

MEMORANDUM

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Director

DEPARTMENT OF AVIATION

TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER

SUBJECT: JANUARY THROUGH MARCH 2015 NOISE COMPLAINT REPORTS

DATE: APRIL 15, 2015

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for January through March 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, 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 2015: 518 total complaints - a 104% increase from 2014 and a 763% increase from 2013. On average, each caller (or household) issued 10.4 calls. The most calls received from one household totaled 461.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 496 calls (96%). 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: One household issued 89% (461 calls) of all the calls received in January 2015.

Calls by Operation - (Exhibit 2)

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

- 98% were due to departures to the north from Runways 01L and 01R (91% from one household).

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

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

Overall: 358 daily *departures*¹ – an 8% decrease from 2014 and 5% decrease from 2013.

- 90% of departures were to the north, 7% east, 3% south, and 1% west.

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

- 59% of arrivals were from the east, and 41% from the south.

Daytime: 303 daily *departures*² – a 9% decrease from 2014 and 8% decrease from 2013.

- 89% of departures were to the north, 8% east, and 2% south.

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

- 57% of arrivals were from the east, and 43% from the south.

Nighttime: 55 daily *departures*³ – a 1% increase from 2014 and 11% increase from 2013.

- 95% of departures were to the north, 3% south, 1% west, and 1% east.

48 daily *arrivals* – a 6% increase from 2014 and a 20% increase from 2013.

- 73% of arrivals were from the east, and 27% from the south.

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.

³ See footnote #1.

Daytime vs. Nighttime: Approximately 85% of all *departures* and 89% of all *arrivals* occurred during the daytime hours.

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

- Overall:** 85 daily *departures*⁴ – an 8% decrease from 2014 and 1% decrease from 2013.
▪ 91% of departures were to the north, 6% east, 2% south, and 1% west.
105 daily *arrivals* – a 2% decrease from 2014 and 4% increase from 2013.
▪ 62% of arrivals were from the south, 36% from the east, 1% north, and 1% west.
- Daytime:** 77 daily *departures*⁵ – a 6% decrease from 2014 and a 2% decrease from 2013.
▪ 91% of departures were to the north, 7% east, 2% south, and 1% west.
99 daily *arrivals* – a 1% decrease from 2014 and a 5% increase from 2013.
▪ 61% of arrivals were from the south, 37% east, and 1% west.
- Nighttime:** 8 daily *departures*⁶ – a 17% decrease from 2014 and a 3% decrease from 2013.
▪ 92% of departures were to the north, 5% south, and 3% west.
6 daily *arrivals* – a 17% decrease from 2014 and a 3% decrease from 2013.
▪ 75% of arrivals were from the south, 18% east, 6% north, and 1% west.

Daytime vs. Nighttime: Approximately 91% of all *departures* and 95% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 73 daily *departures* - a 17% decrease from 2014 and a 13% decrease from 2013.

Charleston: 74 daily *arrivals* - a 16% decrease from 2014 and an 11% decrease from 2013.

Strip: 29 daily *touch and go's* - a 12% increase from 2014 and a 21% increase from 2013.

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 11% of the daily traffic.

⁴ See footnote #1.

⁵ See footnote #1.

⁶ See footnote #1.

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 16% 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 2015, <1% departed to the *west* (from LAS's primary departure runways). This figure was 74% in 2014 and 72% in 2013.

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

Alternate 1: In 2015, 90% departed to the *north* (from LAS's alternate departure runways). This figure was 21% in 2014 and 25% in 2013.

Alternate 2: In 2015, 7% departed to the *east* (from LAS's alternate departure runways). This figure was 1% in 2014 and 1% in 2013.

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

SVHS: In 2015, 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 2014 and 95% 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, 86% 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 2014 and 98% 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 87% 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 98% in 2014 and 95% 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, 83% of the large air carrier aircraft that departed to the north from Runways 01L or 01R were within 0.3 NM of the *UNLV sports complex*. This figure was 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, 91% 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 84% in 2014 and 93% 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, there were zero operations 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 94% in 2014 and 92% in 2013.

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, 95% 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 91% 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 99% 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, 97% 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 94% 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 **typical** residential complaints, fleet mix, and gate compliance with the exception of the number of complaints tied to a single household, and northern runway use due to construction activities on Runway 07L/25R.

February 2013: 401 total complaints - a 53% decrease from 2014 and a 1,385% increase from 2013. On average, each caller (or household) issued 13.8 calls. The most calls received from one household totaled 361.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 376 calls (94%). (See January 2015 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 90% (361 calls) of all the calls received in February 2015.

Calls by Operation - (Exhibit 2)

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

- 75% were due to departures to the north from Runways 01L and 01R (93% from one household).
- 21% were due to departures to the south from Runways 19L and 19R (85% from one household, which is the same household that issued 93% of the calls for Runways 01L and 01R).

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* - (Exhibit 4)

Overall: 364 daily *departures*⁷ – a 7% decrease from 2014 and 6% decrease from 2013.

- 72% of departures were to the north, 15% south, 11 east, and 2% west.

452 daily *arrivals* – a 2% increase from 2014 and 4% increase from 2013.

- 59% of arrivals were from the east, 38% from the south, and 3% from the north.

Daytime: 305 daily *departures*⁸ – a 9% decrease from 2014 and 7% decrease from 2013.

- 72% of departures were to the north, 15% south, 12% east, and 1% west.

400 daily *arrivals* – a 2% increase from 2014 and a 3% increase from 2013.

- 59% of arrivals were from the east, 39% from the south, and 3% from the north.

Nighttime: 59 daily *departures*⁹ – a 4% increase from 2014 and 2% increase from 2013.

- 71% of departures were to the north, 16% south, 7% east, and 6% west.

53 daily *arrivals* – a 6% increase from 2014 and 14% increase from 2013.

- 70% of arrivals were from the east, 27% from the south, and 3% from the north.

Daytime vs. Nighttime: Approximately 84% of all *departures* and 88% 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:** 76 daily *departures*¹⁰ – a 15% decrease from 2014 and 6% decrease from 2013.
▪ 76% of departures were to the north, 13% south, 9% east, and 2% west.
90 daily *arrivals* – a 9% decrease from 2014 and 5% decrease from 2013.
▪ 58% of arrivals were from the south, 28% east, 11% north, and 2% west.
- Daytime:** 69 daily *departures*¹¹ – a 15% decrease from 2014 and an 8% decrease from 2013.
▪ 76% of departures were to the north, 12% south, 10% east, and 1% west.
83 daily *arrivals* – an 11% decrease from 2014 and a 6% decrease from 2013.
▪ 58% of arrivals were from the south, 29% east, 11% north, and 2% west.
- Nighttime:** 7 daily *departures*¹² – a 12% decrease from 2014 and a 9% increase from 2013.
▪ 69% of departures were to the north, 23% south, 6% west, and 2% east.
7 daily *arrivals* – a 12% increase from 2014 and a 3% increase from 2013.
▪ 66% of arrivals were from the south, 17% north, 16% east, and 2% west.

Daytime vs. Nighttime: Approximately 90% of all *departures* and 92% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 82 daily *departures* – a 3% decrease from 2014 and a 7% decrease from 2013.

Charleston: 84 daily *arrivals* - a 1% decrease from 2014 and a 4% decrease from 2013.

Strip: 38 daily *touch and go's* - a 29% increase from 2014 and a 46% increase from 2013.

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 9% 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 18% 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 2015, 2% departed to the *west* (from LAS's primary departure runways). This figure was 71% in 2014 and 64% in 2013.

Secondary: In 2015, 15% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2014 and 2% in 2013.

Alternate 1: In 2015, 72% departed to the *north* (from LAS's alternate departure runways). This figure was 20% in 2014 and 22% in 2013.

Alternate 2: In 2015, 11% departed to the *east* (from LAS's alternate departure runways). This figure was 6% in 2014 and 12% in 2013.

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

SVHS: In 2015, 88% 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 95% in 2013. (See January 2015 synopsis for specific location of the SVHS gate.)

Peace: In 2015, 89% 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 2014 and 98% in 2013. (See January 2015 synopsis for specific location of the Peace gate.)

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 99% in 2014 and 96% in 2013. (See January 2015 synopsis for specific location of the Pebble gate.)

UNLV: In 2015, 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 82% in 2014 and 81% in 2013. (See January 2015 synopsis for specific location of the UNLV gate.)

Boulder: In 2015, 90% 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 95% in 2014 and 99% in 2013. (See January 2015 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2015, 88% of the large air carrier aircraft destined to the Nevada National Security Site that departed to the west from Runways 25L or 25R were within 0.3 NM of the extended runway centerline, near *Hualapai Way*. This figure was 93% in 2014 and 98% in 2013. (See January 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 89% in 2014 and 99% in 2013. (See January 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 99% in 2014 and 99% in 2013. (See January 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 95% in 2014 and 91% in 2013. (See January 2015 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **typical** residential complaints, fleet mix, and gate compliance with the exception of the number of complaints tied to a single household, and northern runway use due to construction activities on Runway 07L/25R.

March 2013: 524 total complaints - a 39% decrease from 2014 and a 1,178% increase from 2013. On average, each caller (or household) issued 10.9 calls. The most calls received from one household totaled 468.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 482 calls (92%). (See January 2015 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 89% (468 calls) of all the calls received in March 2015.

Calls by Operation - (Exhibit 2)

LAS: 98% of the total calls received were due to *LAS* fixed-wing operations.

- 91% were due to departures to the north from Runways 01L and 01R (96% from one household).

VGT: 0% 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.

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

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

Overall: 395 daily *departures*¹³ – a 6% decrease from 2014 and a 5% decrease from 2013.

- 61% of departures were to the north, 23% south, 13% east, and 3% west.

479 daily *arrivals* – a 1% increase from 2014 and 3% increase from 2013.

- 58% of arrivals were from the east, 36% south, and 7% north.

¹³ See footnote #1.

Daytime: 321 daily *departures*¹⁴ – an 8% decrease from 2014 and 7% decrease from 2013.
▪ 60% of departures were to the north, 23% south, 15% east, and 2% west.
412 daily *arrivals* – no change from 2014 and 1% increase from 2013.
▪ 56% of arrivals were from the east, 37% south, and 7% north.

Nighttime: 74 daily *departures*¹⁵ – no change from 2014 and no change from 2013.
▪ 67% of departures were to the north, 22% south, 7% west and 5% east.
67 daily *arrivals* – a 7% increase from 2014 and 17% increase from 2013.
▪ 68% of arrivals were from the east, 26% south, and 6% north.

Daytime vs. Nighttime: Approximately 81% 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*¹⁶ – a 14% decrease from 2014 and a 3% decrease from 2013.
▪ 68% of departures were to the north, 20% south, 9% east, and 3% west.
96 daily *arrivals* – an 8% decrease from 2014 and a 3% increase from 2013.
▪ 57% of arrivals were from the south, 24% east, 17% north, and 2% west.

Daytime: 71 daily *departures*¹⁷ – a 14% decrease from 2014 and a 3% decrease from 2013.
▪ 68% of departures were to the north, 20% south, 10% east, and 3% west.
89 daily *arrivals* – a 10% decrease from 2014 and a 2% increase from 2013.
▪ 57% of arrivals were from the south, 25% east, 17% north, and 2% west.

Nighttime: 8 daily *departures*¹⁸ – a 17% decrease from 2014 and a 1% increase from 2013.
▪ 68% of departures were to the north, 24% south, 4% west, and 4% east.
7 daily *arrivals* – a 16% increase from 2014 and a 25% increase from 2013.
▪ 60% of arrivals were from the south, 25% north, 14% east, and 1% west.

Daytime vs. Nighttime: Approximately 90% of all *departures* and 92% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 94 daily *departures* – a 2% increase from 2014 and an 11% decrease from 2013.

Charleston: 96 daily *arrivals* - a 4% increase from 2014 and an 8% decrease from 2013.

