


MEMORANDUM

DEPARTMENT OF AVIATION

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TO: DISTRIBUTION

FROM: GEORGE C. SIMS, PLANNER 

SUBJECT: JULY THROUGH SEPTEMBER 2012 NOISE COMPLAINT REPORTS

DATE: OCTOBER 19, 2012

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for July through September 2012. 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 (new for the 2012 monthly reports). Arrival and departure corridor use for helicopters are summarized in **Exhibit 6** (also new for the 2012 monthly reports). **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 (historically only provided on an annual basis).

Lastly, **Exhibit 9** summarizes how well large aircraft and helicopters adhered to the preferred, non-regulated departure corridors (also historically provided on an annual basis for large aircraft, with helicopter analysis new for the 2012 monthly reports). 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 2012: 56 total complaints - a 331% increase from 2011 and a 75% increase from 2010. On average, each caller (or household) issued 2.4 calls. The most calls received from one household totaled 18.

Calls by Community - (Exhibits 1 and 3)

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

Minority (between 10% and 50%): The **City of Henderson** community issued 26 calls (46%). This community is typically impacted by aircraft departing to the east (from Runway 07R and Runway 07L). This community is also impacted by aircraft arriving from the east (into Runway 25R and Runway 25L, LAS preferred departure configuration).

The **Paradise and Winchester** communities issued 21 calls (38%). 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).

Repeat Caller Impact: One household issued 32% (18 calls) of all the calls received in July 2012.

Calls by Operation - (Exhibit 2)

- LAS:** 64% of the total calls were due to **LAS** fixed-wing operations.
- 43% were due to departures to the east from Runways 07L and 07R.
- VGT:** 0% of the total calls were due to **VGT** fixed-wing operations.
- HND:** 2% of the total calls were due to **HND** fixed-wing operations.
- Helos:** 34% of the total calls were due to **helicopter** operations.
- 95% from one household.

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

- Overall:** 450 daily *departures*¹ – a 9% decrease from 2011 and 5% decrease from 2010.
- 54% of departures were to the west, 40% east, 4% south, and 2% north.
- 481 daily *arrivals* – a 3% decrease from 2011 and 2% increase from 2010.
- 51% of arrivals were from the east, 31% north, 17% west, and 1% south.
- Daytime:** 370 daily *departures*² – an 11% decrease from 2011 and a 10% decrease from 2010.
- 48% of departures were to the west, 46% east, 4% south, and 2% north.
- 417 daily *arrivals* – a 3% decrease from 2011 and a 2% decrease from 2010.
- 48% of arrivals were from the east, 32% north, 19% west, and 1% 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:** 80 daily *departures*³ – no change from 2011 and a 27% increase from 2010.
- 83% of departures were to the west, 15% east, and 3% south.
- 64 daily *arrivals* – a 5% decrease from 2011 and a 34% increase from 2010.
- 75% of arrivals were from the east, 20% north, 4% west, and 1% south.

Daytime vs. Nighttime: Approximately 82% of all *departures* and 87% of all *arrivals* occurred during the daytime hours.

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

- Overall:** 73 daily *departures*⁴ – a 6% decrease from 2011 and 4% decrease from 2010.
- 47% of departures were to the south, 39% east, 12% west, and 2% north.
- 84 daily *arrivals* – a 2% increase from 2011 and 1% increase from 2010.
- 68% of arrivals were from the north, 22% west, 9% east, and 2% south.

- Daytime:** 65 daily *departures*⁵ – a 7% decrease from 2011 and a 4% decrease from 2010.
- 44% of departures were to the south, 43% east, 11% west, and 2% north.
- 77 daily *arrivals* – a 1% increase from 2011 and a 1% decrease from 2010.
- 67% of arrivals were from the north, 23% west, 8% east, and 2% south.

- Nighttime:** 8 daily *departures*⁶ – a 3% decrease from 2011 and a 3% decrease from 2010.
- 70% of departures were to the south, 19% west, 10% east, and 1% north.
- 7 daily *arrivals* – a 13% increase from 2011 and a 36% increase from 2010.
- 72% of arrivals were from the north, 20% east, 5% south, and 4% west.

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

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

Tropicana: 120 daily *departures* - a 3% decrease from 2011 and a 3% increase from 2010.

Charleston: 119 daily *arrivals* - a 3% decrease from 2011 and a 3% increase from 2010.

Strip: 39 daily *touch and go's* - a 6% increase from 2011 and an 11% increase from 2010.

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

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

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

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

³ See footnote #1.

⁴ See footnote #1.

⁵ See footnote #1.

