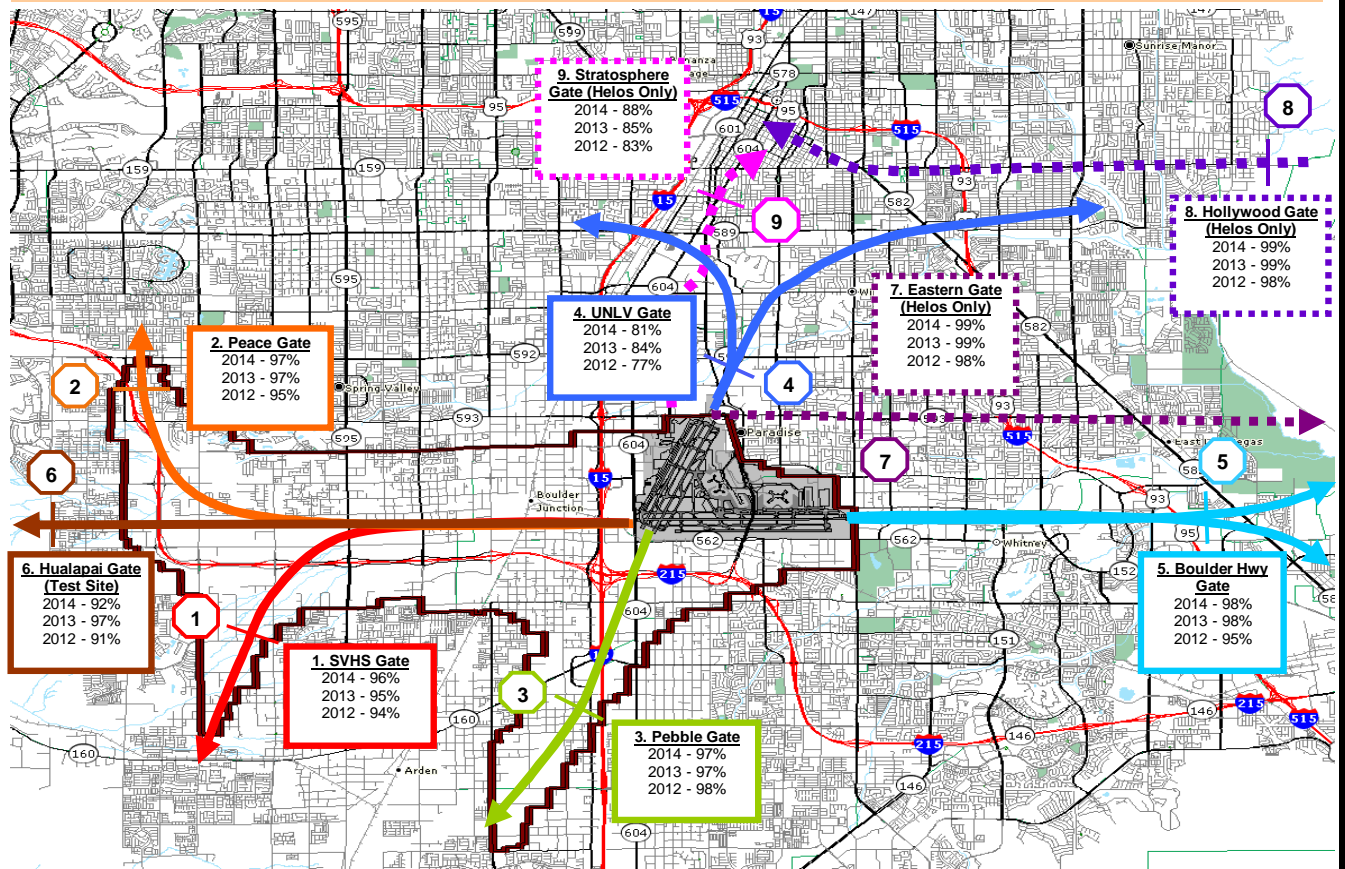


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - March 2014



* 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.