Strip: 45 daily *touch and go's* - a 72% increase from 2014 and a 32% increase from 2013.

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

¹⁴ See footnote #1.

¹⁵ See footnote #1.

¹⁶ See footnote #1.

¹⁷ See footnote #1.

¹⁸ See footnote #1.

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

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

Large: *Large* air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 65% of the daily traffic.

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

Small: *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 9% 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 20% 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 2015, 3% departed to the *west* (from LAS's primary departure runways). This figure was 64% in 2014 and 76% in 2013.

Secondary: In 2015, 23% departed to the *south* (from LAS's secondary departure runways). This figure was 2% in 2014 and 3% in 2013.

Alternate 1: In 2015, 61% departed to the *north* (from LAS's alternate departure runways). This figure was 23% in 2014 and 12% in 2013.

Alternate 2: In 2015, 13% departed to the *east* (from LAS's alternate departure runways). This figure was 11% in 2014 and 9% 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 96% in 2014 and 95% in 2013. (See January 2015 synopsis for specific location of the SVHS gate.)

Peace: In 2015, due to an unusually low number of total operations, resulting from construction activities on Runway 07L/25R, only 55% 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 2014 and 97% in 2013. (See January 2015 synopsis for specific location of the Peace gate.)

- 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 97% in 2014 and 97% in 2013. (See January 2015 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2015, 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 81% in 2014 and 84% in 2013. (See January 2015 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2015, 91% 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 2014 and 98% in 2013. (See January 2015 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2015, 79% 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 2014 and 97% in 2013. (See January 2015 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2015, 86% 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 2014 and 99% in 2013. (See January 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 99% in 2014 and 99% in 2013. (See January 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 88% in 2014 and 85% in 2013. (See January 2015 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **typical** residential complaints, fleet mix, and gate compliance with the exception of the number of complaints tied to a single household, and northern runway use due to construction activities on Runway 07L/25R.

Other Notable Issues

Helicopter Operator Users Meeting: On March 19, 2015, 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 reviewed the successful use of a modified route to accommodate helicopter flights to and from the Las Vegas Motor Speedway for an annual NASCAR racing event. All 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 15, 2015

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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

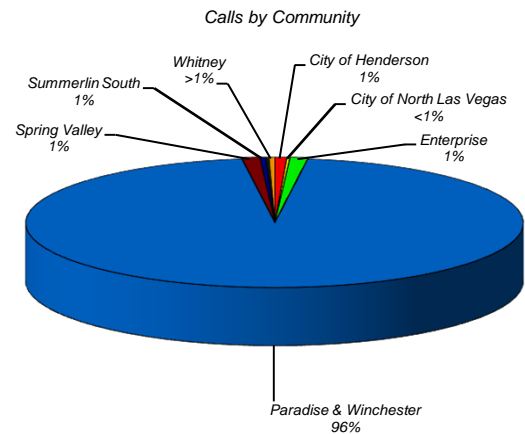
Commissioner Brown, Vice-Chair
Commissioner Giunchigliani
Commissioner Scow
Rosemary Vassiliadis
Harry Waters
Brian McMahon
E. Lee Thomson
Chris Jones
Barbara Bolton
Jeff Jacquart
Charlie Hall
Ben Czyzewski
Dennis Anderson
Tom Peterson
Mark Silverstein
Brenda Bell

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 Moorer (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* - January 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	18
City of Henderson	4	4	2	3
City of Las Vegas			2	3
City of North Las Vegas	1	1		
Enterprise	6	5	3	3
Lone Mountain				1
Paradise & Winchester	496	30	235	8
Spring Valley	6	6	12	10
Summerlin South	2	2		
Sunrise Manor	1	1		16
Whitney	2	1		1
Location unknown				
Overall Total	518	50	254	60



Difference between 2015 and 2014 Total Calls: 104%

Difference between 2015 and 2013 Total Calls: 763%

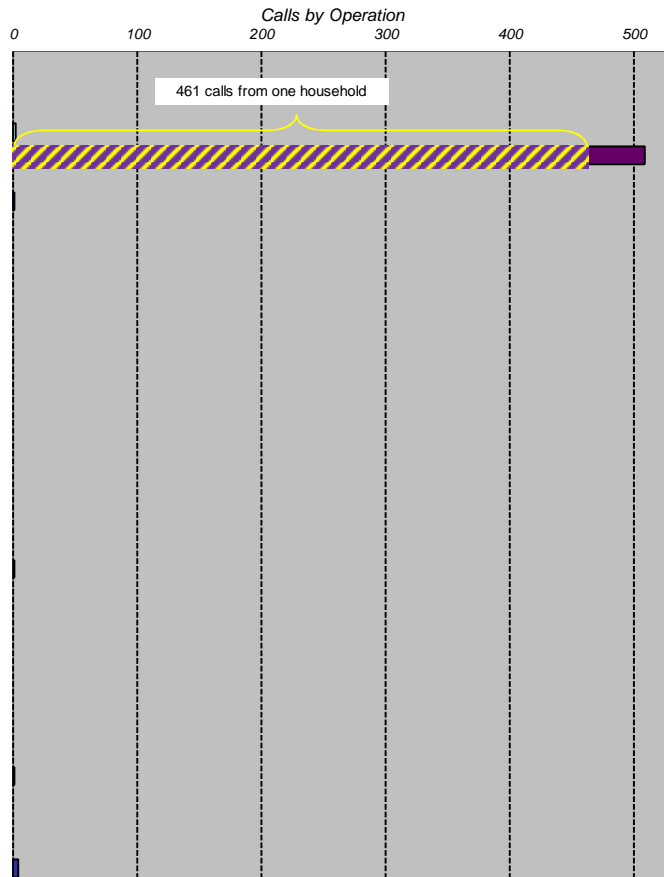
Average Number of Calls per Caller: 10.4

Most calls received from one household: 461

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

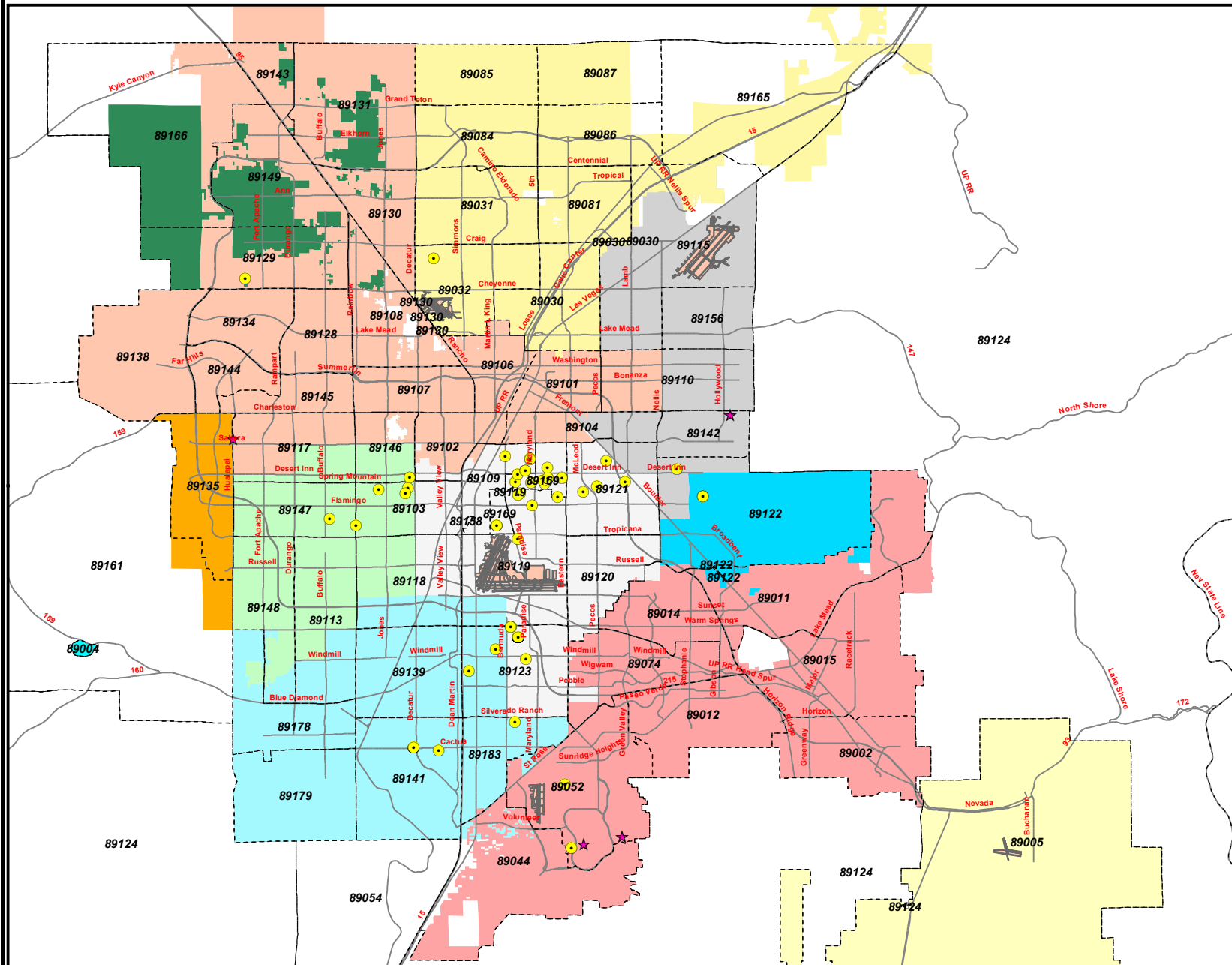
Exhibit 2: Noise Complaint Calls by Type of Operation - January 2015

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				1
LAS 19R/L Arrivals				1
LAS 25R/L Arrivals	2	0.4%		1
LAS 01R/L Departures	509	98.3%	118	18
LAS 07R/L Departures				1
LAS 19R/L Departures	1	0.2%		4
LAS 25R/L Departures			115	5
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	512	98.8%	233	30
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA	1	0.2%	2	1
VGT Other				
VGT Total	1	0.2%	2	1
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	0.2%	3	4
HND Other				
HND Total	1	0.2%	3	4
Helicopters**	4	0.8%	16	25
Overall Total	518	100%	254	60



** 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 - Jan 2015



Legend

Jan 2015
Total Complaints: 518

- Aircraft Complaints Received 514 Mapped 514
- ★ Helicopter Complaints Received 4 Mapped 4

- 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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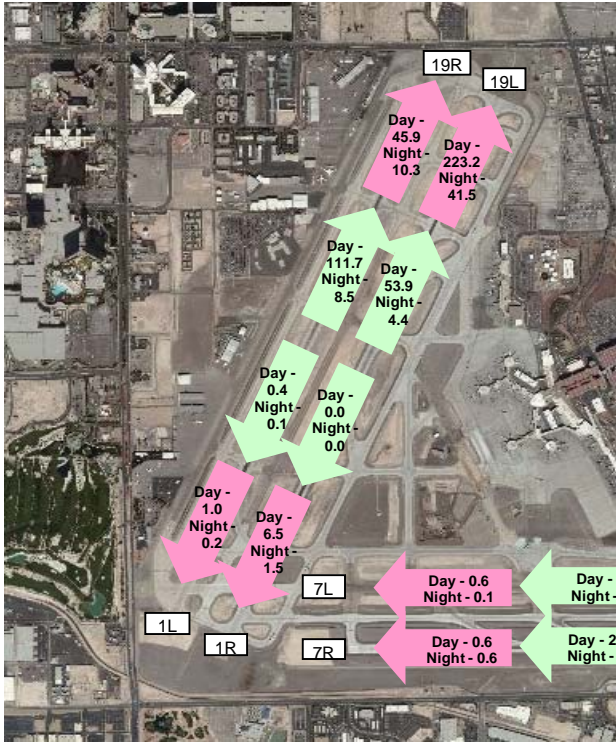


April 4, 2015
Note: This information is for display purposes only. No liability is assumed as to the accuracy of the data delineated hereon.



