

MEMORANDUM

DEPARTMENT OF AVIATION

ROSEMARY A. VASSILIADIS
Director

HARRY WATERS
Deputy Director

TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER

SUBJECT: JULY THROUGH SEPTEMBER 2013 NOISE COMPLAINT REPORTS

DATE: OCTOBER 18, 2013

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for July through September 2013. 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. **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 departure corridors, or impose penalties to pilots who opt not to comply with preferred procedures. "Compliance gates" are located along these historical/fly-quietly departure routes. If all aircraft flew with advanced navigational technologies and operated under Required Navigational Precision (RNP) procedures, then it could be expected that up to 95% of all aircraft would be within 0.3 nautical miles (NM) of a fly-over point. Therefore, 0.3 NM is the threshold for compliance for large air carrier aircraft. The compliance threshold for helicopters is 500 feet.

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

Monthly Noise Complaint Summaries

July 2013: 18 total complaints - a 68% decrease from 2012 and a 38% increase from 2011. On average, each caller (or household) issued 1.6 calls. The most calls received from one household totaled 4.

Calls by Community - (Exhibits 1 and 3)

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

Minority (between 10% and 50%): The **Paradise and Winchester** communities issued 7 calls (39%). These communities are typically impacted by aircraft departing to the north (from Runway 01R and Runway 01L) and aircraft arriving from the north (into Runways 19R and 19L).

The **Enterprise** community issued 5 calls (28%). This community is typically impacted by aircraft departing to the south (from Runway 19L and Runway 19R).

The **City of Henderson** community issued 2 calls (11%). This community is typically impacted by aircraft departing to the east (from Runway 07R and Runway 07L).

The **City of Las Vegas** community issued 2 calls (11%). This community is typically impacted by aircraft departing to the west (from Runway 25R and Runway 25L).

Repeat Caller Impact: One household issued 22% (4 calls) of all the calls received in July 2013.

Calls by Operation - (Exhibit 2)

LAS: 67% of the total calls were due to **LAS** fixed-wing operations.
▪ 33% were due to departures to the east from Runways 07L and 07R.

VGT: 11% of the total calls were due to **VGT** fixed-wing operations.

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

Helos: 17% of the total calls were due to **helicopter** operations.

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

Overall: 427 daily *departures*¹ – a 5% decrease from 2012 and 14% decrease from 2011.
▪ 70% of departures were to the west, 25% east, 4% north, and 1% south.
470 daily *arrivals* – a 2% decrease from 2012 and 5% decrease from 2011.
▪ 64% of arrivals were from the east, 20% north, 9% west, and 7% south.

Daytime: 343 daily *departures*² – a 7% decrease from 2012 and an 18% decrease from 2011.
▪ 66% of departures were to the west, 30% east, 4% north, and 1% south.
403 daily *arrivals* – a 3% decrease from 2012 and a 6% decrease from 2011.
▪ 62% of arrivals were from the east, 21% north, 10% west, and 7% 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.

Nighttime: 85 daily *departures*³ – a 5% increase from 2012 and a 6% increase from 2011.
▪ 84% of departures were to the west, 7% east, 5% north, and 3% south.
67 daily *arrivals* – a 4% increase from 2012 and a 1% decrease from 2011.
▪ 79% of arrivals were from the east, 12% north, 7% south, and 1% west.

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

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

Overall: 65 daily *departures*⁴ – an 11% decrease from 2012 and 16% decrease from 2011.
▪ 44% of departures were to the west, 27% south, 25% east, and 4% north.
76 daily *arrivals* – a 9% decrease from 2012 and 7% decrease from 2011.
▪ 72% of arrivals were from the north, 11% west, 10% east, and 7% south.

Daytime: 56 daily *departures*⁵ – a 14% decrease from 2012 and a 20% decrease from 2011.
▪ 45% of departures were to the west, 28% east, 24% south, and 3% north.
70 daily *arrivals* – a 9% decrease from 2012 and an 8% decrease from 2011.
▪ 72% of arrivals were from the north, 11% west, 10% east, and 7% south.

Nighttime: 9 daily *departures*⁶ – a 15% increase from 2012 and a 13% increase from 2011.
▪ 48% of departures were to the south, 38% west, 8% north, and 6% east.
6 daily *arrivals* – a 10% decrease from 2012 and a 2% increase from 2011.
▪ 70% of arrivals were from the north, 15% east, 11% south, and 4% west.

Daytime vs. Nighttime: Approximately 86% of all *departures* and 92% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 131 daily *departures* - a 9% increase from 2012 and a 5% increase from 2011.

Charleston: 130 daily *arrivals* - a 10% increase from 2012 and a 6% increase from 2011.

Strip: 39 daily *touch and go's* - no change from 2012 and a 6% increase from 2011.

Daytime vs. Nighttime: Approximately 95% of all helicopter tour operations occurred during the daytime hours.

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

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

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

³ See footnote #1.

⁴ See footnote #1.

⁵ See footnote #1.

⁶ See footnote #1.

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

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

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

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

Helos: *Touring helicopters* accounted for 24% of the daily traffic.

Noisier Aircraft Types: The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for no operations per day.

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

Primary: In 2013, 70% departed to the *west* (from LAS's primary departure runways). This figure was 54% in 2012 and 73% in 2011.

Secondary: In 2013, 1% departed to the *south* (from LAS's secondary departure runways). This figure was 4% in 2012 and 5% in 2011.

Alternate 1: In 2013, 4% departed to the *north* (from LAS's alternate departure runways). This figure was 2% in 2012 and 1% in 2011.

Alternate 2: In 2013, 25% departed to the *east* (from LAS's alternate departure runways). This figure was 40% in 2012 and 21% in 2011.

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

SVHS: In 2013, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runway 25L or 25R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 94% in 2012 and 93% in 2011.

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 2013, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runway 25L or 25R and made a right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 95% in 2012 and 93% in 2011.

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 2013, 87% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runway 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 95% in 2012 and 95% in 2011.

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 2013, 82% of the large air carrier aircraft that departed to the north from Runway 01L or 01R were within 0.3 NM of the *UNLV sports complex*. This figure was 83% in 2012 and 79% in 2011.

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 2013, 97% of the large air carrier aircraft that departed to the north from Runway 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 97% in 2012 and 97% in 2011.

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 2013, 83% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runway 25L or 25R were within 0.3 NM of the extended runway centerline, near *Hualapai Way*. This figure was 96% in 2012 and not available in 2011.

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

Eastern: In 2013, 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 98% in 2012 and 96% in 2011.

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 2013, 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 2012 and 97% in 2011.

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 2013, 91% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 91% in 2012 and 88% in 2011.

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.

August 2012: 12 total complaints - a 76% decrease from 2012 and a 20% increase from 2011. On average, each caller (or household) issued 1.5 calls. The most calls received from one household totaled 3.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *Paradise and Winchester* communities issued 8 calls (67%). (See July 2013 synopsis of typical aircraft overflight impacts on this community.)

Minority (between 10% and 50%): The *City of Henderson* community issued 2 calls (17%). (See July 2013 synopsis of typical aircraft overflight impacts on this community.)

Repeat Caller Impact: (Not applicable.)

Calls by Operation - (Exhibit 2)

- LAS:** 50% of the total calls received were due to **LAS** fixed-wing operations.
- 25% were due to departures to the north from Runways 07L and 07R (66% from one household).
- VGT:** 0% of the total calls received were due to **VGT** fixed-wing operations.
- HND:** 0% of the total calls received were due to **HND** fixed-wing operations.
- Helis:** 50% of the total calls received were due to **helicopter** operations.

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

- Overall:** 422 daily *departures*⁷ – a 5% decrease from 2012 and 14% decrease from 2011.
- 82% of departures were to the west, 16% east, 2% south, and 1% north.
- 468 daily *arrivals* – a 3% decrease from 2012 and 4% decrease from 2011.
- 75% of arrivals were from the east, 17% north, 6% west, and 1% south.
- Daytime:** 351 daily *departures*⁸ – a 4% decrease from 2012 and 16% decrease from 2011.
- 80% of departures were to the west, 18% east, 1% south, and 1% north.
- 414 daily *arrivals* – a 1% decrease from 2012 and a 3% decrease from 2011.
- 74% of arrivals were from the east, 18% north, 7% west, and 1% south.
- Nighttime:** 71 daily *departures*⁹ – a 10% decrease from 2012 and 4% decrease from 2011.
- 90% of departures were to the west, 4% east, 3% north, and 3% south.
- 54 daily *arrivals* – a 13% decrease from 2012 and a 13% decrease from 2011.
- 87% of arrivals were from the east, 10% north, and 3% south.

Daytime vs. Nighttime: Approximately 83% 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:** 69 daily *departures*¹⁰ – a 2% decrease from 2012 and 14% decrease from 2011.
- 45% of departures were to the south, 35% west, 18% east, and 1% north.
- 81 daily *arrivals* – a 4% decrease from 2012 and a 4% decrease from 2011.
- 79% of arrivals were from the north, 10% east, 10% west, and 2% south.
- Daytime:** 61 daily *departures*¹¹ – a 4% decrease from 2012 and a 16% decrease from 2011.
- 43% of departures were to the south, 36% west, 20% east, and 1% north.
- 75 daily *arrivals* – a 3% decrease from 2012 and a 4% decrease from 2011.
- 78% of arrivals were from the north, 11% east, 10% west, and 1% south.

⁷ See footnote #1.

⁸ See footnote #1.

⁹ See footnote #1.

¹⁰ See footnote #1.

¹¹ See footnote #1.

Nighttime: 7 daily *departures*¹² – a 10% increase from 2012 and a 6% increase from 2011.
▪ 62% of departures were to the south, 34% west, 3% east, and 2% north.
6 daily *arrivals* – a 15% decrease from 2012 and a 5% increase from 2011.
▪ 84% of arrivals were from the north, 8% east, and 8% south.

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

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

Tropicana: 134 daily *departures* – an 8% increase from 2012 and no change from 2011.

Charleston: 132 daily *arrivals* - a 7% increase from 2012 and no change from 2011.

Strip: 40 daily *touch and go's* - a 4% increase from 2012 and a 7% increase from 2011.

Daytime vs. Nighttime: Approximately 96% of all helicopter tour operations occurred during the daytime hours.

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

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

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

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

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

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

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

Helos: **Touring helicopters** accounted for 24% of the daily traffic.

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

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

Primary: In 2013, 82% departed to the **west** (from LAS's primary departure runways). This figure was 72% in 2012 and 77% in 2011.

Secondary: In 2013, 2% departed to the **south** (from LAS's secondary departure runways). This figure was 4% in 2012 and 6% in 2011.

¹² See footnote #1.

Alternate 1: In 2013, 1% departed to the **north** (from LAS's alternate departure runways). This figure was 3% in 2012, and not available in 2011, due to construction activities rendering this runway unavailable.

Alternate 2: In 2013, 16% departed to the **east** (from LAS's alternate departure runways). This figure was 22% in 2012 and 18% in 2011.

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

SVHS: In 2013, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runway 25L or 25R and made a left-hand turn were within 0.3 NM of **Sierra Vista High School** (SVHS). This figure was 94% in 2012 and 95% in 2011. (See July 2013 synopsis for specific location of the SVHS gate.)

Peace: In 2013, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runway 25L or 25R and made a right-hand turn were within 0.3 NM of the intersection of **Peace Way & Summers Shade Street**. This figure was 95% in 2012 and 93% in 2011. (See July 2013 synopsis for specific location of the Peace gate.)

Pebble: In 2013, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runway 19L or 19R were within 0.3 NM of the intersection of **Pebble Road & Arville Street**. This figure was 96% in 2012 and 97% in 2011. (See July 2013 synopsis for specific location of the Pebble gate.)

UNLV: In 2013, 75% of the large air carrier aircraft that departed to the north from Runway 01L or 01R were within 0.3 NM of the **UNLV sports complex**. This figure was 72% in 2012, and not available in 2011, due to construction activities rendering this gate unusable. (See July 2013 synopsis for specific location of the UNLV gate.)

Boulder: In 2013, 97% of the large air carrier aircraft that departed to the north from Runway 07L or 07R were within 0.3 NM of the extended runway centerline, near **Boulder Highway**. This figure was 95% in 2012 and 95% in 2011. (See July 2013 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2013, 95% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runway 25L or 25R were within 0.3 NM of the extended runway centerline, near **Hualapai Way**. This figure was 92% in 2012, and not available in 2011. (See July 2013 synopsis for specific location of the Hualapai gate.)