⁶ See footnote #1.

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

Small: *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 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 4% of the daily traffic.

Helos: *Touring helicopters* accounted for 22% of the daily traffic.

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

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

Primary: In 2012, 54% departed to the *west* (from LAS's primary departure runways). This figure was 73% in 2011 and 58% in 2010.

Secondary: In 2012, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 5% in 2011 and 4% in 2010.

Alternate 1: In 2012, 2% departed to the *north* (from LAS's alternate departure runways). This figure was 1% in 2011 and 0% in 2010.

Alternate 2: In 2012, 40% departed to the *east* (from LAS's alternate departure runways). This figure was 21% in 2011 and 38% in 2010. Temperatures in excess of 100 degrees Celsius for all 31 days of July resulted in heavy departure flows to the east.

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

SVHS: In 2012, 94% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 93% in 2011 and 92% in 2010.

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 2012, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 93% in 2011 and 91% in 2010.

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 2012, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 95% in 2011 and 88% in 2010.

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 2012, 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 79% in 2011 and not available in 2010.

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 2012, 97% of the large air carrier aircraft that departed to the north from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 97% in 2011 and 96% in 2010.

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 2012, 96% of the large air carrier aircraft destined to the Nevada Test 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 not available in 2011 or 2010.

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 2012, 98% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of *Tropicana Avenue & Eastern Avenue*. This figure was 96% in 2011 and 96% in 2010.

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 2012, 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 97% in 2011 and 95% in 2010.

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 2012, 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 88% in 2011 and 47% in 2010.

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, with the exception of 18 calls from one household, flight activity, with the exception of 40% of departures to the east, fleet mix, and gate compliance.

August 2012: 50 total complaints - a 400% increase from 2011 and a 9% increase from 2010. On average, each caller (or household) issued 2.6 calls. The most calls received from one household totaled 25.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The *City of Henderson* community issued 28 calls (56%). (See July 2012 synopsis of typical aircraft overflight impacts on this community.)

Minority (between 10% and 50%): The *City of Las Vegas* community issued 8 calls (16%). This community is typically impacted by aircraft departing to the west (from Runway 25R and Runway 25L).

The *Paradise and Winchester* communities issued 7 calls (14%). (See July 2012 synopsis of typical aircraft overflight impacts on this community.)

Repeat Caller Impact: Two households issued 64% (32 calls) of all the calls received in August 2012.

Calls by Operation - (Exhibit 2)

- LAS:** 44% of the total calls received were due to *LAS* fixed-wing operations.
- 24% were due to departures to the north from Runways 01L and 01R (58% 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:** 54% of the total calls received were due to *helicopter* operations (93% from one household).

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

- Overall:** 443 daily *departures*⁷ – a 10% decrease from 2011 and 6% decrease from 2010.
- 72% of departures were to the west, 22% east, 4% south, and 1% north.
- 480 daily *arrivals* – a 2% decrease from 2011 and 2% increase from 2010.
- 67% of arrivals were from the east, 20% north, 9% west, and 4% south.
- Daytime:** 364 daily *departures*⁸ – a 12% decrease from 2011 and 11% decrease from 2010.
- 70% of departures were to the west, 25% east, 5% south, and 1% north.
- 419 daily *arrivals* – a 2% decrease from 2011 and a 1% decrease from 2010.
- 67% of arrivals were from the east, 20% north, 10% west, and 3% south.
- Nighttime:** 79 daily *departures*⁹ – a 6% increase from 2011 and 27% increase from 2010.
- 85% of departures were to the west, 10% east, 3% north, and 2% south.
- 62 daily *arrivals* – a 1% decrease from 2011 and a 34% increase from 2010.
- 72% of arrivals were from the east, 19% north, 6% south, and 4% west.

Daytime vs. Nighttime: Approximately 82% of all *departures* and 87% of all *arrivals* occurred during the daytime hours. As stated in the July analysis, historically these percentages have been approximately 80%. Many of the traffic reductions at LAS are occurring during the nighttime hours.

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

⁷ See footnote #1.

⁸ See footnote #1.

⁹ See footnote #1.

Overall: 71 daily *departures*¹⁰ – a 12% decrease from 2011 and 13% decrease from 2010.
▪ 62% of departures were to the south, 20% east, 16% west, and 2% north.
84 daily *arrivals* – no change from 2011 and an 8% decrease from 2010.
▪ 73% of arrivals were from the north, 13% east, 11% west, and 4% south.