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

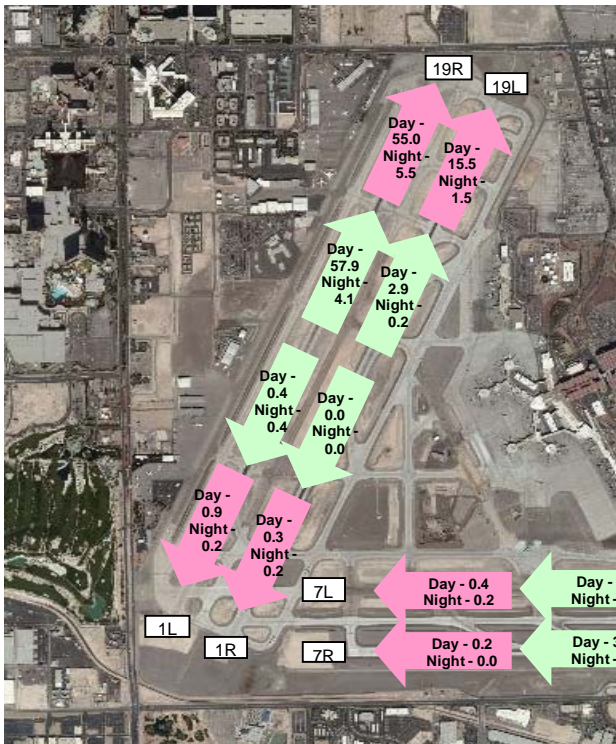


Year	2015		2014		2013	
Daytime Departures	303	85%	333	86%	329	87%
Nighttime Departures	55	15%	54	14%	49	13%
Total Departures	358	100%	387	100%	378	100%
Daytime Arrivals	389	89%	395	90%	387	91%
Nighttime Arrivals	48	11%	45	10%	40	9%
Total Arrivals	437	100%	441	100%	426	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-8%	-9%	1%
Depts. 2015 vs 2013	-5%	-8%	11%
Arrivals 2015 vs 2014	-1%	-2%	6%
Arrivals 2015 vs 2013	2%	1%	20%

* 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 2015

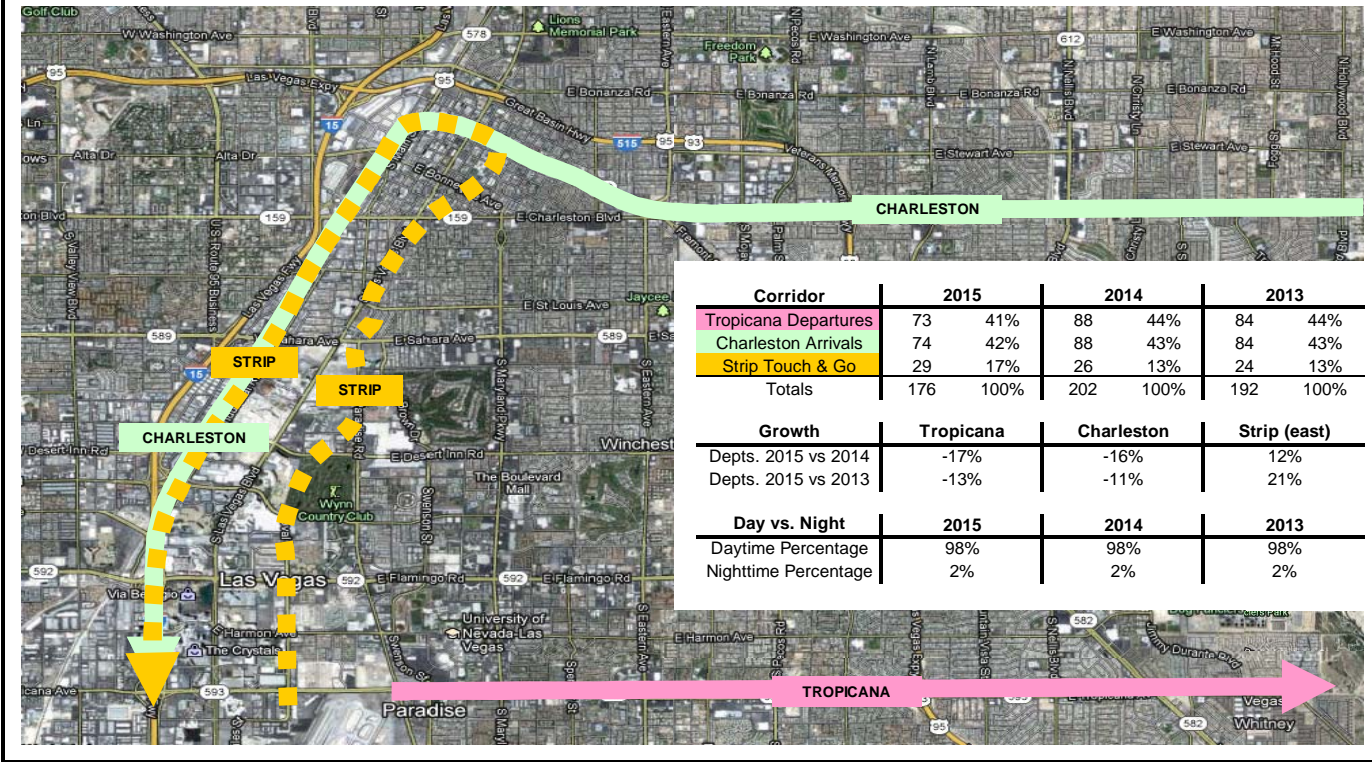


Year	2015		2014		2013	
Daytime Departures	77	91%	83	89%	79	92%
Nighttime Departures	8	9%	10	11%	7	8%
Total Departures	85	100%	92	100%	86	100%
Daytime Arrivals	99	95%	100	94%	94	94%
Nighttime Arrivals	6	5%	7	6%	6	6%
Total Arrivals	105	100%	107	100%	100	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-8%	-6%	-23%
Depts. 2015 vs 2013	-1%	-2%	10%
Arrivals 2015 vs 2014	-2%	-1%	-17%
Arrivals 2015 vs 2013	4%	5%	-3%

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

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - January 2015

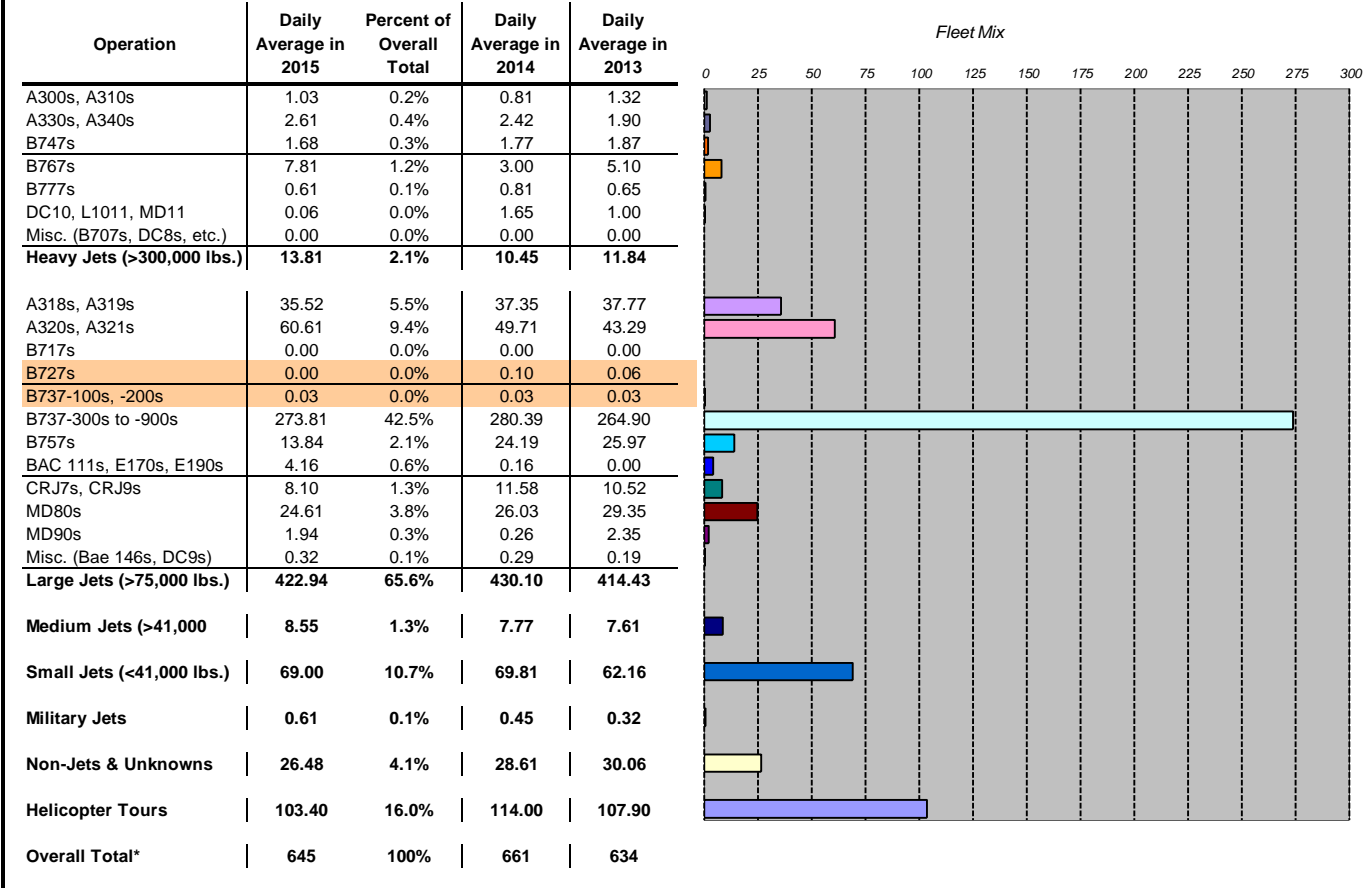


Corridor	2015	2014	2013
Tropicana Departures	73 41%	88 44%	84 44%
Charleston Arrivals	74 42%	88 43%	84 43%
Strip Touch & Go	29 17%	26 13%	24 13%
Totals	176 100%	202 100%	192 100%

Growth	Tropicana	Charleston	Strip (east)
Depts. 2015 vs 2014	-17%	-16%	12%
Depts. 2015 vs 2013	-13%	-11%	21%

Day vs. Night	2015	2014	2013
Daytime Percentage	98%	98%	98%
Nighttime Percentage	2%	2%	2%

Exhibit 7: LAS Aircraft Arrival Fleet Mix* - January 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* - January 2015 to 2013