Eastern: In 2013, 97% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of **Tropicana Avenue & Eastern Avenue**. This figure was 99% in 2012 and 97% in 2011. (See July 2013 synopsis for specific location of the Eastern gate.)

Hollywood: In 2013, 98% 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 2012 and 98% in 2011. (See July 2013 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2013, 84% 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 84% in 2012 and 86% in 2011. (See July 2013 synopsis for specific location of the Stratosphere gate.)

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

September 2013: 33 total complaints – a 52% decrease from 2012 and an 18% increase from 2011. On average, each caller (or household) issued 1.4 calls. The most calls received from one household totaled 5.

Calls by Community - (Exhibits 1 and 3)

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

Minority (between 10% and 50%): The *Paradise and Winchester* communities issued 10 calls (31%). (See July 2013 synopsis of typical aircraft overflight impacts on this community.)

The *City of Henderson* communities issued 6 calls (18%). (See July 2013 synopsis of typical aircraft overflight impacts on this community.)

The *City of Las Vegas* community issued 6 calls (18%). (See July 2013 synopsis of typical aircraft overflight impacts on this community.)

The *Spring Valley* community issued 5 calls (15%). This community is typically impacted by aircraft departing to the west (from Runway 25R and Runway 25L). This community is also impacted by aircraft departing to the north (from Runway 01R and Runway 01L) that turn left (to the west and south).

The *Enterprise* community issued 4 calls (12%). (See July 2013 synopsis of typical aircraft overflight impacts on this community.)

Repeat Caller Impact: (Not applicable.)

Calls by Operation - (Exhibit 2)

LAS: 82% of the total calls received were due to *LAS* fixed-wing operations.
▪ 27% were due to departures to the north from Runways 01L and 01R.

VGT: 3% of the total calls received were due to *VGT* fixed-wing operations.

HND: 9% of the total calls received were due to *HND* fixed-wing operations.

Helis: 6% of the total calls received were due to *helicopter* operations.

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

- Overall:** 425 daily *departures*¹³ – a 3% decrease from 2012 and a 13% decrease from 2011.
▪ 78% of departures were to the west, 11% east, 8% north, and 3% south.
469 daily *arrivals* – no change from 2012 and a 4% decrease from 2011.
▪ 76% of arrivals were from the east, 16% north, 4% south and 4% west.
- Daytime:** 369 daily *departures*¹⁴ – a 1% decrease from 2012 and 13% decrease from 2011.
▪ 76% of departures were to the west, 13% east, 9% north, and 2% south.
429 daily *arrivals* – a 2% increase from 2012 and 2% decrease from 2011.
▪ 75% of arrivals were from the east, 16% north, 5% west, and 4% south.
- Nighttime:** 56 daily *departures*¹⁵ – a 15% decrease from 2012 and 14% decrease from 2011.
▪ 89% of departures were to the west, 6% south, 4% north, and 2% east.
40 daily *arrivals* – an 18% decrease from 2012 and 22% decrease from 2011.
▪ 86% of arrivals were from the east, 12% north, and 2% south.

Daytime vs. Nighttime: Approximately 87% 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:** 80 daily *departures*¹⁶ – a 12% decrease from 2012 and a 12% decrease from 2011.
▪ 43% of departures were to the south, 30% west, 16% east, and 11% north.
91 daily *arrivals* – a 9% decrease from 2012 and a 4% decrease from 2011.
▪ 69% of arrivals were from the north, 18% east, 7% south, and 6% west.
- Daytime:** 72 daily *departures*¹⁷ – a 13% decrease from 2012 and a 13% decrease from 2011.
▪ 39% of departures were to the south, 31% west, 18% east, and 12% north.
84 daily *arrivals* – a 10% decrease from 2012 and a 4% decrease from 2011.
▪ 68% of arrivals were from the north, 18% east, 7% south, and 7% west.
- Nighttime:** 8 daily *departures*¹⁸ – a 1% increase from 2012 and a 1% increase from 2011.
▪ 76% of departures were to the south, 18% west, 4% north, and 2% east.
7 daily *arrivals* – a 4% decrease from 2012 and a 1% increase from 2011.
▪ 88% of arrivals were from the north, 6% east, 4% south, 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:** 127 daily *departures* – a 5% decrease from 2012 and a 6% decrease from 2011.
- Charleston:** 126 daily *arrivals* - a 4% decrease from 2012 and a 5% decrease from 2011.

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: 42 daily *touch and go's* - a 1% increase from 2012 and a 6% increase from 2011.

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

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

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

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

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

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

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

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

Helos: *Touring helicopters* accounted for 23% of the daily traffic.

Noisier Aircraft Types: The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for almost no operations per day.

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

Primary: In 2013, 78% departed to the *west* (from LAS's primary departure runways). This figure was 78% in 2012 and 86% in 2011.

Secondary: In 2013, 3% departed to the *south* (from LAS's secondary departure runways). This figure was 5% in 2012 and 6% in 2011.

Alternate 1: In 2013, 8% departed to the *north* (from LAS's alternate departure runways). This figure was 5% in 2012 and 5% in 2011.

Alternate 2: In 2013, 11% departed to the *east* (from LAS's alternate departure runways). This figure was less than 12% in 2012 and 4% in 2011.

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

SVHS: In 2013, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runway 25L or 25R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 94% in 2012 and 93% in 2011. (See July 2013 synopsis for specific location of the SVHS gate.)

- Peace:** In 2013, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runway 25L or 25R and made a right-hand turn were within 0.3 NM of the intersection of **Peace Way & Summers Shade Street**. This figure was 96% in 2012 and 94% in 2011. (See July 2013 synopsis for specific location of the Peace gate.)
- Pebble:** In 2013, 99% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runway 19L or 19R were within 0.3 NM of the intersection of **Pebble Road & Arville Street**. This figure was 98% in 2012 and 96% in 2011. (See July 2013 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2013, 83% of the large air carrier aircraft that departed to the north from Runway 01L or 01R were within 0.3 NM of the **UNLV sports complex**. This figure was 81% in 2012 and 79% in 2011. (See July 2013 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2013, 96% of the large air carrier aircraft that departed to the north from Runway 07L or 07R were within 0.3 NM of the extended runway centerline, near **Boulder Highway**. This figure was 98% in 2012 and 96% in 2011. (See July 2013 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2013, 90% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runway 25L or 25R were within 0.3 NM of the extended runway centerline, near **Hualapai Way**. This figure was 93% in 2012 and not available in 2011. (See July 2013 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2013, 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 2012 and 98% in 2011. (See July 2013 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2013, 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 2012 and 96% in 2011. (See July 2013 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2013, 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 84% in 2012 and 61% in 2011. (See July 2013 synopsis for specific location of the Stratosphere gate.)

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

Other Notable Issues

Helicopter Operator Users Meeting: On September 26, 2013, DOA staff members met with FAA, and local helicopter tour operators to discuss noise complaints tied to helicopter operations, route compliance, and operational growth. DOA staff provided information about a transition to a new radar feed. Upon completion, this fusion of surveillance data, from FAA en route and terminal radars will provide timely and detailed flight track data.

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

October 18, 2013

Page 15 of 30

Distribution: Commissioner Brager,
Commissioner Sisolak, Chair
Commissioner Collins
Commissioner Weekly
Rosemary Vassiliadis
Donald G. Burnette
Ralph LePore
Harry Waters
Teresa Motley
Cecil Johnson
Dan Kezar
Linda Healey
Tucker Field
Maureen Merry-Lamoureux
Tina Frias
Saeed Bonabian
Judy Villalta

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)

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

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* - July 2013

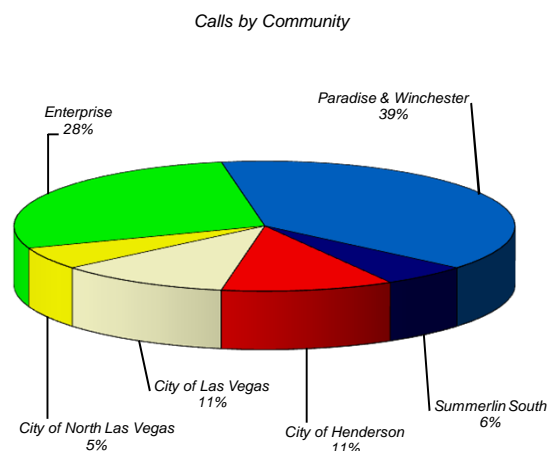
Community	No. of Calls in 2013	No. of Callers in 2013	No. of Calls in 2012	No. of Calls in 2011
City of Boulder City	2	2	26	2
City of Henderson	2	1	3	1
City of Las Vegas	2	1	3	1
City of North Las Vegas	1	1	3	1
Enterprise	5	3	1	1
Lone Mountain	7	3	21	1
Paradise & Winchester	7	3	1	5
Spring Valley	1	1	4	
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	18	11	56	13

Difference between 2013 and 2012 Total Calls: -68%

Difference between 2013 and 2011 Total Calls: 38%

Average Number of Calls per Caller: 1.6

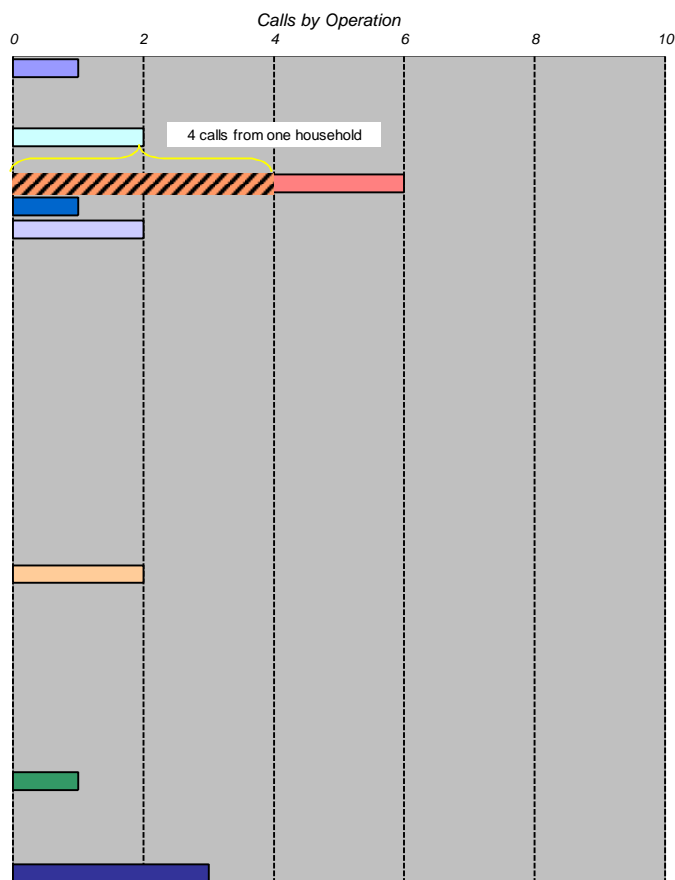
Most calls received from one household: 4



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

Exhibit 2: Noise Complaint Calls by Type of Operation - July 2013

Operation	No. of Calls in 2013	Percent of Overall Total	No. of Calls in 2012	No. of Calls in 2011
LAS 01R/L Arrivals	1	5.6%	1	
LAS 07R/L Arrivals			2	
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	2	11.1%		
LAS 01R/L Departures			6	1
LAS 07R/L Departures	6	33.3%	24	2
LAS 19R/L Departures	1	5.6%		3
LAS 25R/L Departures	2	11.1%	3	4
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	12	66.7%	36	10
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	11.1%		
VGT Other				
VGT Total	2	11.1%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	5.6%	1	
HND Other				
HND Total	1	5.6%	1	0
Helicopters**	3	16.7%	19	3
Overall Total	18	100%	56	13