Daytime: 64 daily *departures*¹¹ – a 13% decrease from 2011 and a 13% decrease from 2010.
▪ 61% of departures were to the south, 21% east, 16% west, and 2% north.
77 daily *arrivals* – a 2% decrease from 2011 and a 9% decrease from 2010.
▪ 73% of arrivals were from the north, 12% east, 11% west, and 4% south.

Nighttime: 7 daily *departures*¹² – a 4% decrease from 2011 and a 16% decrease from 2010.
▪ 73% of departures were to the south, 20% west, 4% east, and 3% north.
7 daily *arrivals* – a 23% increase from 2011 and a 6% increase from 2010.
▪ 66% of arrivals were from the north, 20% east, 7% south, and 7% west.

Daytime vs. Nighttime: Approximately 90% of all *departures* and 91% of all *arrivals* occurred during the daytime hours.

Operations by Corridor for Helicopter Tours - (Exhibit 6)

Tropicana: 124 daily *departures* – a 7% decrease from 2011 and no change from 2010.

Charleston: 123 daily *arrivals* - a 7% decrease from 2011 and a 1% increase from 2010.

Strip: 39 daily *touch and go's* - a 3% increase from 2011 and a 9% increase from 2010.

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

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

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

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

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

Small: **Small** turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 6% 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 22% of the daily traffic.

¹⁰ See footnote #1.

¹¹ See footnote #1.

¹² See footnote #1.

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 2012, 72% departed to the **west** (from LAS's primary departure runways). This figure was 77% in 2011 and 65% in 2010.

Secondary: In 2012, 4% departed to the **south** (from LAS's secondary departure runways). This figure was 6% in 2011 and 9% in 2010.

Alternate 1: In 2012, 3% departed to the **north** (from LAS's alternate departure runways). This figure was not available in 2011, due to construction activities rendering this runway unavailable, and 3% in 2010.

Alternate 2: In 2012, 22% departed to the **east** (from LAS's alternate departure runways). This figure was 18% in 2011 and 24% in 2010. Increased heat and humidity in 2012 caused an increase in eastbound departures.

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

SVHS: In 2012, 94% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 2011 and 92% in 2010. (See July 2012 synopsis for specific location of the SVHS gate.)

Peace: In 2012, 95% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 93% in 2011 and 91% in 2010. (See July 2012 synopsis for specific location of the Peace gate.)

Pebble: In 2012, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 2011 and 94% in 2010. (See July 2012 synopsis for specific location of the Pebble gate.)

UNLV: In 2012, 72% 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 not applicable in 2011, due to construction activities rendering this gate unusable, and 84% in 2010. (See July 2012 synopsis for specific location of the UNLV gate.)

Boulder: In 2012, 95% of the large air carrier aircraft that departed to the north from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near **Boulder Highway**. This figure was 95% in 2011 and 94% in 2010. (See July 2012 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2012, 92% of the large air carrier aircraft destined to the Nevada Test 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 not available in 2011 or 2010. (See July 2012 synopsis for specific location of the Hualapai gate.)

Eastern: In 2012, 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 97% in 2011 and 95% in 2010. (See July 2012 synopsis for specific location of the Eastern gate.)

Hollywood: In 2012, 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 98% in 2011 and 94% in 2010. (See July 2012 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2012, 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 86% in 2011 and 59% in 2010. (See July 2012 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **typical** residential complaints, with the exception of 25 complaints from one household, flight activity, with the exception of 22% of departures to the east, fleet mix, and gate compliance, with the exception of heavy departures to the east.

September 2012: 69 total complaints – a 146% increase from 2011 and a 360% increase from 2010. On average, each caller (or household) issued 2.0 calls. The most calls received from one household totaled 16.

Calls by Community - (Exhibits 1 and 3)

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

Minority (between 10% and 50%): The *City of Henderson* communities issued 25 calls (36%). (See August 2012 synopsis of typical aircraft overflight impacts on this community.)

The *Paradise and Winchester* communities issued 20 calls (29%). (See July 2012 synopsis of typical aircraft overflight impacts on this community.)

The *Spring Valley* community issued 13 calls (19%). 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).

Repeat Caller Impact: One household issued 23% (16 calls) of all the calls received in September 2012.

Calls by Operation - (Exhibit 2)

LAS: 61% of the total calls received were due to *LAS* fixed-wing operations.
▪ 28% were due to departures to the east from Runways 07L and 07R.

VGT: 2% of the total calls received were due to *VGT* fixed-wing operations.

HND: 4% of the total calls received were due to *HND* fixed-wing operations.

Helis: 33% of the total calls received were due to *helicopter* operations (70% from one household).