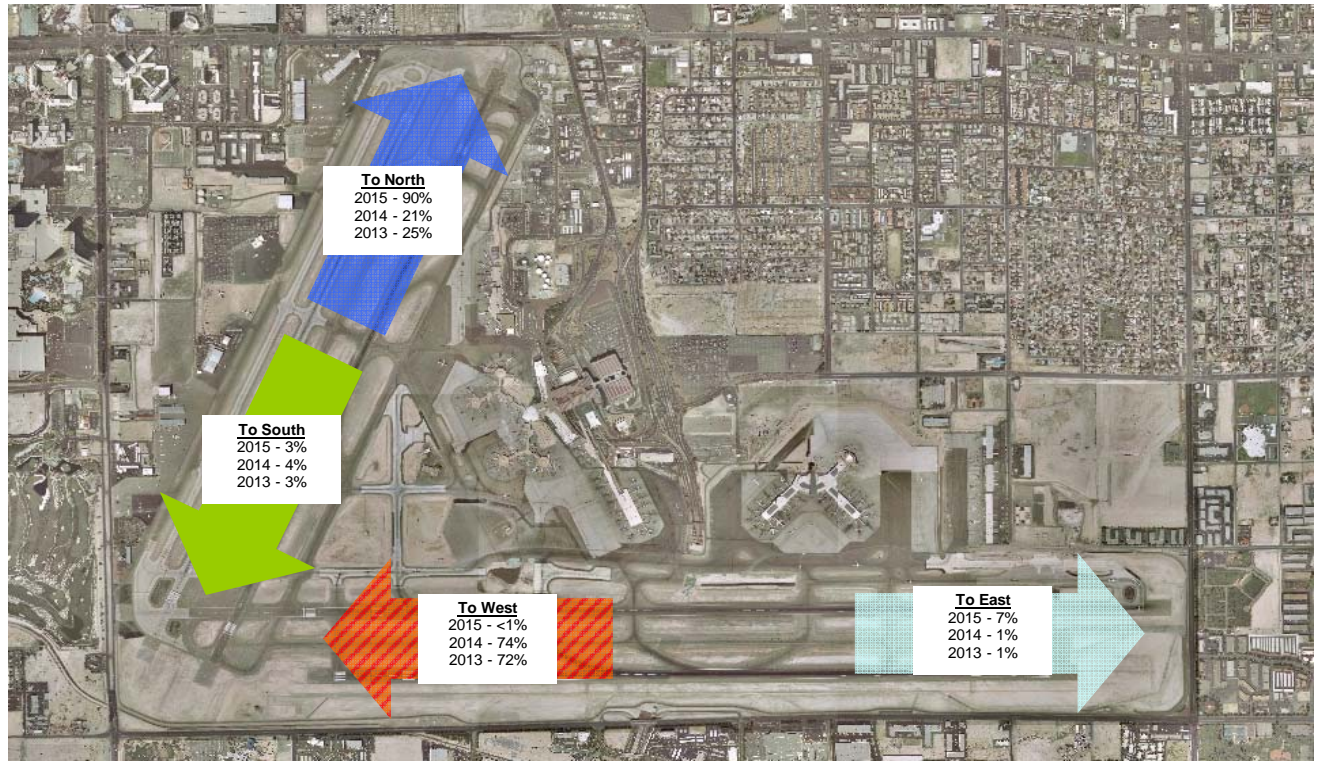
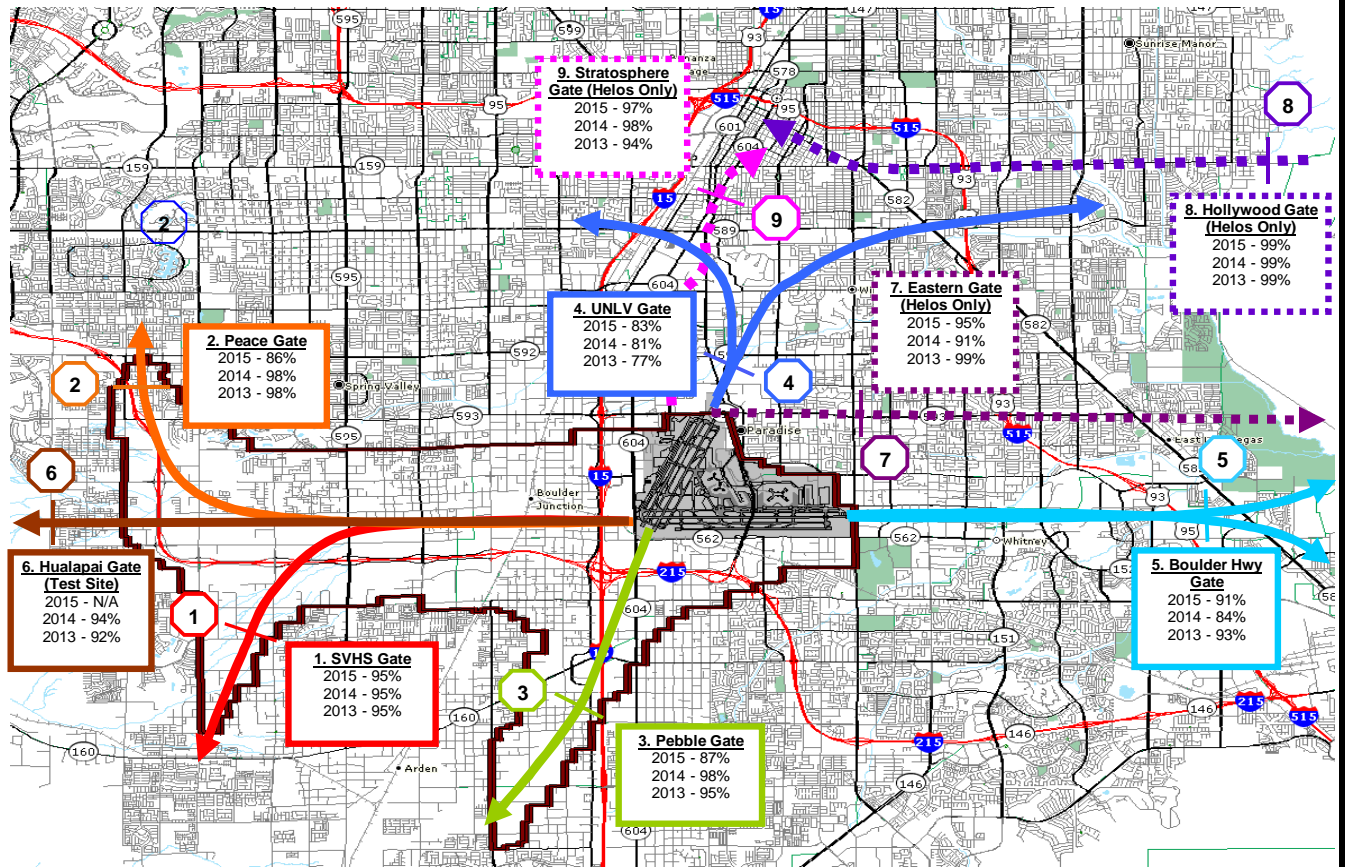


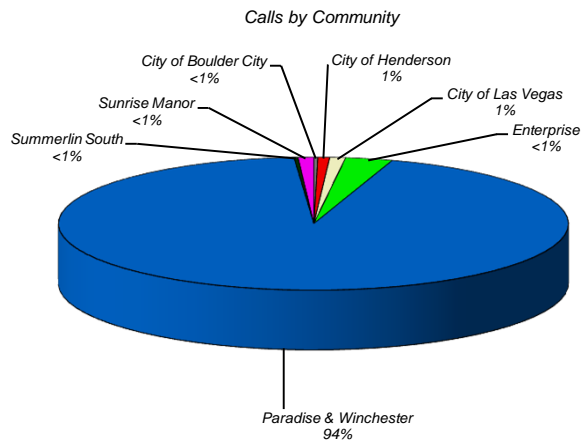
Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - January 2015



* 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* - February 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	1	1		
City of Henderson	3	2	4	2
City of Las Vegas	4	3	4	
City of North Las Vegas			1	
Enterprise	12	7	3	2
Lone Mountain				1
Paradise & Winchester	376	12	844	9
Spring Valley			4	4
Summerlin South	1	1		
Sunrise Manor	4	3	2	8
Whitney				1
Location unknown				
Overall Total	401	29	862	27



Difference between 2015 and 2014 Total Calls: -53%

Difference between 2015 and 2013 Total Calls: 1,385%

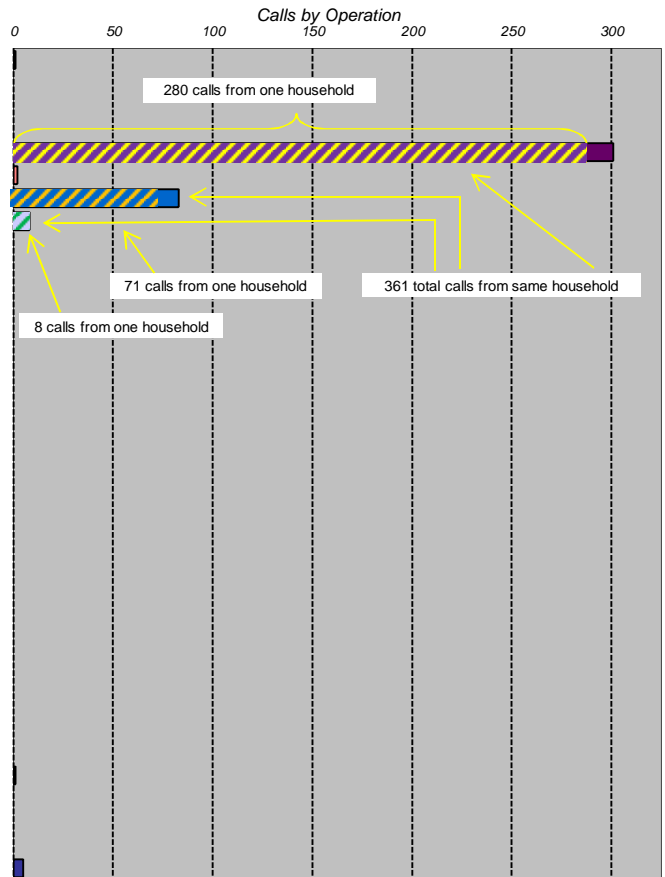
Average Number of Calls per Caller: 13.8

Most calls received from one household: 361

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

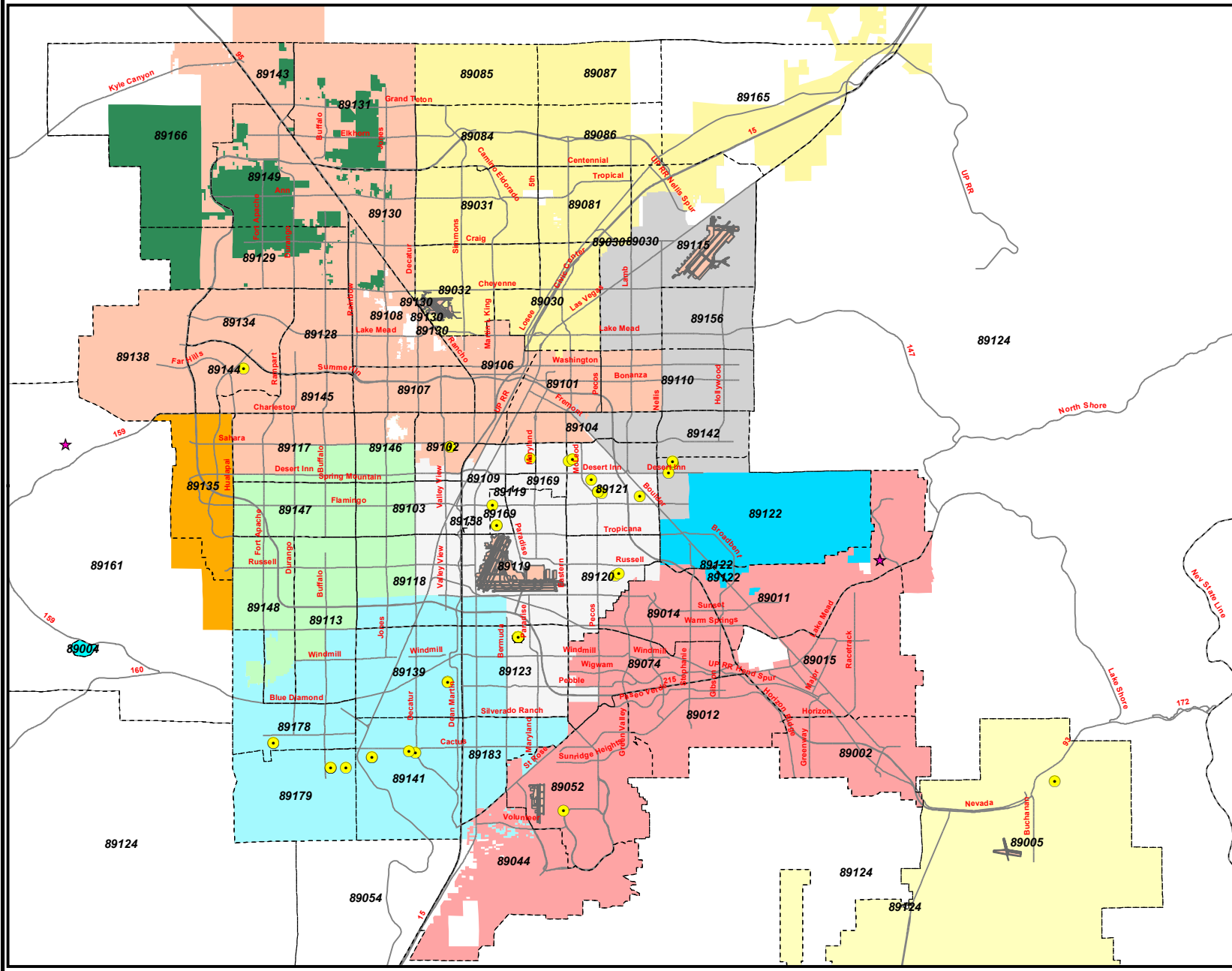
Exhibit 2: Noise Complaint Calls by Type of Operation - February 2015