** 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 - July 2013

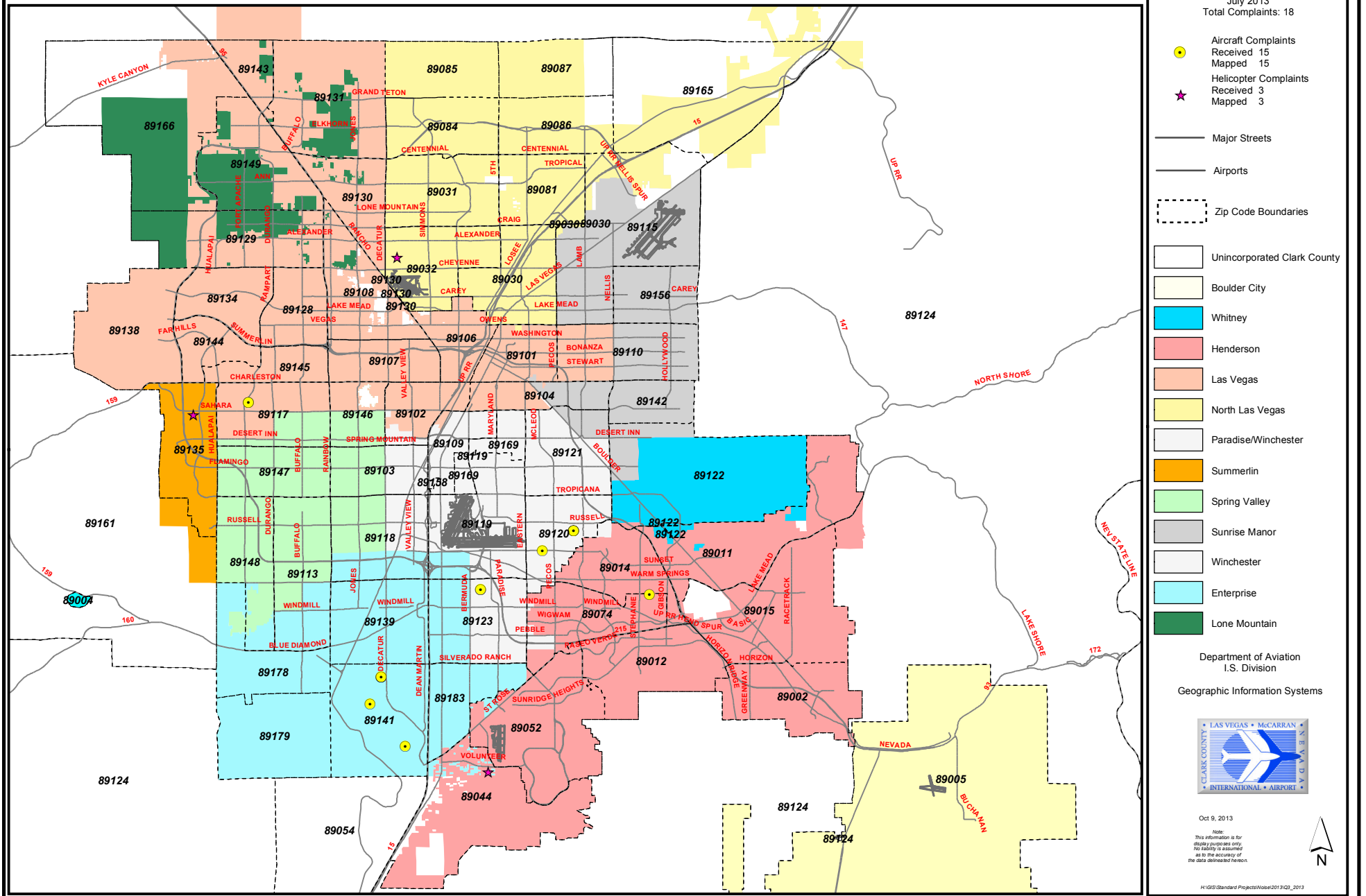
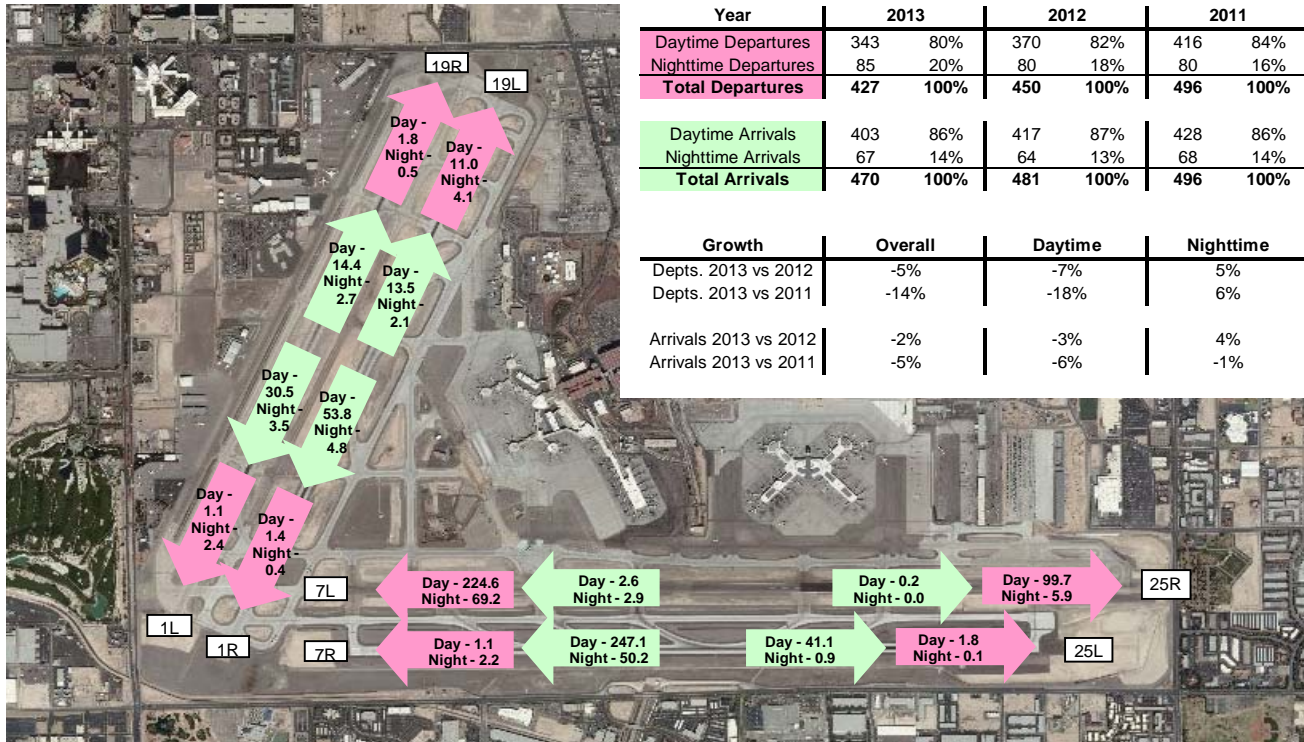
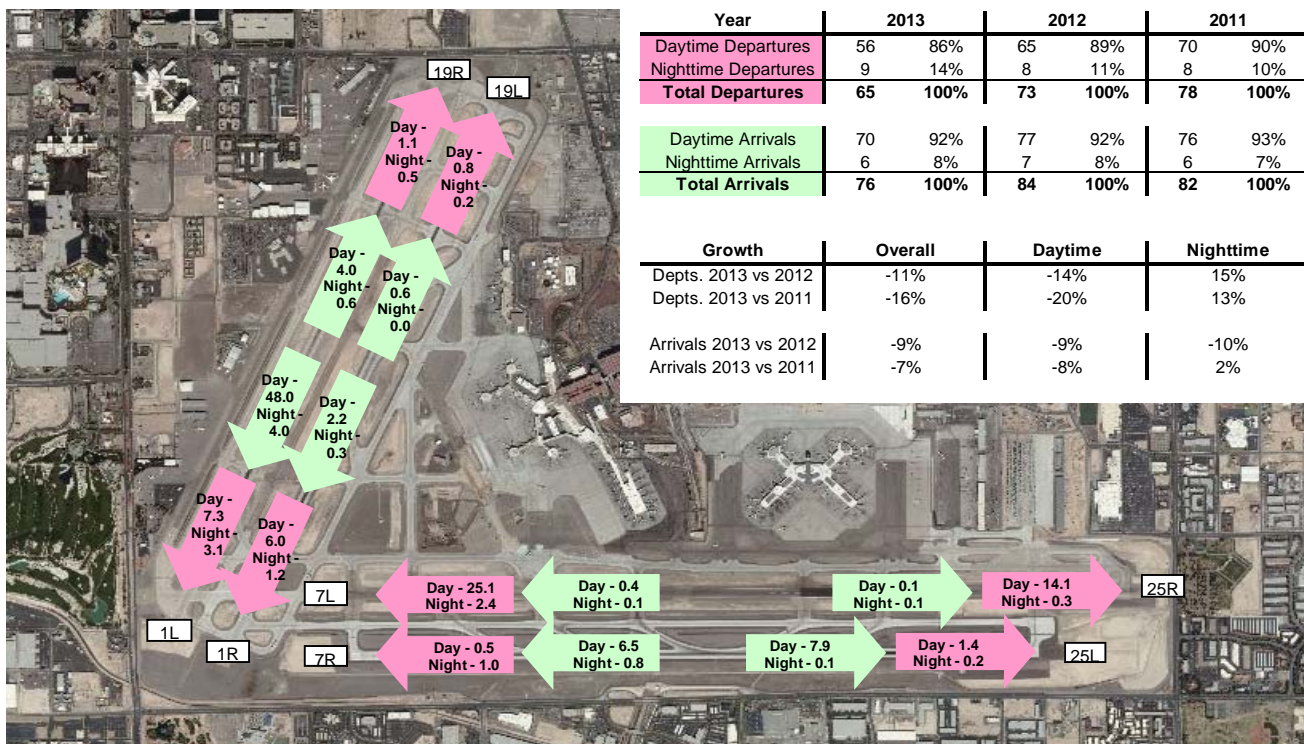


Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - July 2013



* 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** - July 2013



** 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 - July 2013

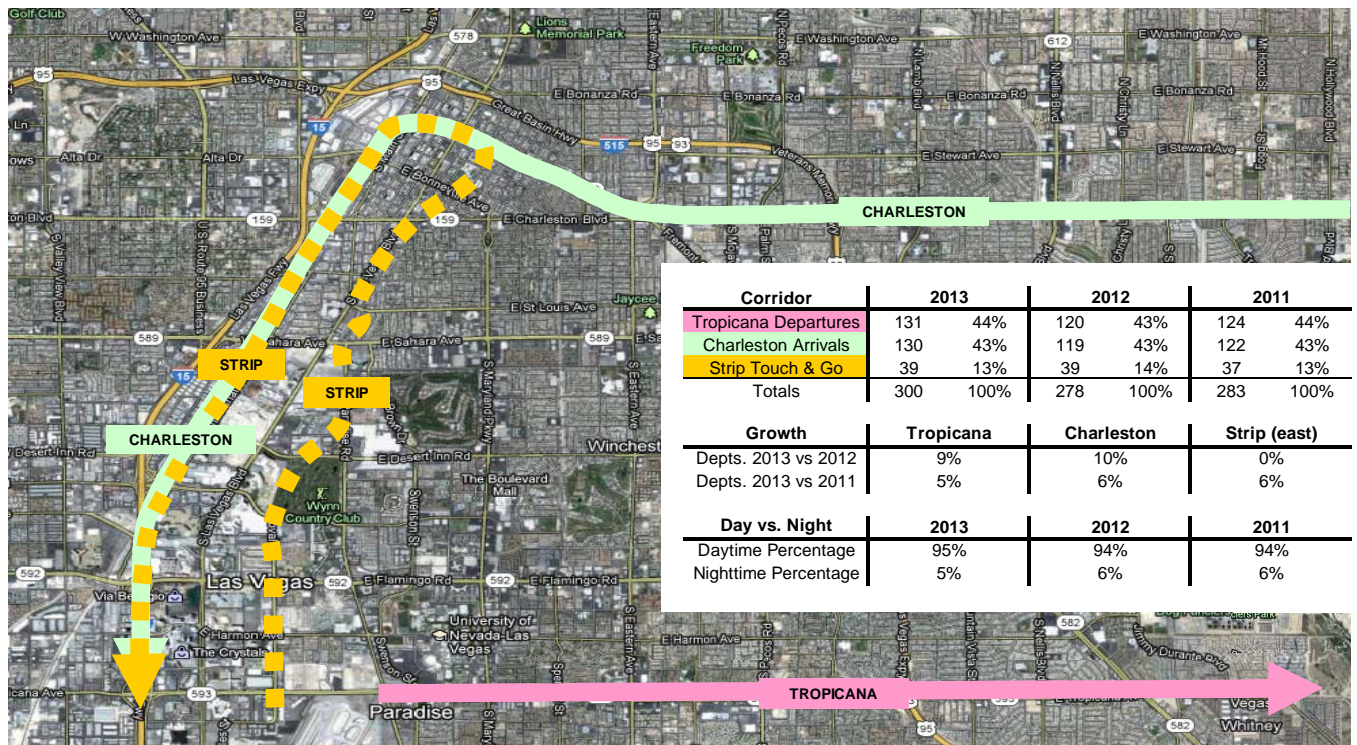
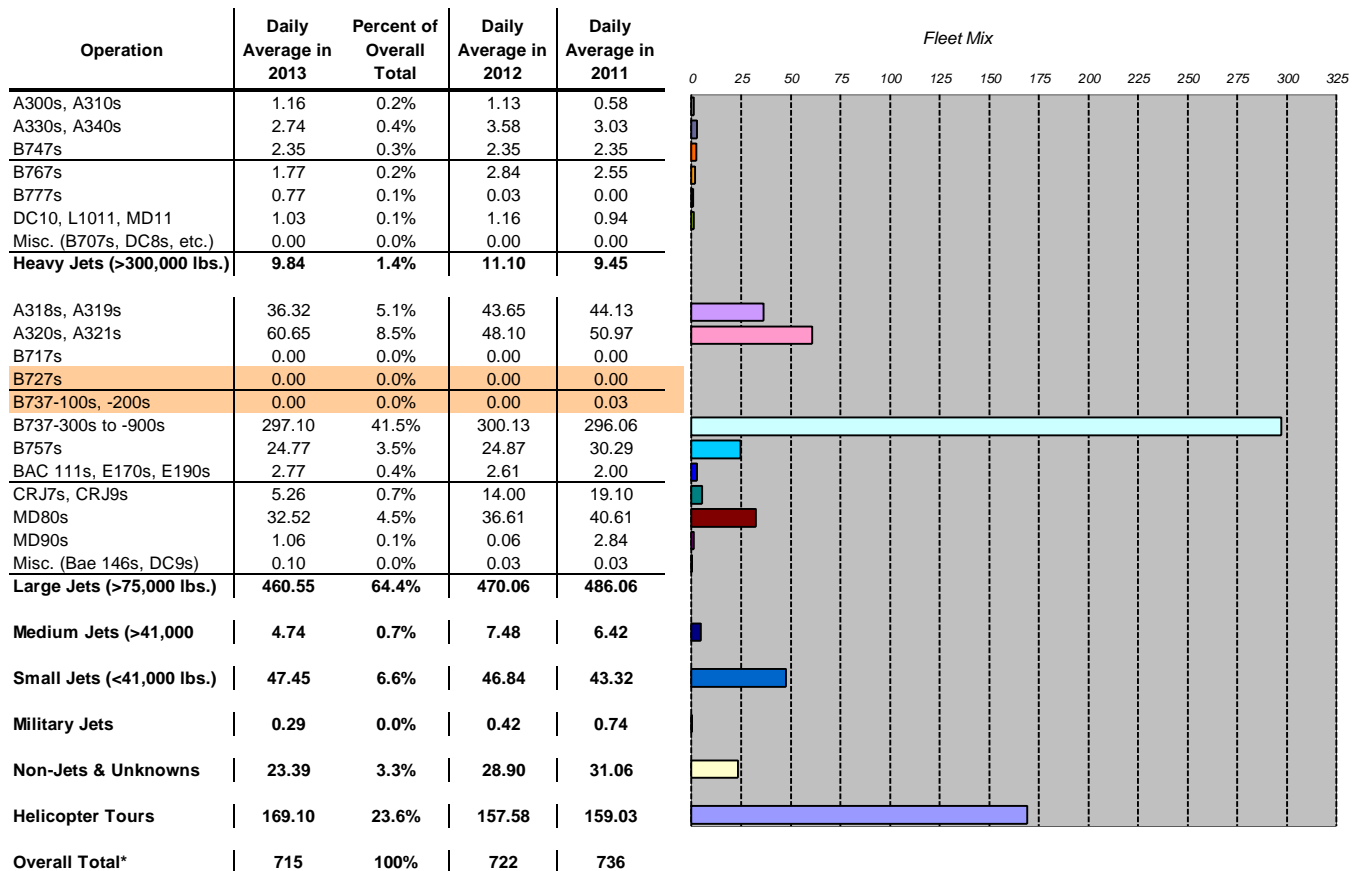


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - July 2013



* 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* - July 2013 to 2011

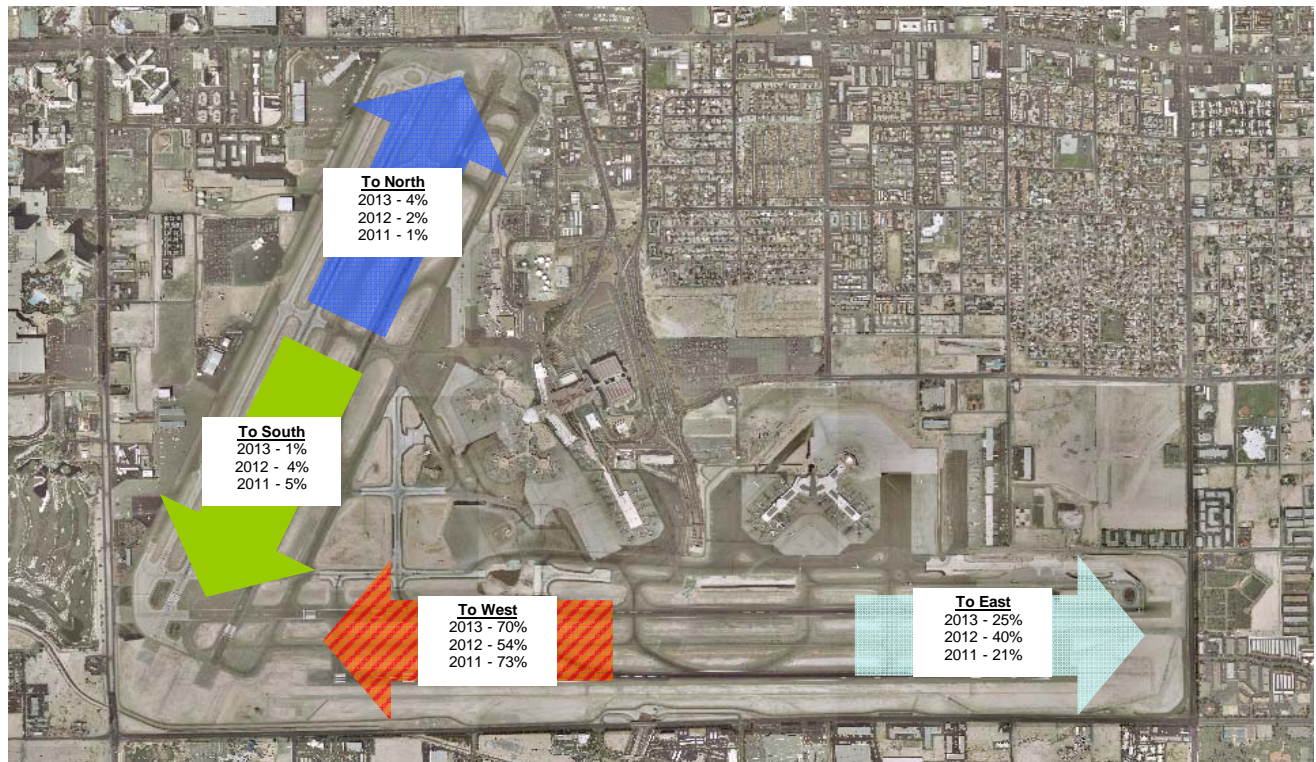
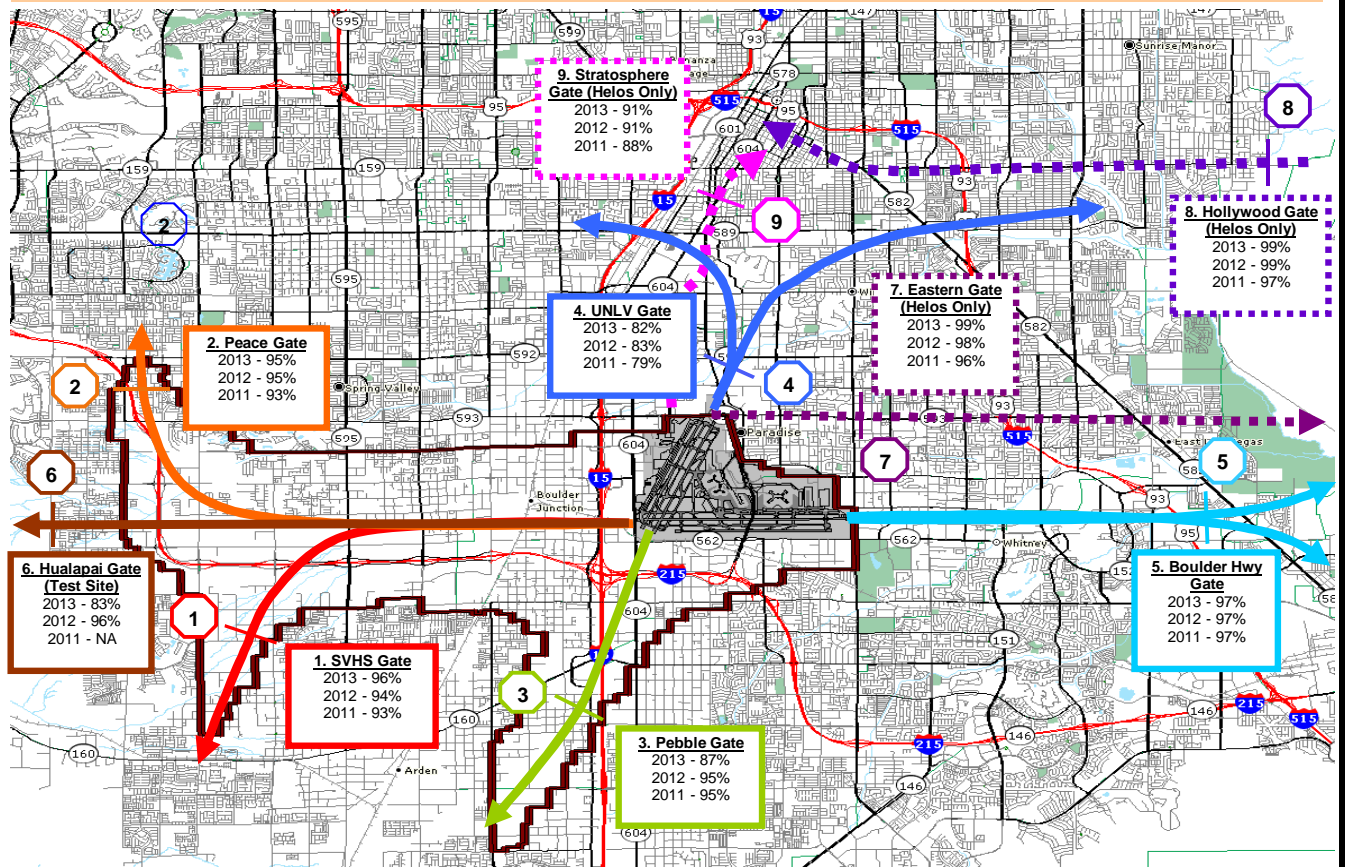


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - July 2013



* 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, A3707, 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* - August 2013