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

Overall: 439 daily *departures*¹³ – a 10% decrease from 2011 and a 6% decrease from 2010.
▪ 79% of departures were to the west, 12% east, 5% south, and 5% north.
470 daily *arrivals* – a 3% decrease from 2011 and 1% increase from 2010.
▪ 78% of arrivals were from the east, 11% north, 9% south and 2% west.

Daytime: 373 daily *departures*¹⁴ – a 12% decrease from 2011 and 9% decrease from 2010.
▪ 76% of departures were to the west, 13% east, 6% south, and 5% north.
422 daily *arrivals* – a 3% decrease from 2011 and 1% decrease from 2010.
▪ 77% of arrivals were from the east, 11% north, 10% south, and 3% west.

Nighttime: 66 daily *departures*¹⁵ – a 2% increase from 2011 and 14% increase from 2010.
▪ 95% of departures were to the west, 2% south, 2% north, and 1% east.
49 daily *arrivals* – a 4% decrease from 2011 and 19% increase from 2010.
▪ 85% of arrivals were from the east, 14% north, 1% south, and 1% west.

Daytime vs. Nighttime: Approximately 85% 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: 88 daily *departures*¹⁶ – a 4% decrease from 2011 and an 8% increase from 2010.
▪ 66% of departures were to the south, 16% west, 10% east, and 8% north.
101 daily *arrivals* – a 6% increase from 2011 and a 7% increase from 2010.
▪ 71% of arrivals were from the north, 14% east, 13% south, and 3% west.

Daytime: 79 daily *departures*¹⁷ – a 5% decrease from 2011 and an 8% increase from 2010.
▪ 65% of departures were to the south, 16% west, 11% east, and 9% north.
94 daily *arrivals* – a 6% increase from 2011 and a 6% increase from 2010.
▪ 70% of arrivals were from the north, 14% east, 14% south, and 3% west.

Nighttime: 9 daily *departures*¹⁸ – an 8% increase from 2011 and an 8% increase from 2010.
▪ 82% of departures were to the south, 15% west, and 3% north.
7 daily *arrivals* – a 3% increase from 2011 and a 20% increase from 2010.
▪ 81% of arrivals were from the north, 13% east, 5% south, and 1% west.

Daytime vs. Nighttime: Approximately 90% of all *departures* and 93% of all *arrivals* occurred during the daytime hours.

¹³ See footnote #1.

¹⁴ See footnote #1.

¹⁵ See footnote #1.

¹⁶ See footnote #1.

¹⁷ See footnote #1.

¹⁸ See footnote #1.

Operations by Corridor for Helicopter Tours - (Exhibit 6)

Tropicana: 133 daily *departures* – a 1% decrease from 2011 and a 4% increase from 2010.

Charleston: 131 daily *arrivals* - a 1% decrease from 2011 and a 3% increase from 2010.

Strip: 42 daily *touch and go's* - a 5% increase from 2011 and a 16% increase from 2010.

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 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 62% 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 4% 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 almost no operations per day.

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

Primary: In 2012, 78% departed to the *west* (from LAS's primary departure runways). This figure was 86% in 2011 and 74% in 2010.

Secondary: In 2012, 5% departed to the *south* (from LAS's secondary departure runways). This figure was 6% in 2011 and 13% in 2010.

Alternate 1: In 2012, 5% departed to the *north* (from LAS's alternate departure runways). This figure was 5% in 2011 and 4% in 2010.

Alternate 2: In 2012, 12% departed to the *east* (from LAS's alternate departure runways). This figure was less than 4% in 2011 and 9% in 2010.

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

- SVHS:** In 2012, 94% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 93% in 2011 and 92% in 2010. (See July 2012 synopsis for specific location of the SVHS gate.)
- Peace:** In 2012, 96% of the large air carrier aircraft (excluding those destined to the Nevada Test 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 94% in 2011 and 92% in 2010. (See July 2012 synopsis for specific location of the Peace gate.)
- Pebble:** In 2012, 98% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 96% in 2011 and 96% in 2010. (See July 2012 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2012, 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 79% in 2011 and 80% in 2010. (See July 2012 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2012, 98% of the large air carrier aircraft that departed to the north from Runways 07L or 07R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 96% in 2011 and 96% in 2010. (See July 2012 synopsis for specific location of the Boulder Hwy. gate.)
- Hualapai:** In 2012, 93% of the large air carrier aircraft destined to the Nevada Test 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 not available in 2011 or 2010. (See July 2012 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2012, 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 2011 and 97% in 2010. (See July 2012 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2012, 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 96% in 2011 and 97% in 2010. (See July 2012 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2012, 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 2011 and 61% in 2010. (See July 2012 synopsis for specific location of the Stratosphere gate.)