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	0.2%		
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals				
LAS 01R/L Departures	301	75.1%	370	5
LAS 07R/L Departures	2	0.5%	2	4
LAS 19R/L Departures	83	20.7%	1	
LAS 25R/L Departures	8	2.0%	480	3
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	395	98.5%	853	12
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%	2	0
VGT Other				
VGT Total	0	0.0%	2	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	0.2%	2	0
HND Other				
HND Total	1	0.2%	2	0
Helicopters**	5	1.2%	5	15
Overall Total	401	100%	862	27



** 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 - Feb 2015



Legend

Feb 2015
Total Complaints: 401

- Aircraft Complaints Received 396 Mapped 395
- 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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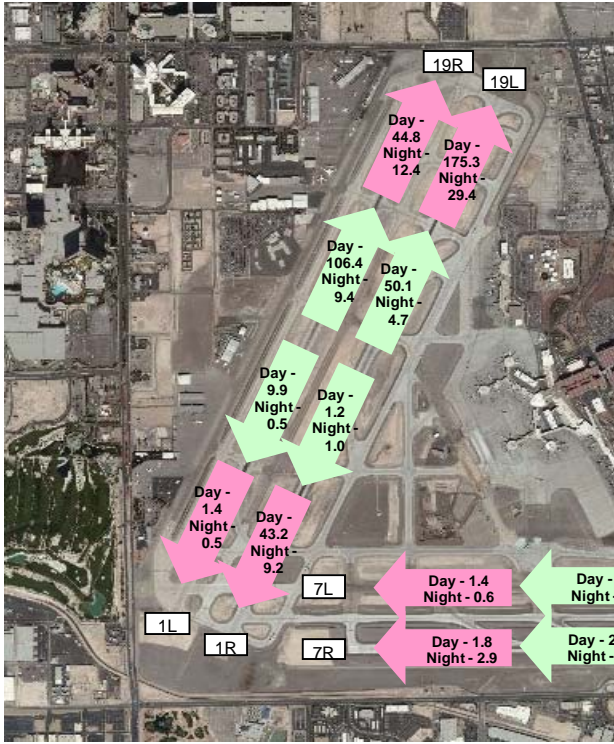
Geographic Information Systems

April 4, 2015

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 2015

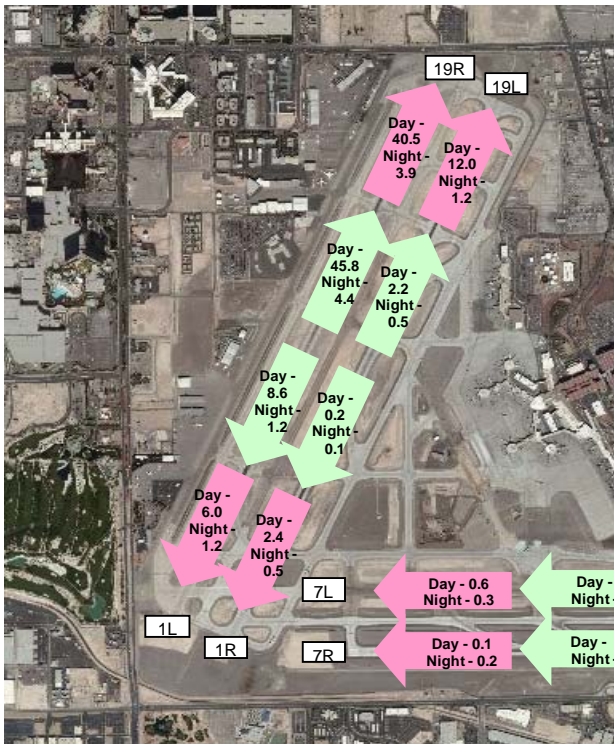


Year	2015		2014		2013	
Daytime Departures	305	84%	335	86%	329	85%
Nighttime Departures	59	16%	57	14%	58	15%
Total Departures	364	100%	392	100%	387	100%
Daytime Arrivals	400	88%	393	89%	388	89%
Nighttime Arrivals	53	12%	50	11%	46	11%
Total Arrivals	452	100%	442	100%	434	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-7%	-9%	4%
Depts. 2015 vs 2013	-6%	-7%	2%
Arrivals 2015 vs 2014	2%	2%	6%
Arrivals 2015 vs 2013	4%	3%	14%

* 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 2015



Year	2015		2014		2013	
Daytime Departures	69	90%	81	91%	74	92%
Nighttime Departures	7	10%	8	9%	7	8%
Total Departures	76	100%	89	100%	81	100%
Daytime Arrivals	83	92%	93	93%	88	92%
Nighttime Arrivals	7	8%	7	7%	7	8%
Total Arrivals	90	100%	100	100%	95	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-15%	-15%	-12%
Depts. 2015 vs 2013	-6%	-8%	9%
Arrivals 2015 vs 2014	-9%	-11%	12%
Arrivals 2015 vs 2013	-5%	-6%	3%

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

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - February 2015

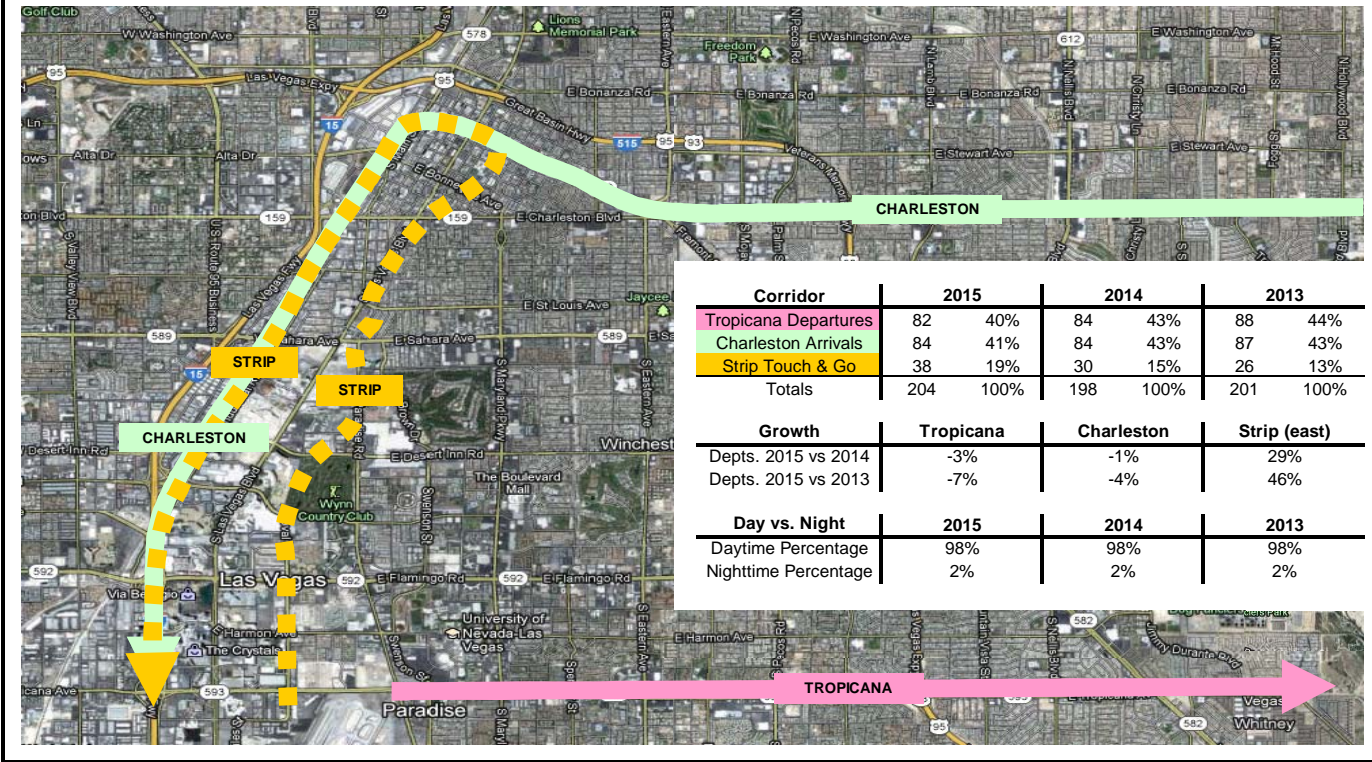
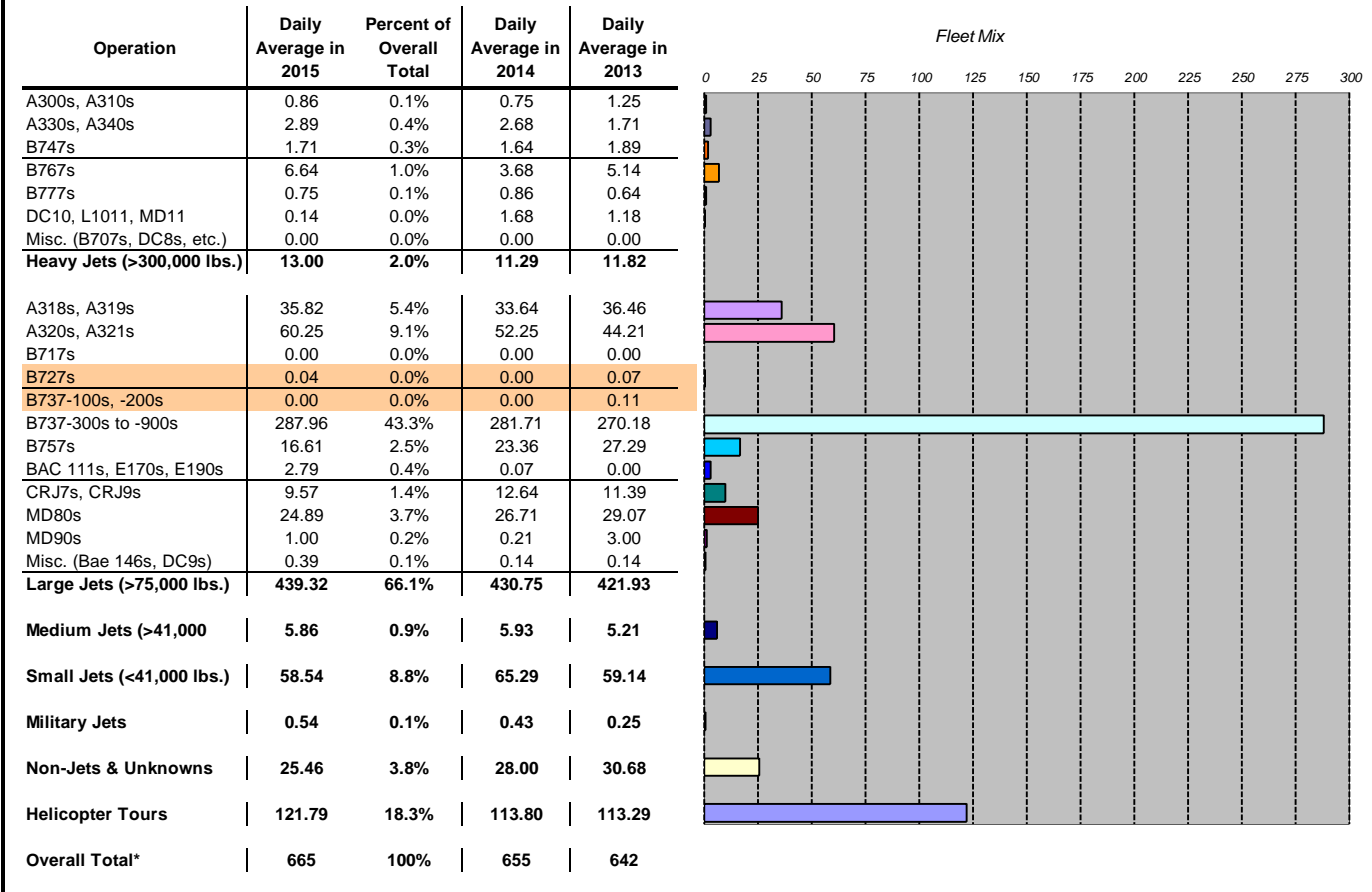