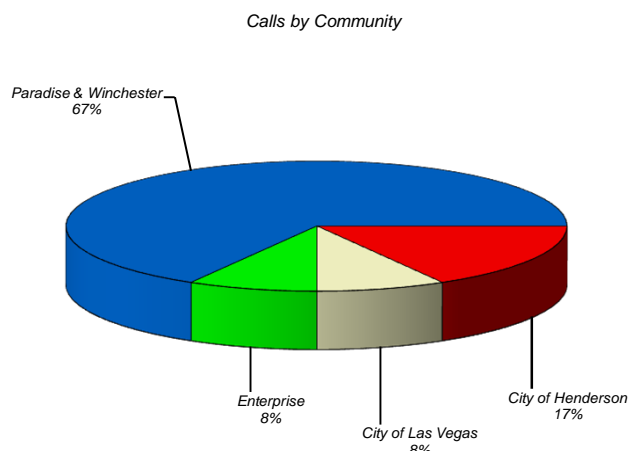
Community	No. of Calls in 2013	No. of Callers in 2013	No. of Calls in 2012	No. of Calls in 2011
City of Boulder City	2	2	28	2
City of Henderson	1	1	8	2
City of Las Vegas				
City of North Las Vegas				
Enterprise	1	1	3	2
Lone Mountain				1
Paradise & Winchester	8	4	7	1
Spring Valley			4	2
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	12	8	50	10

Difference between 2013 and 2012 Total Calls: -76%

Difference between 2013 and 2011 Total Calls: 20%

Average Number of Calls per Caller: 1.5

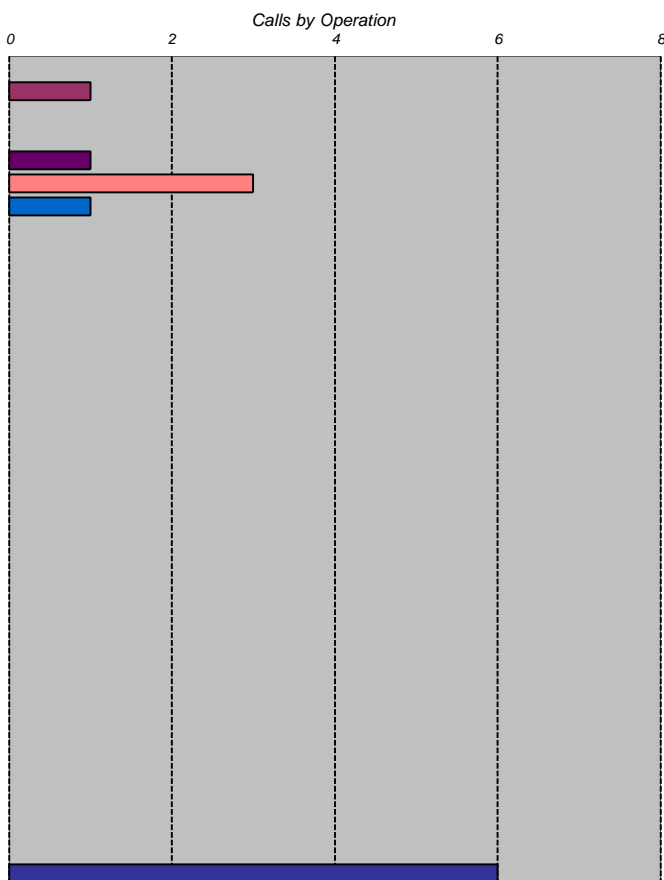
Most calls received from one household: 3



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

Exhibit 2: Noise Complaint Calls by Type of Operation - August 2013

Operation	No. of Calls in 2013	Percent of Overall Total	No. of Calls in 2012	No. of Calls in 2011
LAS 01R/L Arrivals				
LAS 07R/L Arrivals	1	8.3%		
LAS 19R/L Arrivals			1	
LAS 25R/L Arrivals				
LAS 01R/L Departures	1	8.3%	3	1
LAS 07R/L Departures	3	25.0%	5	
LAS 19R/L Departures	1	8.3%	1	
LAS 25R/L Departures			12	4
LAS Run-ups				
LAS GA				1
LAS Other				
LAS Total	6	50.0%	22	6
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			1	3
HND Other				
HND Total	0	0.0%	1	3
Helicopters**	6	50.0%	27	1
Overall Total	12	100%	50	10



** 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 - August 2013

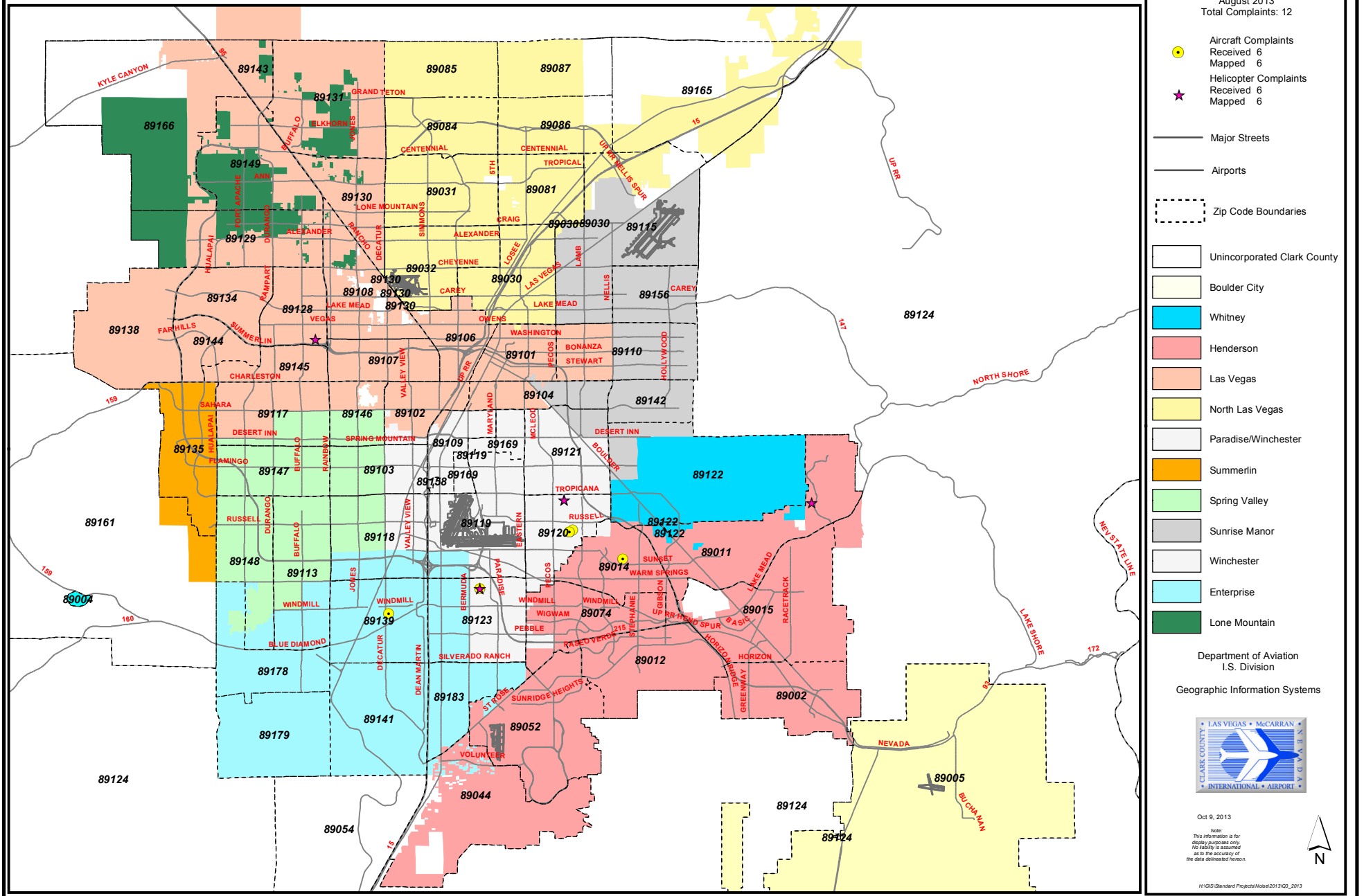
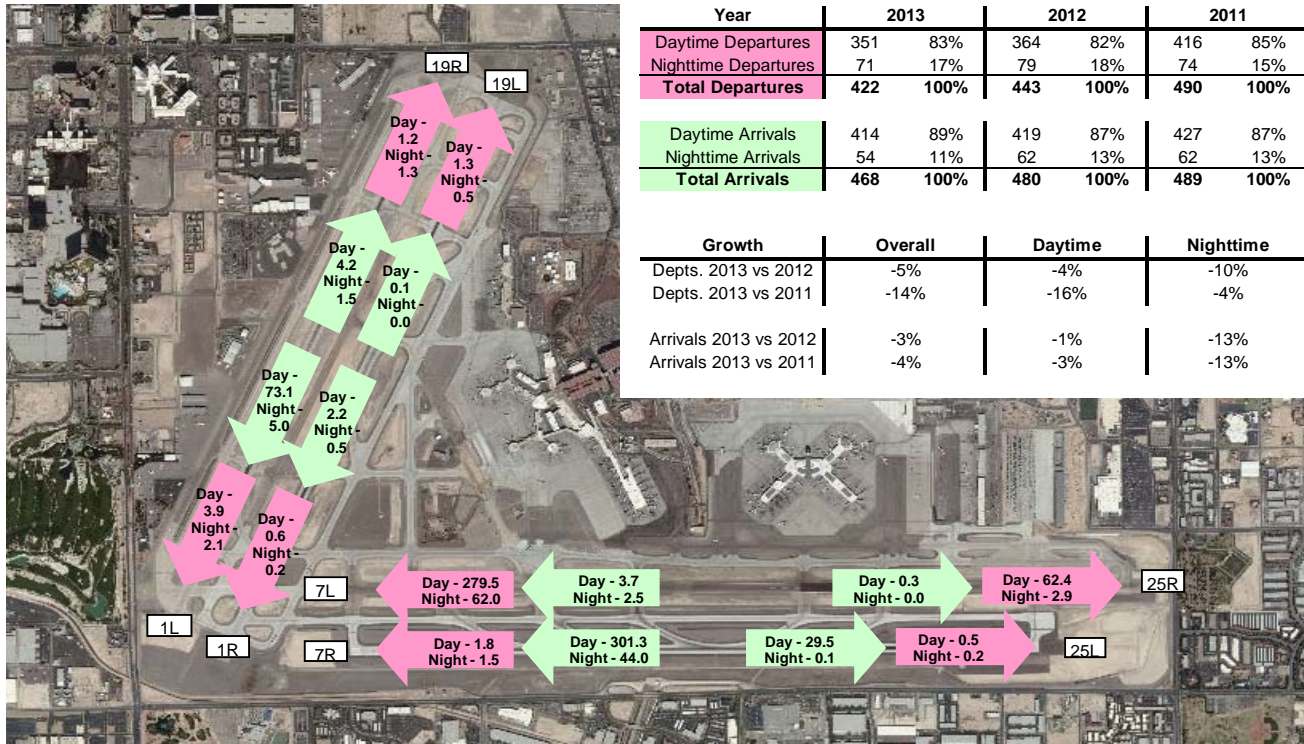
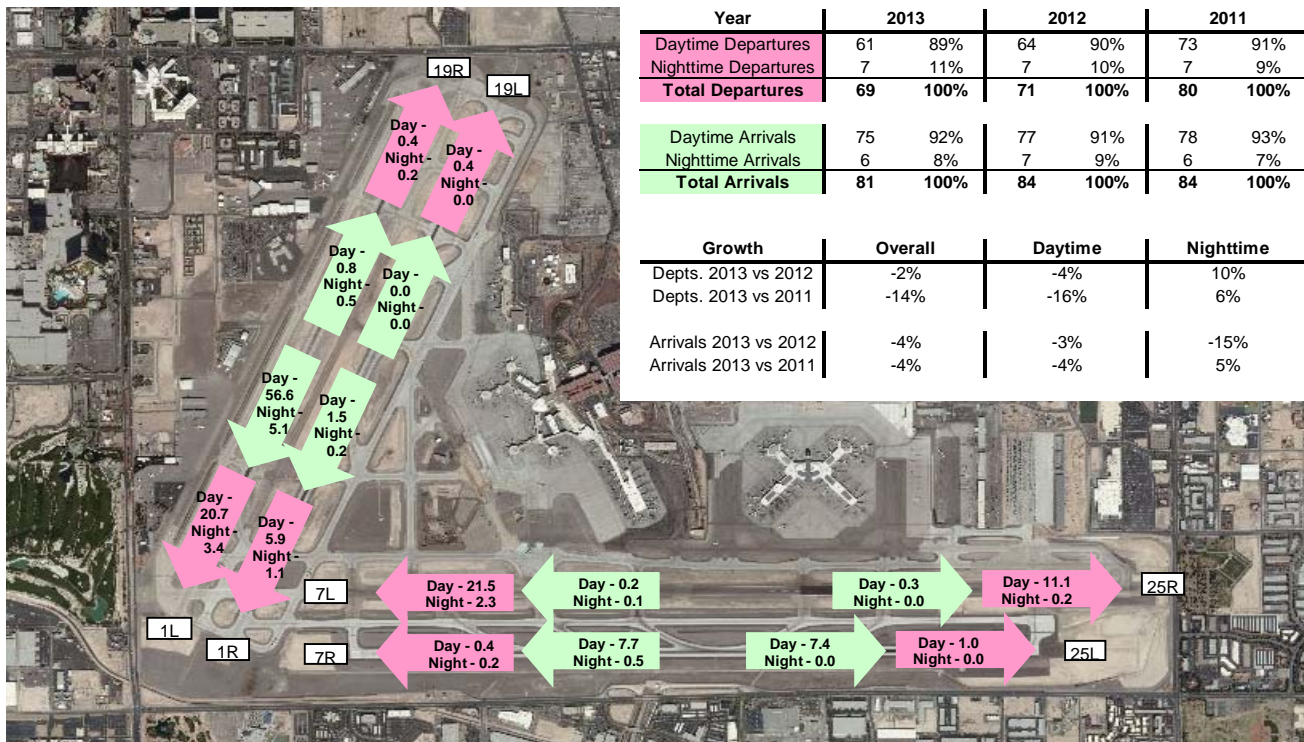


Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - August 2013



* 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** - August 2013



** 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 - August 2013

Exhibit 7: LAS Aircraft Arrival Fleet Mix* - August 2013

Operation	Daily Average in 2013	Percent of Overall Total	Daily Average in 2012	Daily Average in 2011	Fleet Mix
A300s, A310s	1.19	0.2%	1.03	0.58	
A330s, A340s	2.68	0.4%	3.42	3.19	
B747s	2.26	0.3%	2.45	2.32	
B767s	2.19	0.3%	3.29	2.61	
B777s	0.94	0.1%	0.06	0.06	
DC10, L1011, MD11	1.16	0.2%	1.35	1.03	
Misc. (B707s, DC8s, etc.)	0.00	0.0%	0.00	0.00	
Heavy Jets (>300,000 lbs.)	10.42	1.4%	11.61	9.81	
A318s, A319s	36.61	5.1%	43.03	43.71	
A320s, A321s	58.32	8.1%	49.23	49.39	
B717s	0.00	0.0%	0.00	0.00	
B727s	0.00	0.0%	0.00	0.13	
B737-100s, -200s	0.00	0.0%	0.03	0.00	
B737-300s to -900s	297.16	41.3%	300.03	299.61	
B757s	26.52	3.7%	22.13	28.32	
BAC 111s, E170s, E190s	2.06	0.3%	2.71	2.00	
CRJ7s, CRJ9s	5.90	0.8%	13.74	18.23	
MD80s	29.87	4.1%	37.58	33.90	
MD90s	1.03	0.1%	0.00	3.23	
Misc. (Bae 146s, DC9s)	0.13	0.0%	0.03	0.06	
Large Jets (>75,000 lbs.)	457.61	63.5%	468.52	478.58	
Medium Jets (>41,000	4.48	0.6%	6.45	6.00	
Small Jets (<41,000 lbs.)	52.94	7.3%	46.58	45.16	
Military Jets	0.23	0.0%	0.39	0.39	
Non-Jets & Unknowns	23.06	3.2%	30.42	32.71	
Helicopter Tours	171.60	23.8%	161.58	169.58	
Overall Total*	720	100%	726	742	

August 2013 Noise Complaint Report

Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft* - August 2013 to 2011

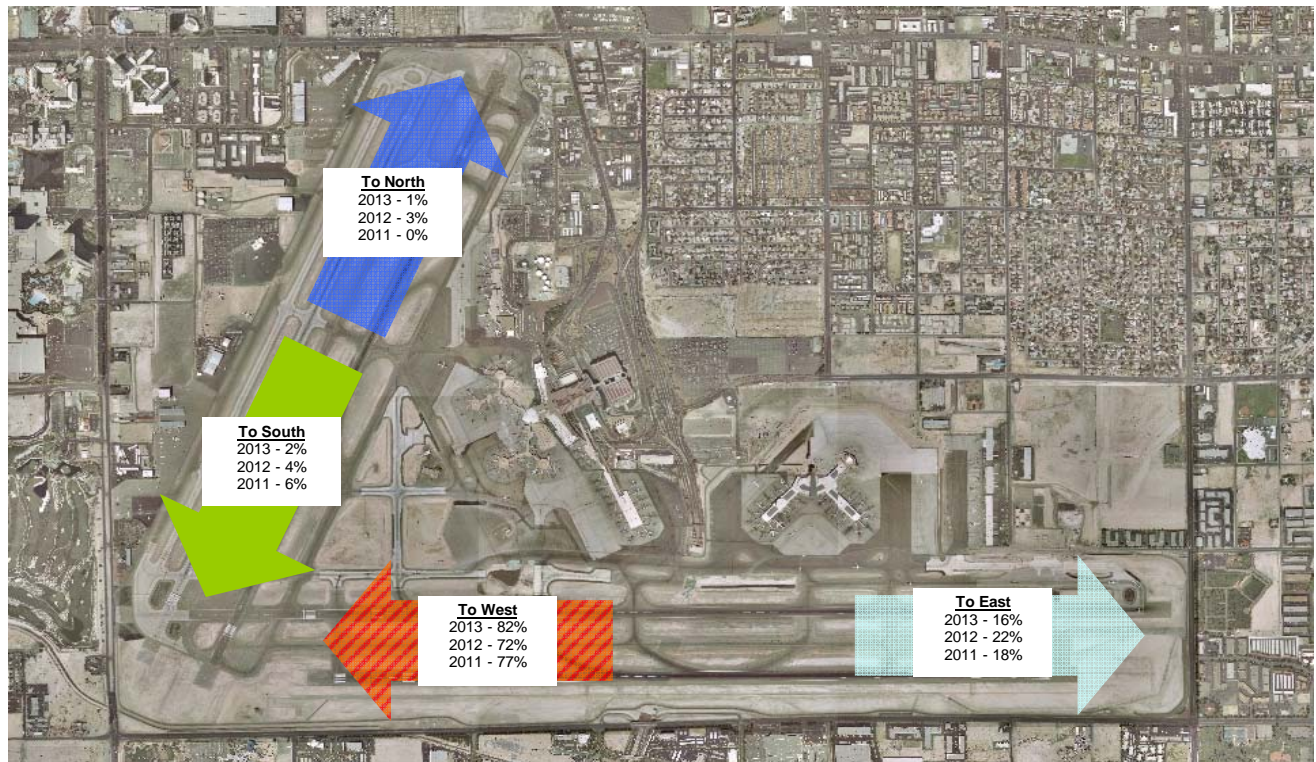
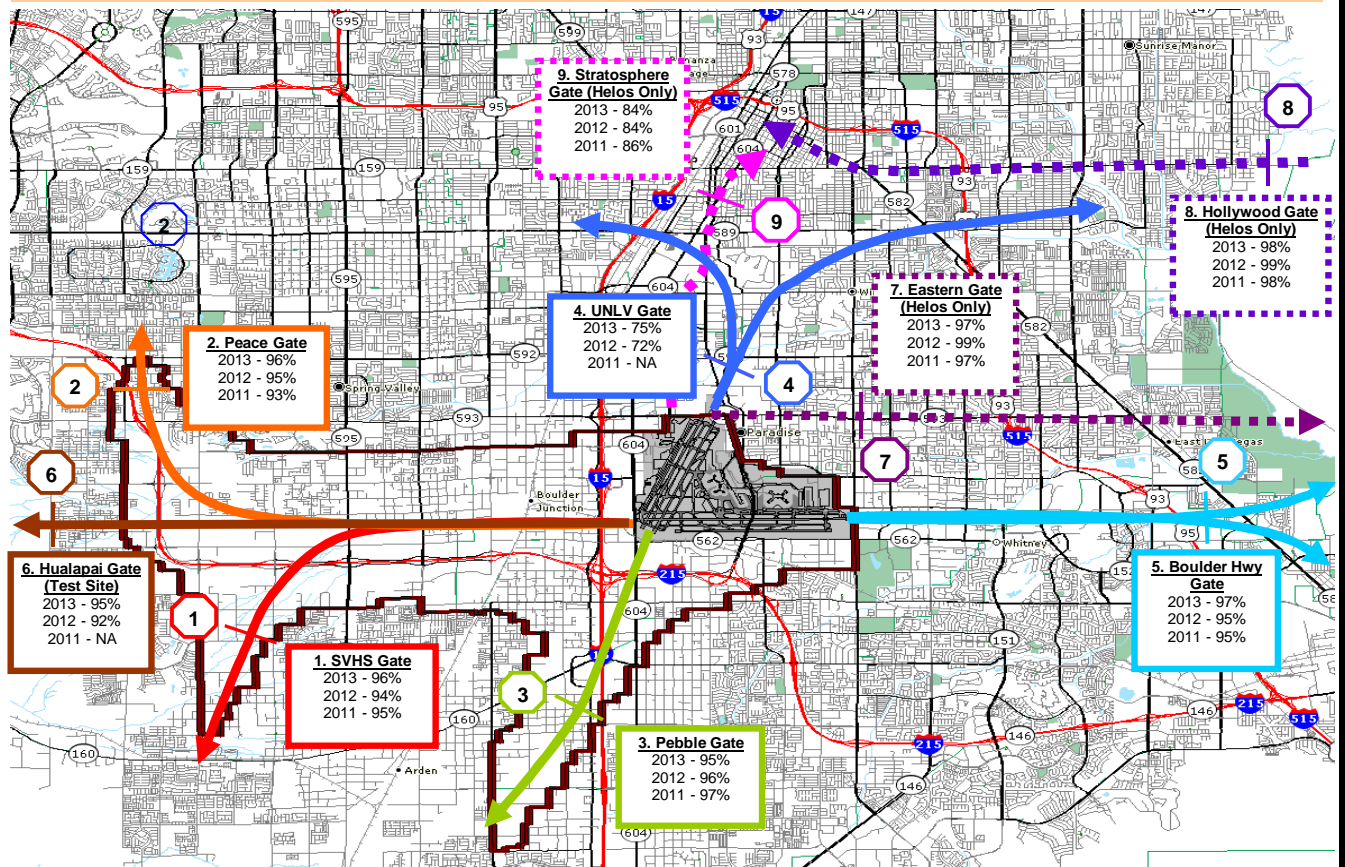


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - August 2013



* Aircraft types: All aircraft with a maximum gross take off weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A350, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 1: Noise Complaint Calls by Community* - September 2013

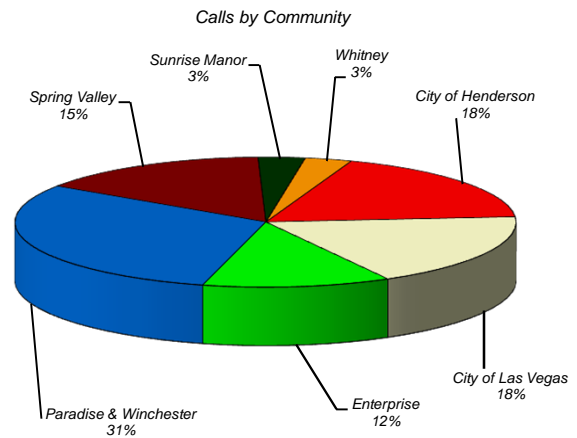
Community	No. of Calls in 2013	No. of Callers in 2013	No. of Calls in 2012	No. of Calls in 2011
City of Boulder City	6	5	25	12
City of Henderson	6	6	3	3
City of Las Vegas				
City of North Las Vegas				
Enterprise	4	2	5	2
Lone Mountain			1	
Paradise & Winchester	10	7	20	5
Spring Valley	5	1	13	4
Summerlin South				
Sunrise Manor	1	1	1	1
Whitney	1	1	1	1
Location unknown				
Overall Total	33	23	69	28