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - February 2015



* 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* - February 2015 to 2013

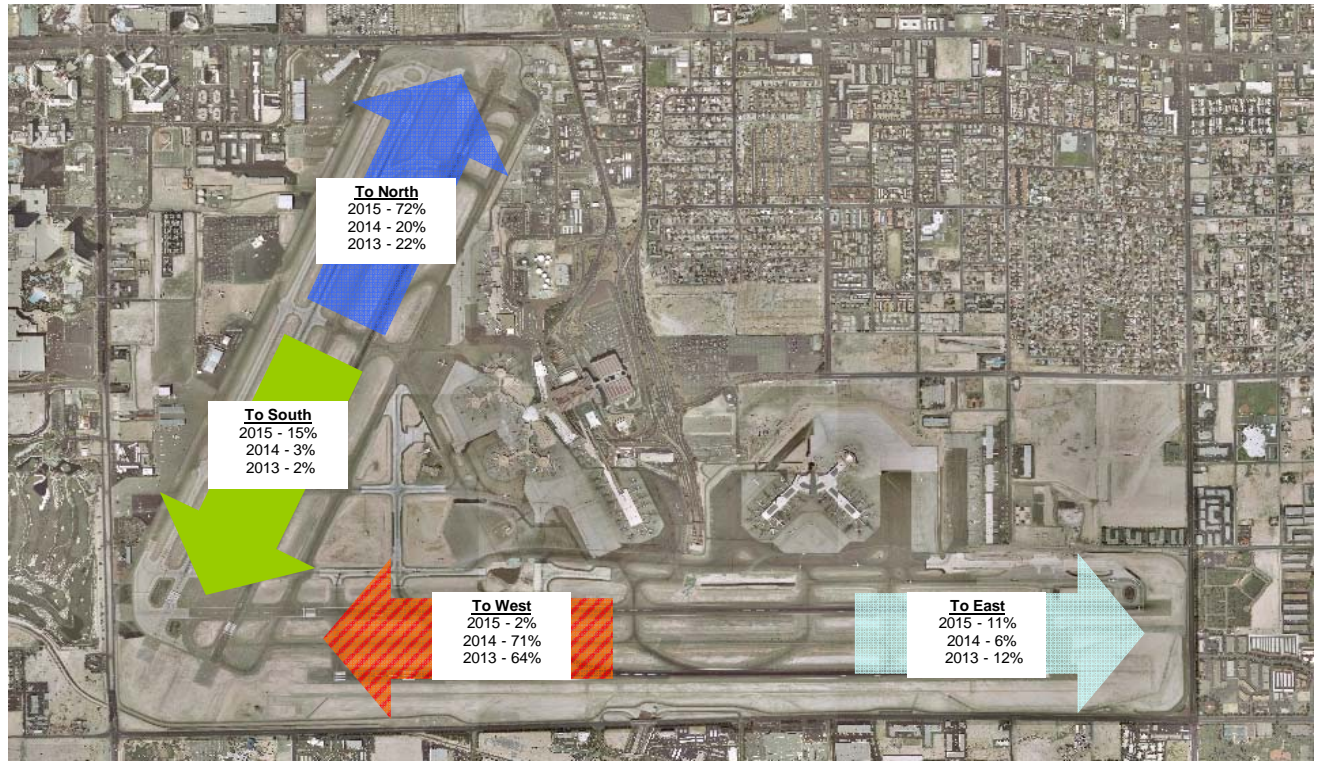
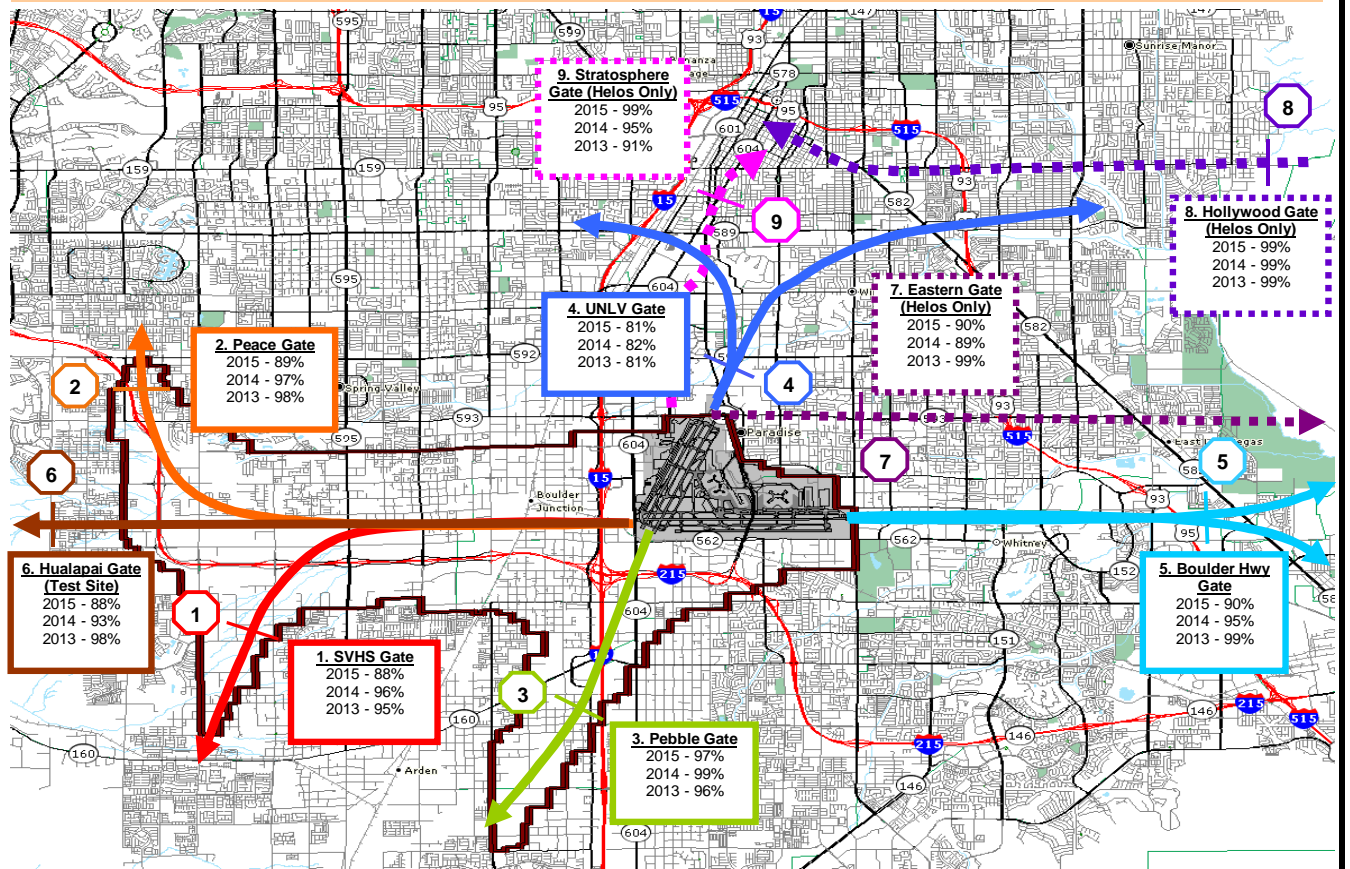


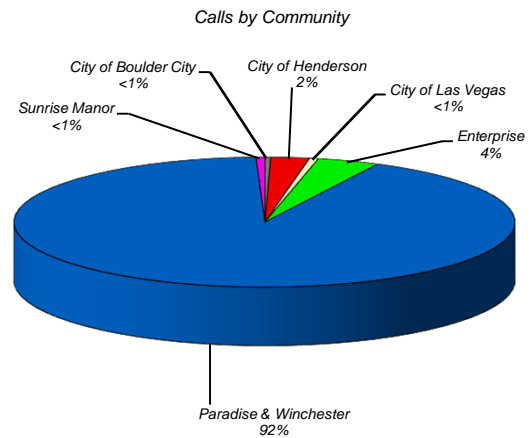
Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - February 2015



* 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* - March 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	1	7	6
City of Henderson	13	12	1	7
City of Las Vegas	3	3		
City of North Las Vegas				
Enterprise	21	16	6	
Lone Mountain				2
Paradise & Winchester	482	13	828	5
Spring Valley			21	3
Summerlin South				5
Sunrise Manor	3	3	1	13
Whitney				
Location unknown				
Overall Total	524	48	864	41



Difference between 2015 and 2014 Total Calls: -39%

Difference between 2015 and 2013 Total Calls: 1,178%

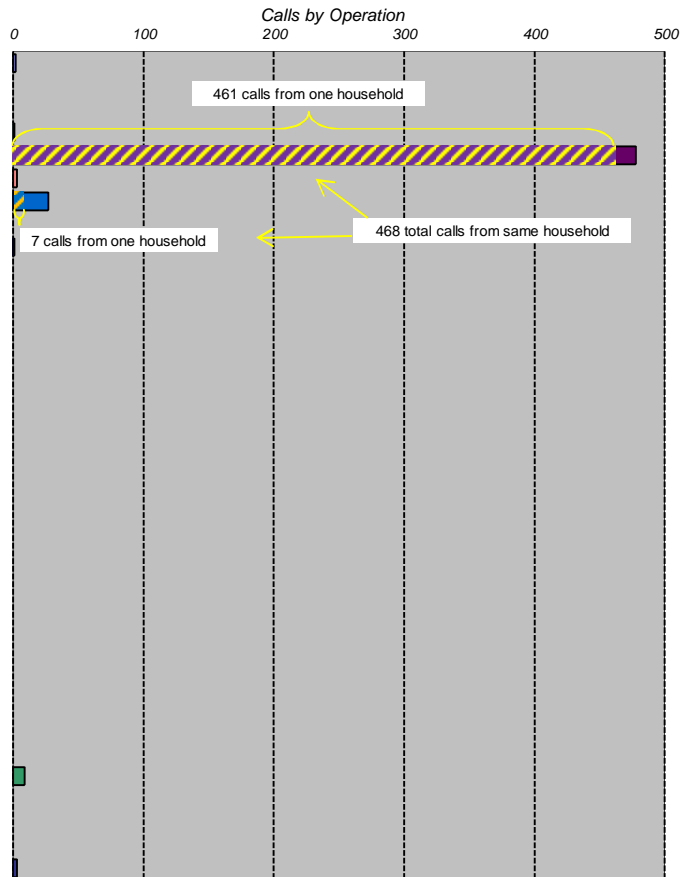
Average Number of Calls per Caller: 10.9

Most calls received from one household: 468

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

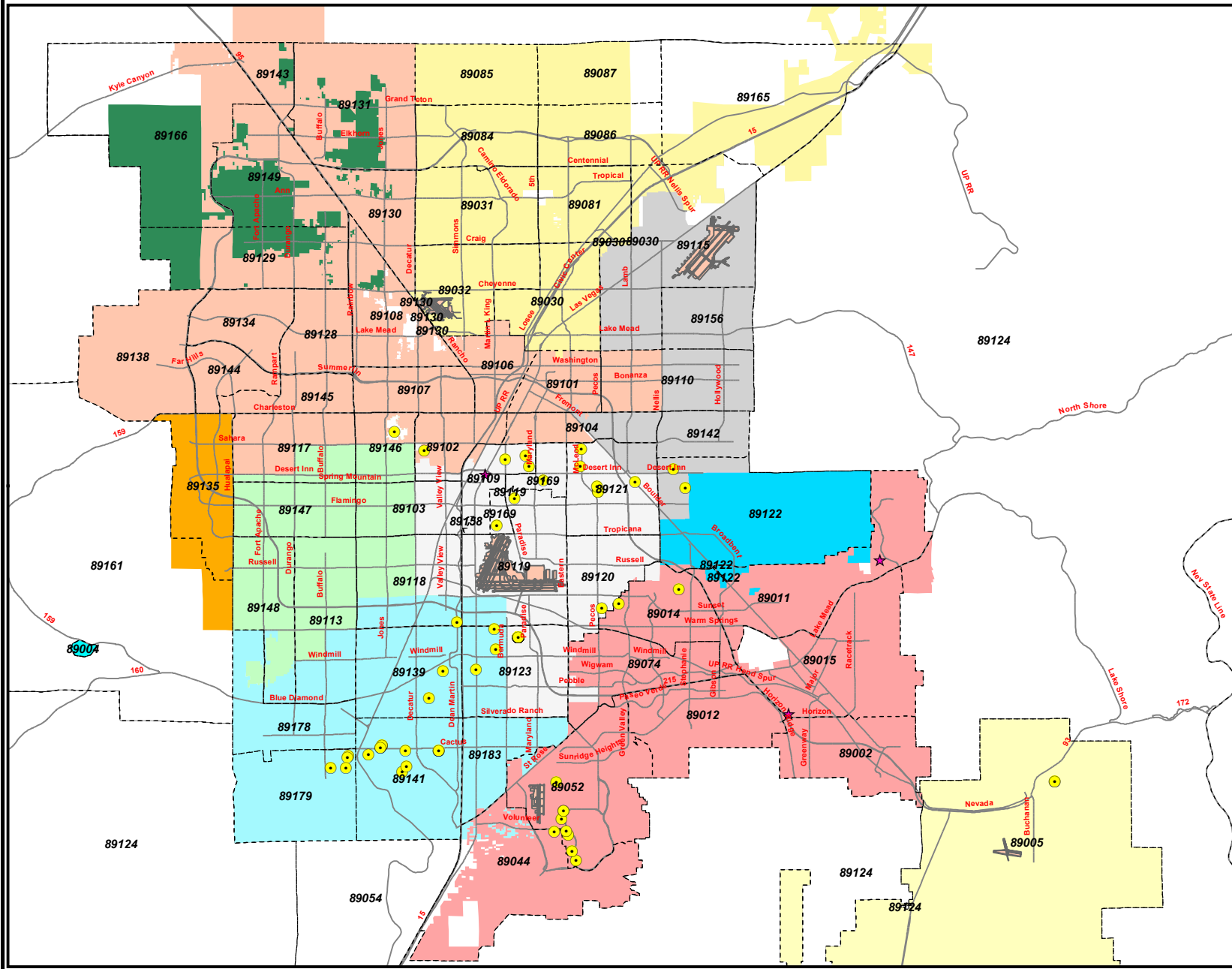
Exhibit 2: Noise Complaint Calls by Type of Operation - March 2015

Operation	No. of Calls in 2015	Percent of Overall Total	No. of Calls in 2014	No. of Calls in 2013
LAS 01R/L Arrivals	2	0.4%		
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	1	0.2%		
LAS 01R/L Departures	478	91.2%	605	8
LAS 07R/L Departures	3	0.6%	1	
LAS 19R/L Departures	27	0.6%	4	
LAS 25R/L Departures			248	6
LAS Run-ups	1	0.2%		
LAS GA				
LAS Other				
LAS Total	512	97.7%	858	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				
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	9	1.7%	4	3
HND Other				
HND Total	9	1.7%	4	3
Helicopters**	3	0.6%	2	24
Overall Total	524	100%	864	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 - Mar 2015



Legend

Mar 2015
Total Complaints: 524

- Aircraft Complaints Received 521 Mapped 521
- Helicopter Complaints Received 3 Mapped 3

- 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

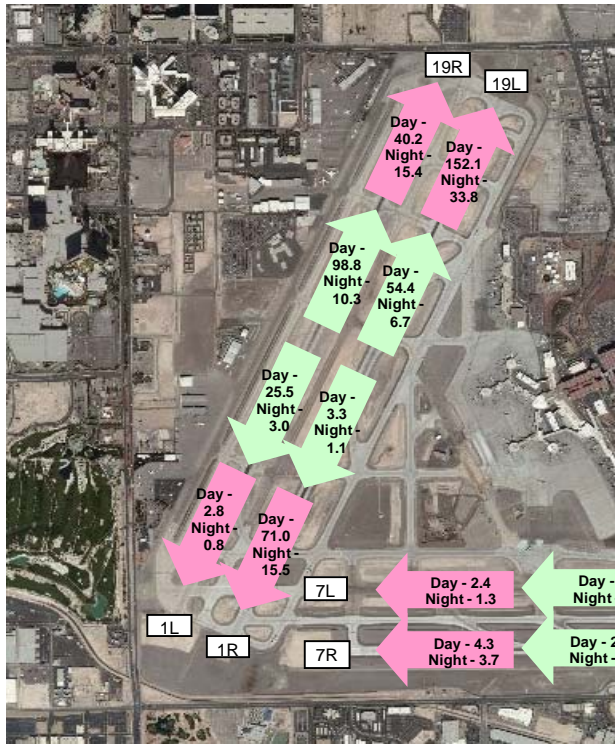
Geographic Information Systems

April 4, 2015

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* - March 2015



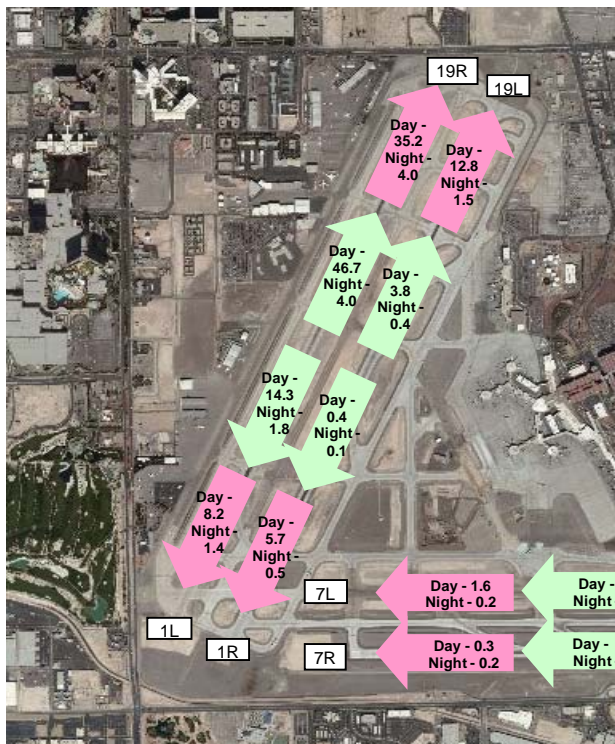
Year	2015		2014		2013	
Daytime Departures	321	81%	348	83%	344	82%
Nighttime Departures	74	19%	74	17%	74	18%
Total Departures	395	100%	422	100%	417	100%

Daytime Arrivals	412	86%	412	87%	408	88%
Nighttime Arrivals	67	14%	62	13%	57	12%
Total Arrivals	479	100%	474	100%	465	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-6%	-8%	0%
Depts. 2015 vs 2013	-5%	-7%	0%
Arrivals 2015 vs 2014	1%	0%	7%
Arrivals 2015 vs 2013	3%	1%	17%

* 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** - March 2015



Year	2015		2014		2013	
Daytime Departures	71	90%	82	90%	73	90%
Nighttime Departures	8	10%	10	10%	8	10%
Total Departures	79	100%	92	100%	81	100%

Daytime Arrivals	89	92%	98	94%	87	94%
Nighttime Arrivals	7	8%	6	6%	6	6%
Total Arrivals	96	100%	105	100%	93	100%

Growth	Overall	Daytime	Nighttime
Depts. 2015 vs 2014	-14%	-14%	-17%
Depts. 2015 vs 2013	-3%	-3%	1%
Arrivals 2015 vs 2014	-8%	-10%	16%
Arrivals 2015 vs 2013	3%	2%	25%