Difference between 2013 and 2012 Total Calls: -52%

Difference between 2013 and 2011 Total Calls: 18%

Average Number of Calls per Caller: 1.4

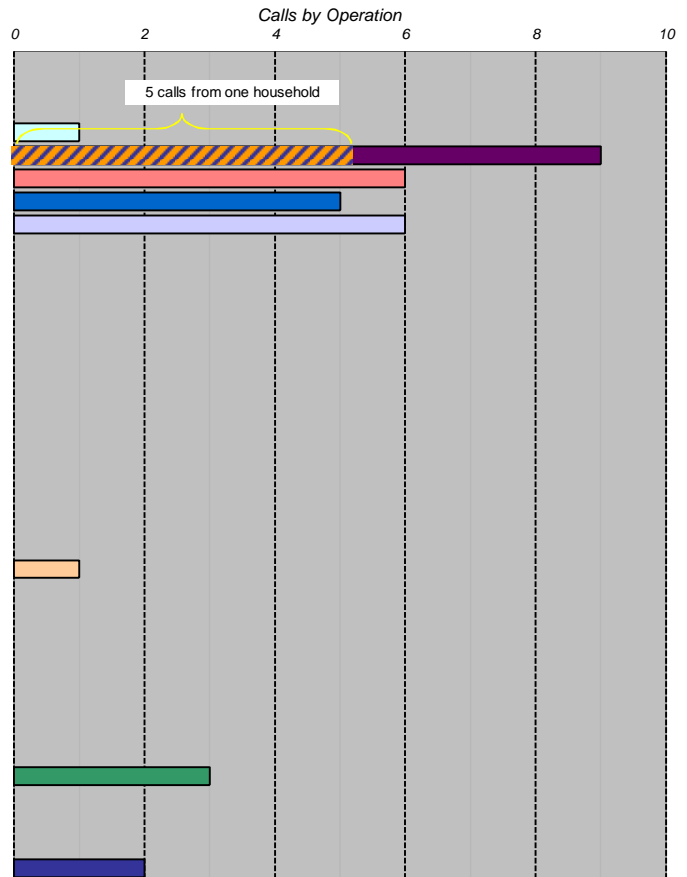
Most calls received from one household: 5



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

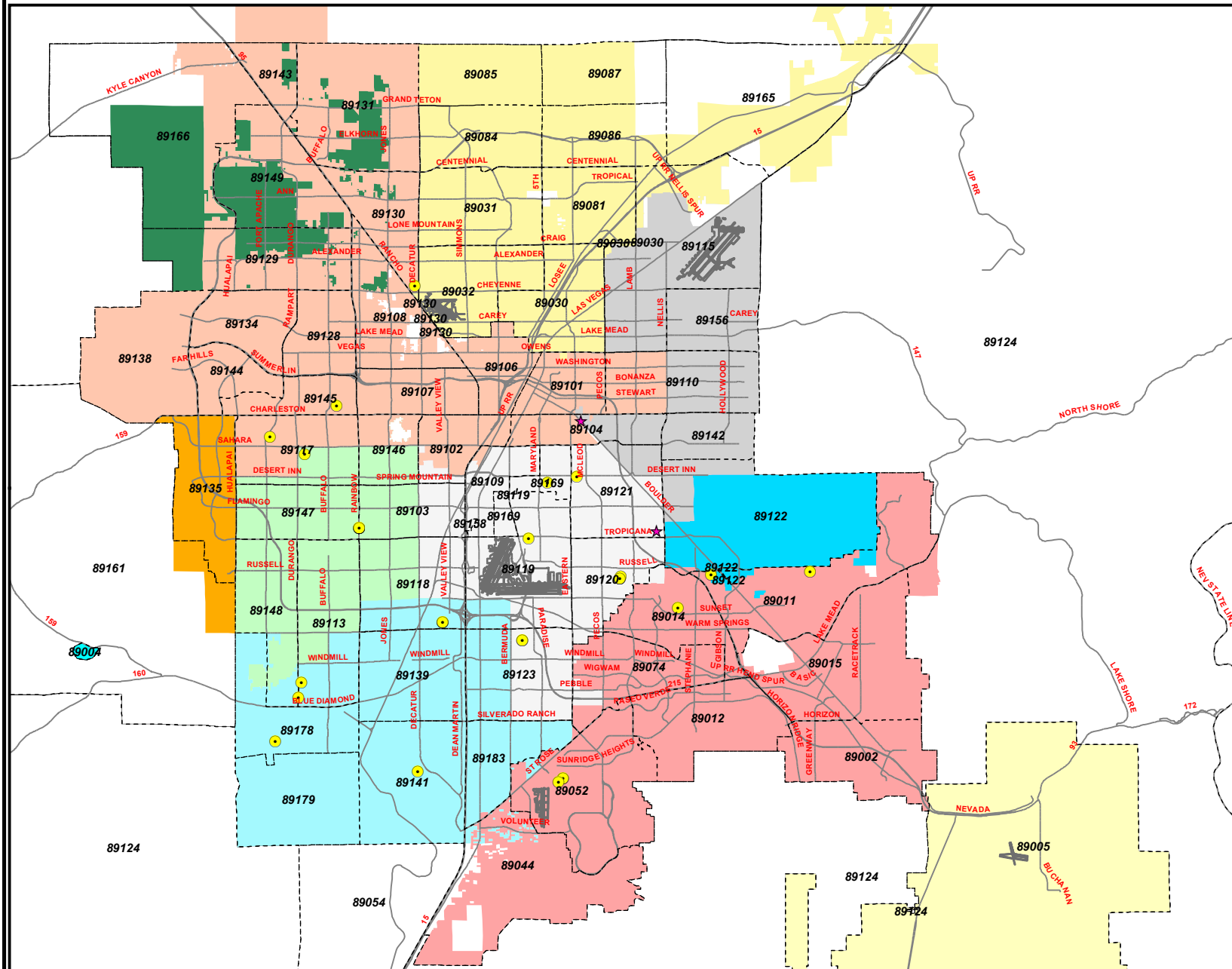
Exhibit 2: Noise Complaint Calls by Type of Operation - September 2013

Operation	No. of Calls in 2013	Percent of Overall Total	No. of Calls in 2012	No. of Calls in 2011
LAS 01R/L Arrivals				
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals	1	3.0%		
LAS 01R/L Departures	9	27.3%	8	8
LAS 07R/L Departures	6	18.2%	19	1
LAS 19R/L Departures	5	15.2%	3	1
LAS 25R/L Departures	6	18.2%	12	5
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	27	81.8%	42	15
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	3.0%	1	
VGT Other				
VGT Total	1	3.0%	1	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	3	9.1%	3	1
HND Other				
HND Total	3	9.1%	3	1
Helicopters**	2	6.1%	23	12
Overall Total	33	100%	69	28



** 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 - September 2013



Legend

September 2013
Total Complaints: 33

- Aircraft Complaints
Received 31
Mapped 31
- ★ 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



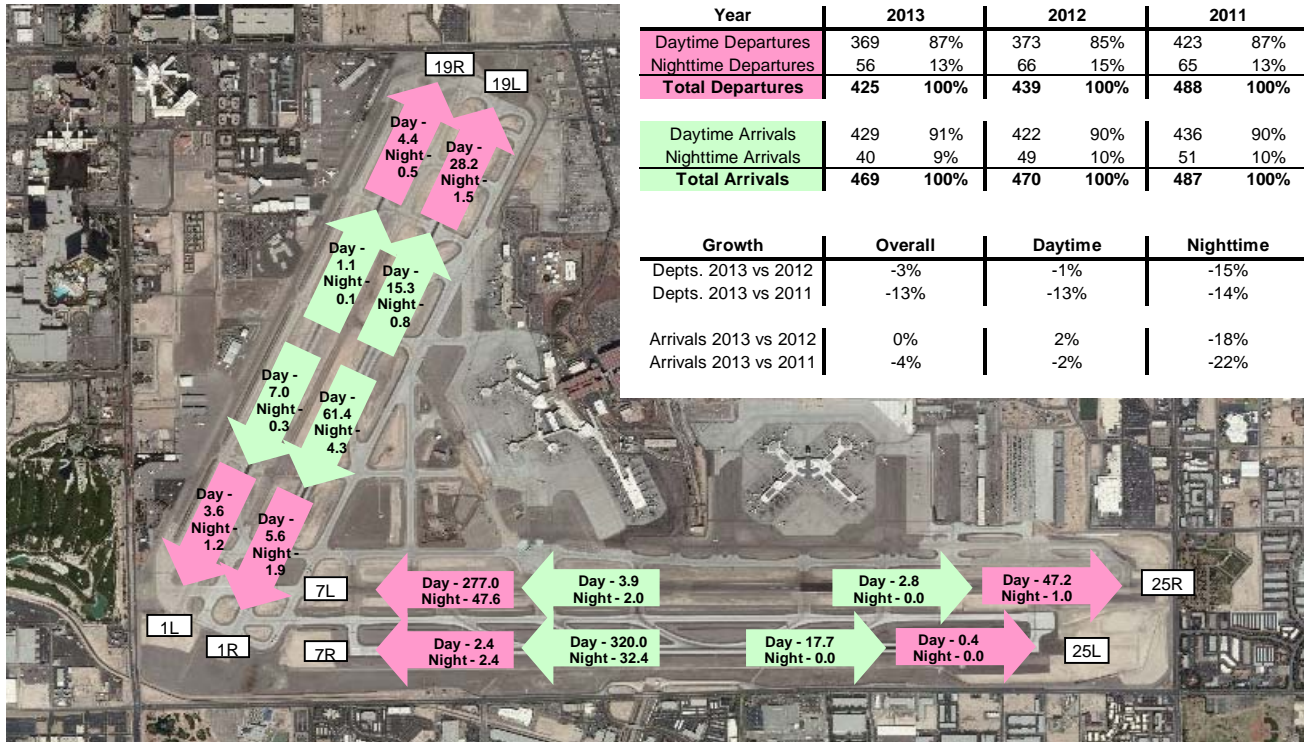
Oct 9, 2013

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



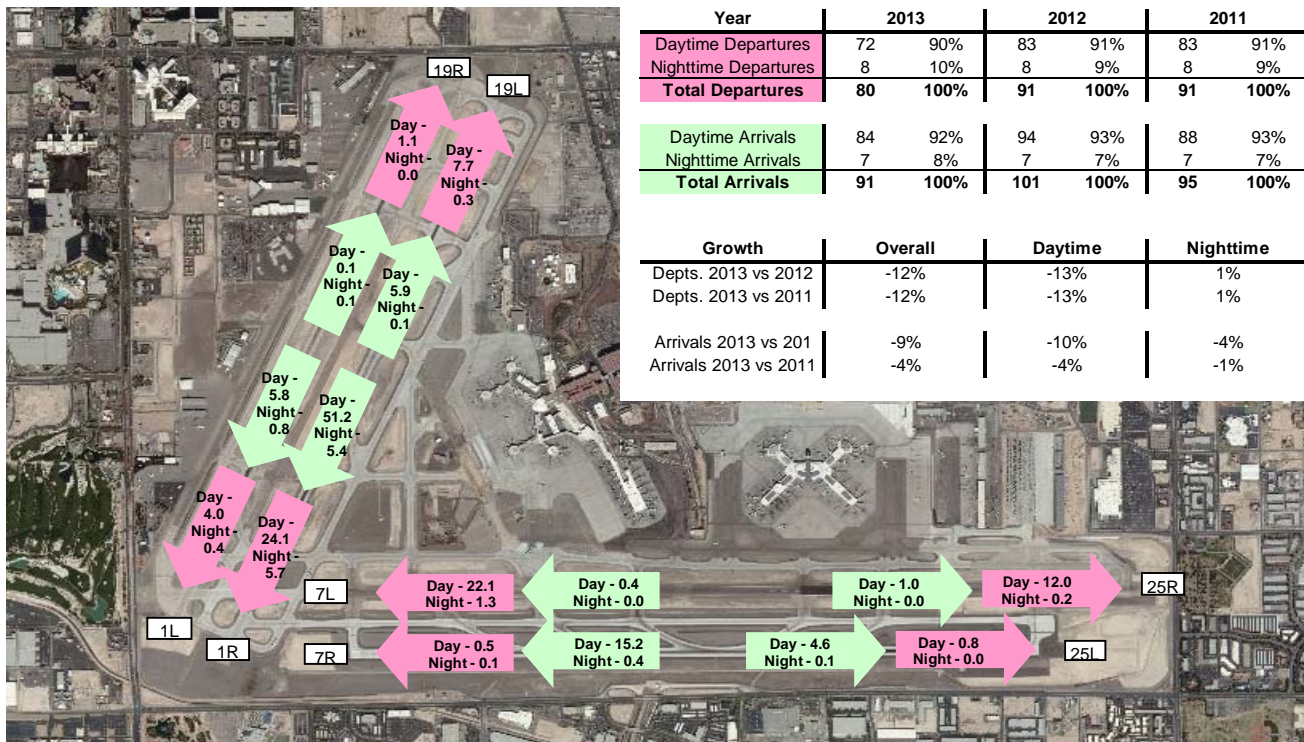
H:\GIS\Standard Projects\Noise\2013\Q3_2013

Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - September 2013



* 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** - September 2013



** 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 - September 2013

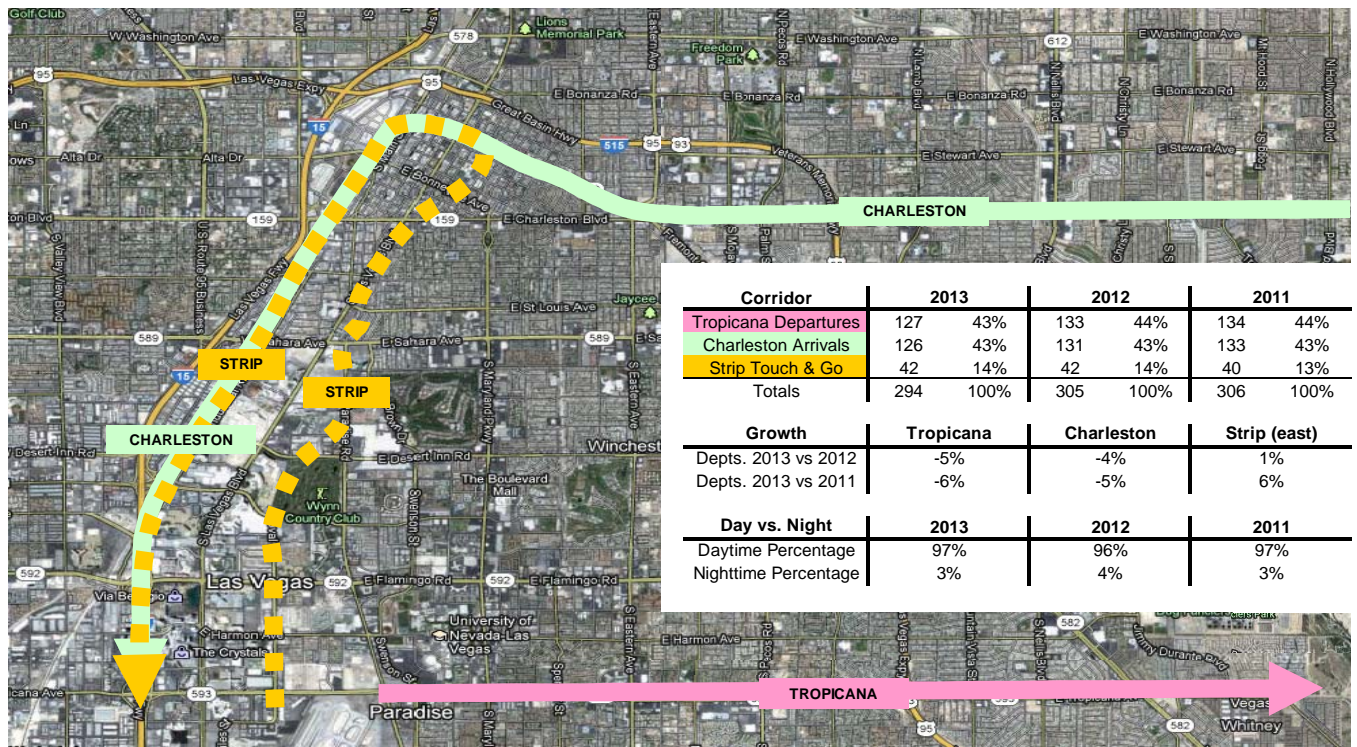
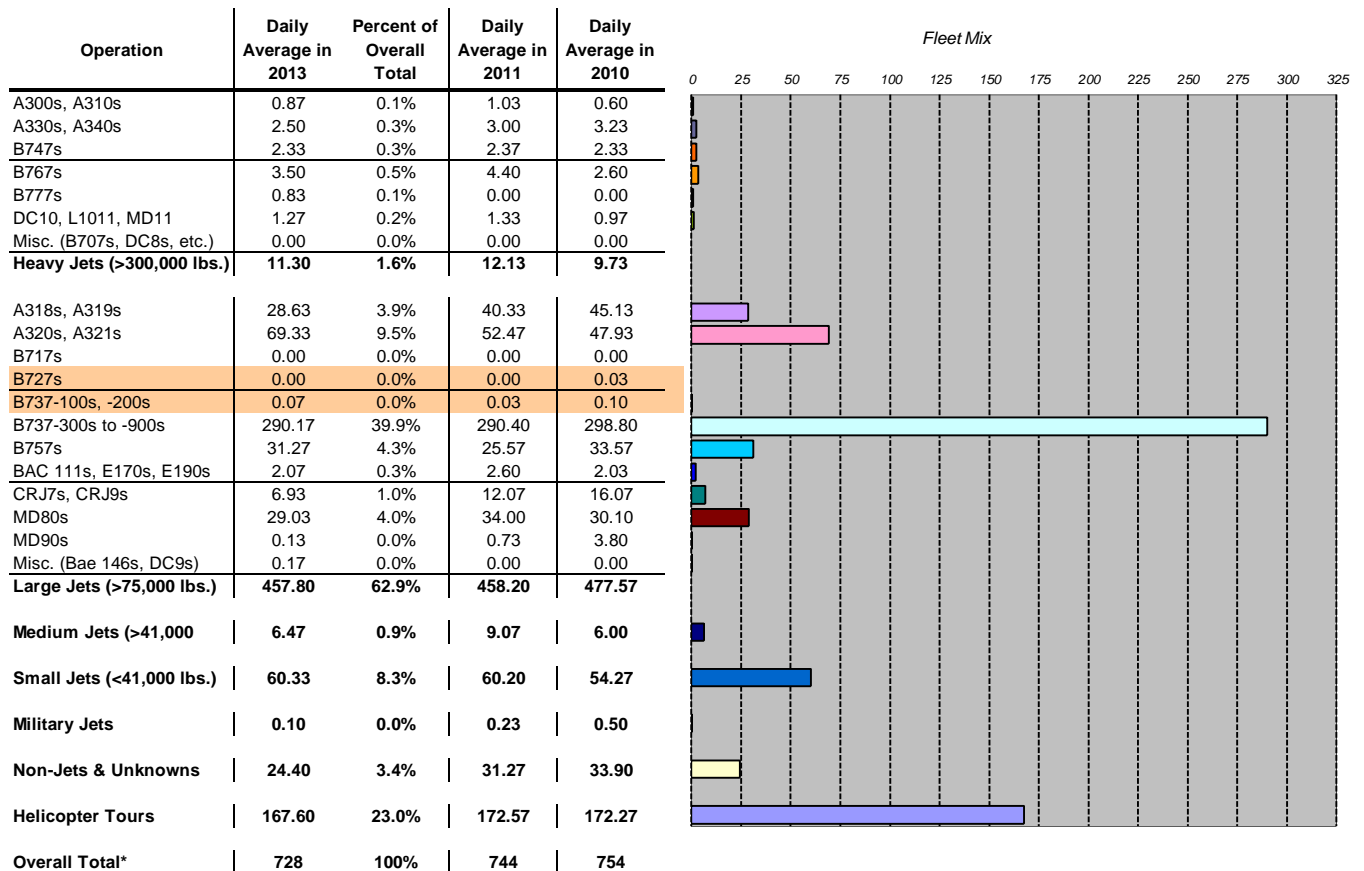


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - September 2013

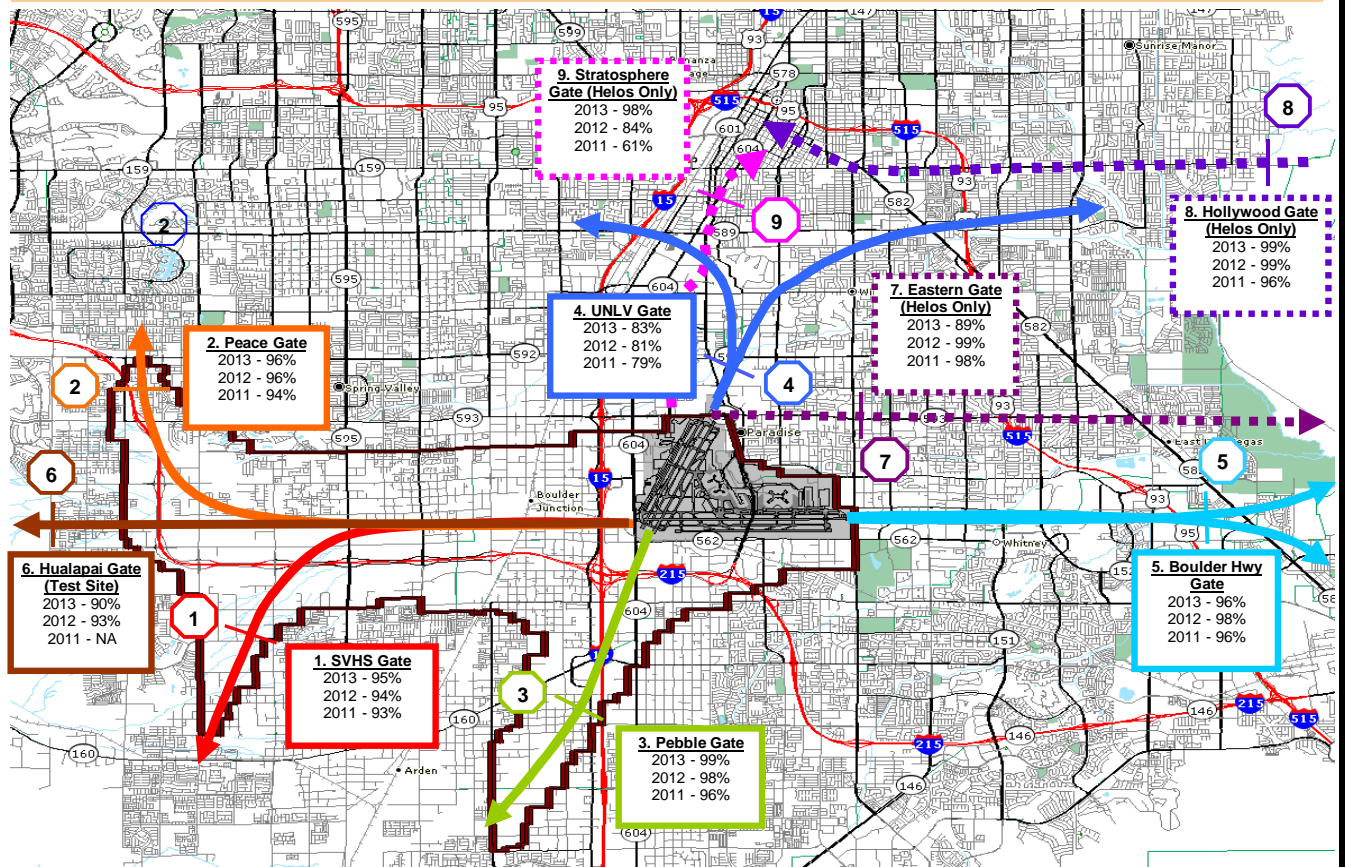


* Overall Total: Note that operation type and runway use counts are estimated by ITT Exelis AirScene.com Noise and Monitoring Operations (NOMS) system based on radar data. Due to limitations of radar data, information for aircraft weighing less than 75,000 lbs. is inexact.

Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft* - September 2013 to 2011



Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - September 2013



* Aircraft types: All aircraft with a maximum gross take off weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A350, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.