** 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 - March 2015

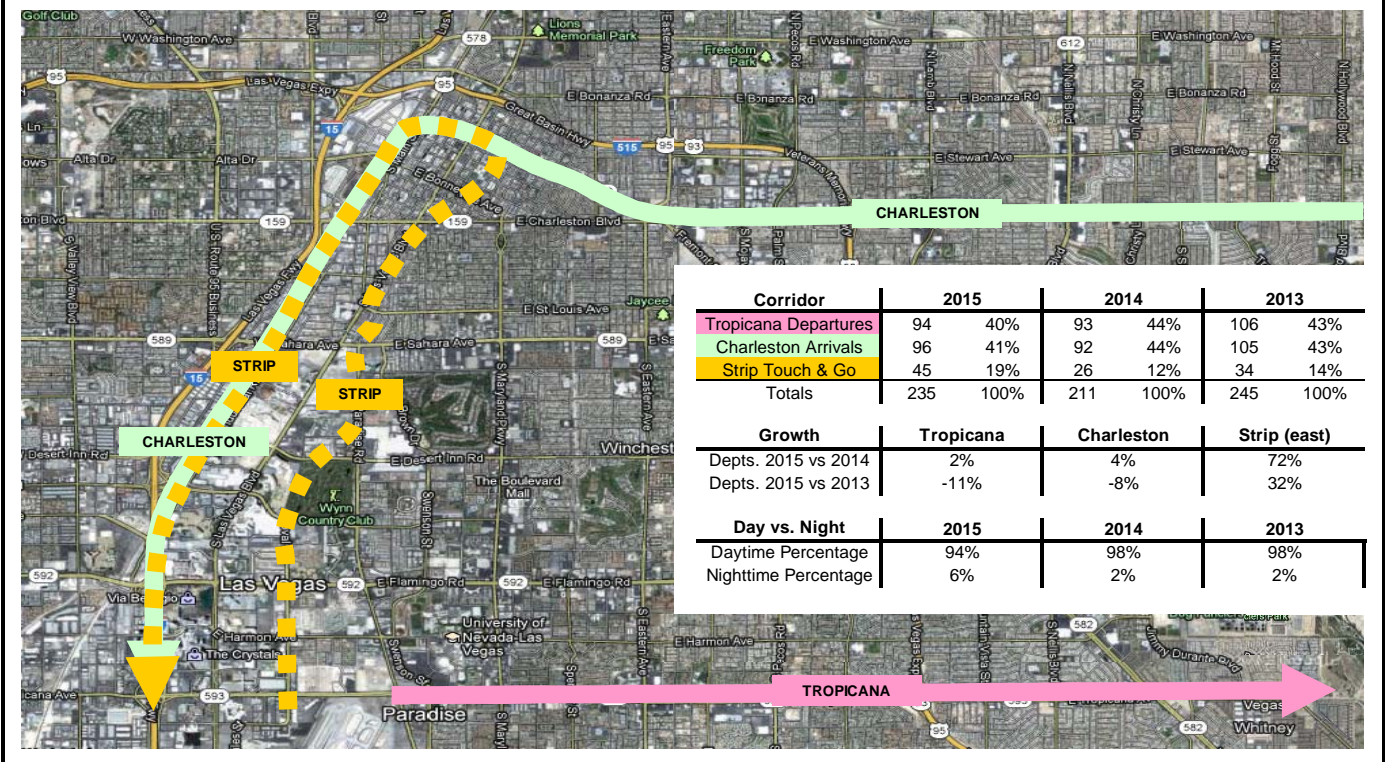
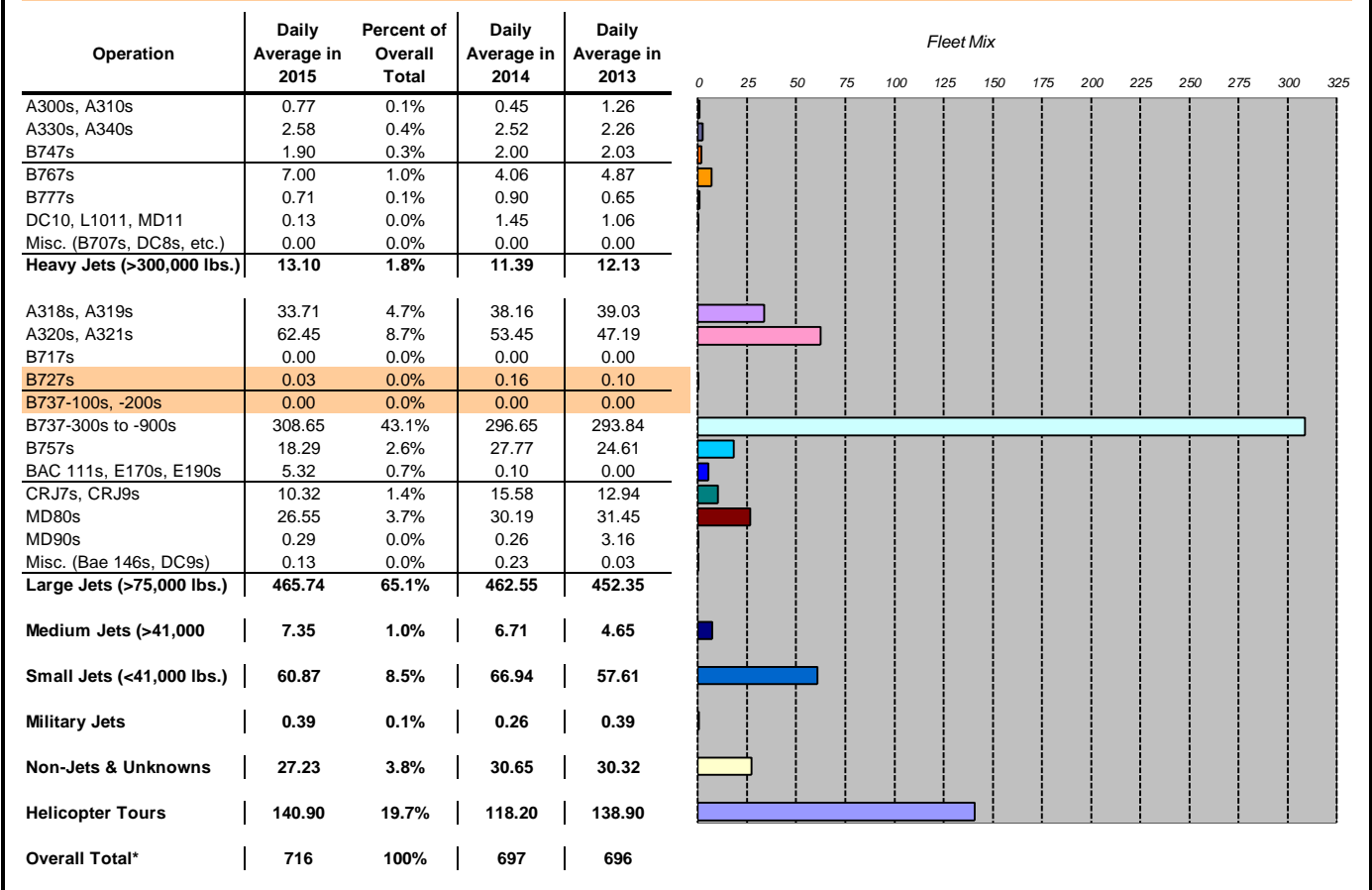


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - March 2015



* 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* - March 2015 to 2013

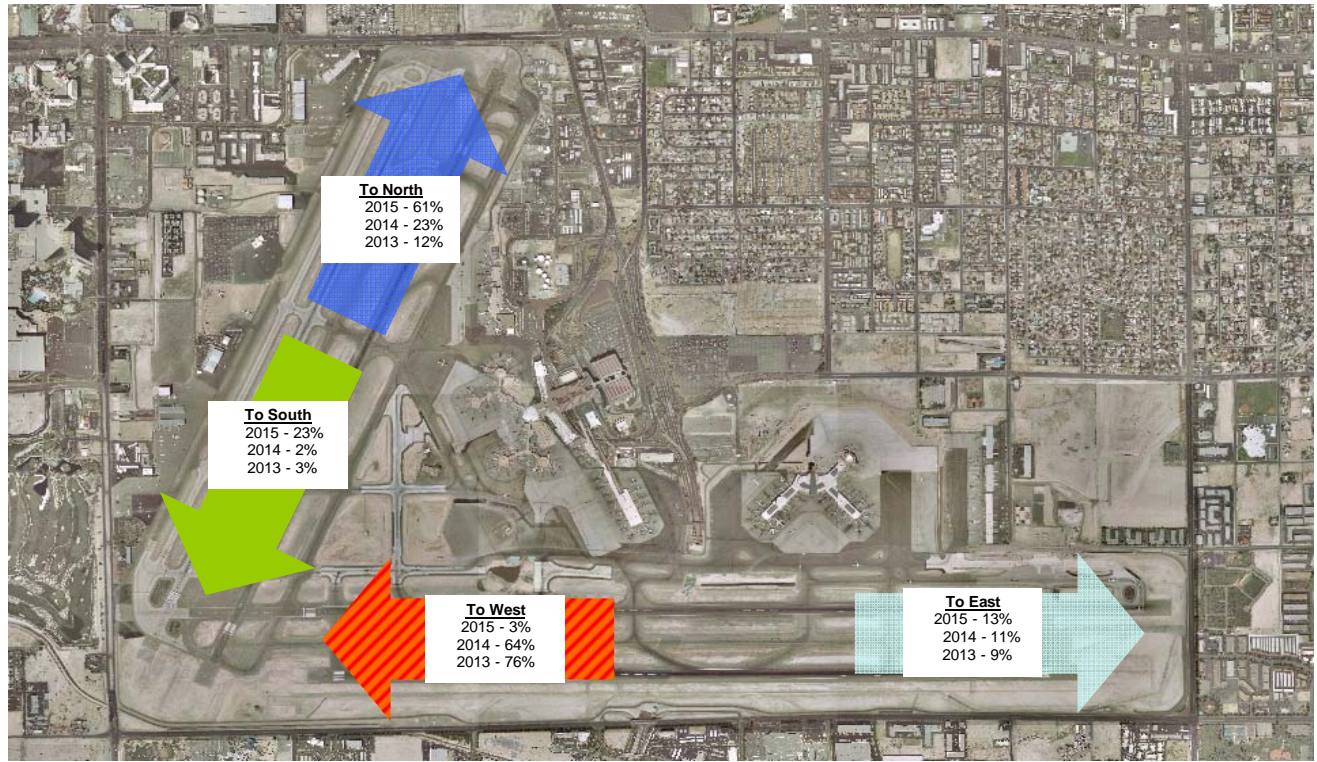
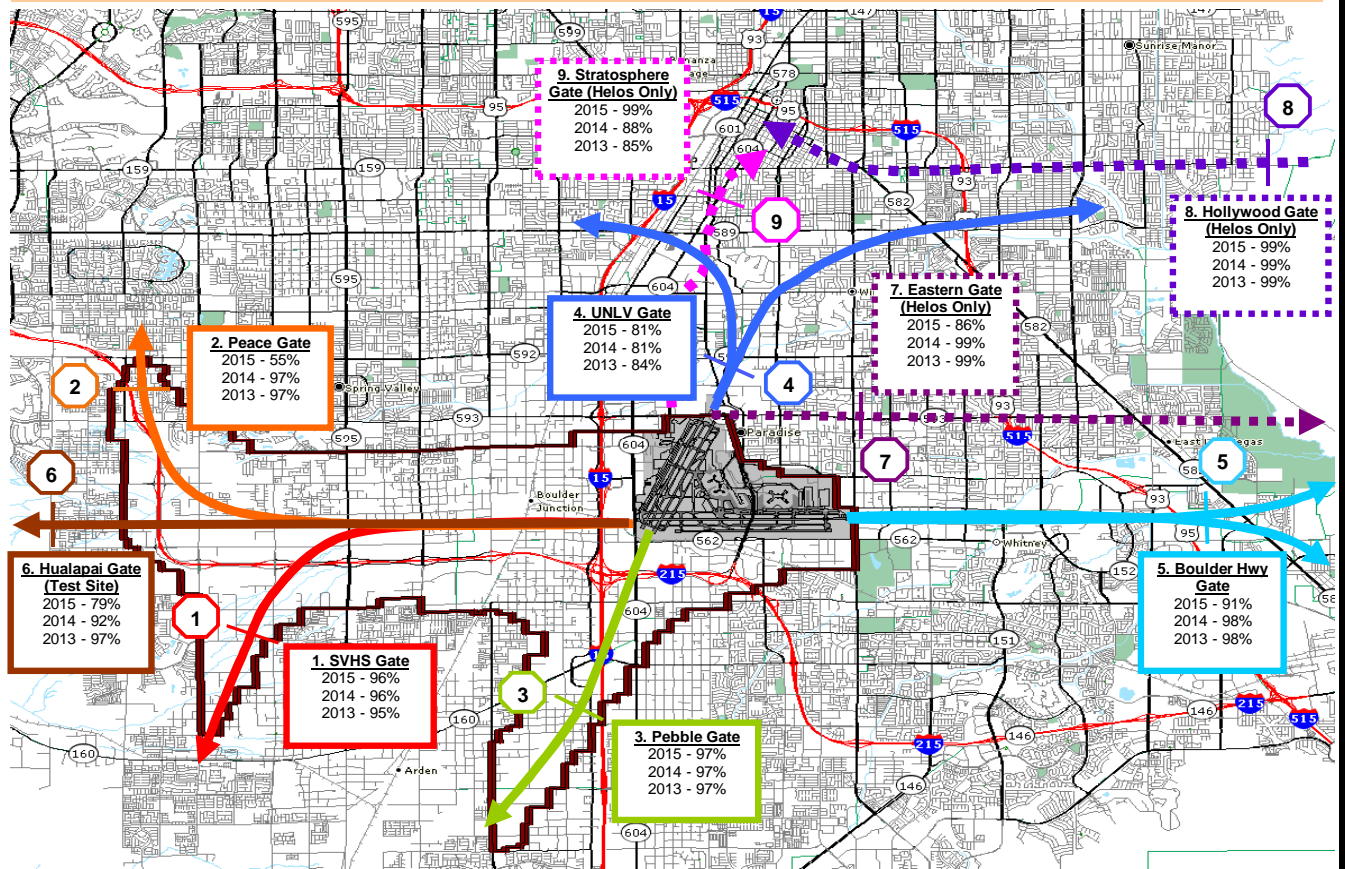


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - March 2015



* 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.