The information denoted in this monthly summary represents **typical** residential complaints, with the exception of 16 complaints from one household, flight activity, fleet mix, and gate compliance.

Other Notable Issues

Helicopter Operator Users Meeting: On September 20, 2012, DOA staff members met with FAA, and local helicopter tour operators to discuss noise complaints tied to helicopter operations, route compliance, and operational growth. The FAA, in conjunction with the Transportation Security Agency (TSA) made a special presentation outlining mandatory airspace and traffic modifications associated with a short-term presidential visit. Airspace restrictions associated with this visit directly impacted helicopter tour operations. As a result, the Jean Airport was utilized from October 1, 2012 to October 3, 2012 to continue tours during the presidential visit. All helicopters and fixed-wing aircraft conducting tours during the presidential visit were provided an alternate route that complied with the airspace restrictions.

Senior Housing Development in the AE-65: On July 3, 2012, against strong opposition from the Department of Aviation (DOA), the Henderson City Council unanimously approved a 252-unit senior housing development located northeast of Sunset Avenue and Green Valley Parkway. This development will be impacted by significant noise levels from aircraft arriving at and departing from McCarran International Airport (LAS) and will be located within a significant noise exposure area (65 DNL) - which the Federal Aviation Administration (FAA), and the United States Department of Housing and Urban Development (HUD), and other federal agencies have determined is not compatible with residential development. Although sound attenuation and noise disclosure conditions were included in the approval of this project, as required by the Henderson Development Code, residents of this development will not benefit from these mitigation measures when utilizing the courtyards; during periods of pleasant weather conditions when windows and doors are often left open; or when walking to neighboring businesses. Future residents of the development who issue noise complaints will be informed that the developer and the City of Henderson were notified of the expected impact caused by airport operations and that the City of Henderson opted to approve the project within the official/adopted noise environs despite these facts.

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 19, 2012

Page 15 of 30

Distribution: Commissioner Brager, Chair
Commissioner Sisolak, Vice-Chair
Commissioner Collins
Commissioner Weekly
Rosemary Vassiliadis
Donald G. Burnette
Ralph LePore
Harry Waters
Teresa Motley
Cecil Johnson
Alan Pinkerton
Dan Kezar
Linda Healey
Tucker Field
Maureen Merry-Lamoureux

Stephen J. Lloyd (FAA TRACON)
Jim Burgan (FAA ATC)
Jon Holman (FAA ATC)
Charlie Halterman (HND Tower)
Peter Yiakof (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)
Neal Phillips (Metro Wash. Air Auth.)
Frank Fiori (CNLV)
Michelle Plawecki (Detroit Metro Airport)
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
Commissioner Scow
Joe Kubacki
E. Lee Thomson
Sam Ingalls
Chris Jones
Dawn Holden
Barbara Bolton
Jeff Jacquart
Charlie Hall
Ben Czyzewski
Dennis Anderson
Tom Peterson
Mark Silverstein
Donna Bergstrom
Benedict Czyzewski

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 2012

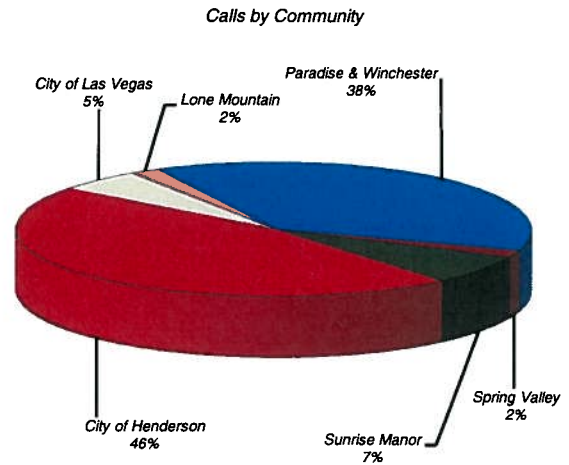
Community	No. of Calls in 2012	No. of Callers in 2012	No. of Calls in 2011	No. of Calls in 2010
City of Boulder City				
City of Henderson	26	8	2	5
City of Las Vegas	3	1	1	4
City of North Las Vegas				
Enterprise			3	2
Lone Mountain	1	1	1	
Paradise & Winchester	21	11	1	21
Spring Valley	1	1	5	
Summerlin South				
Sunrise Manor	4	1		
Whitney				
Location unknown				
Overall Total	56	23	13	32

Difference between 2012 and 2011 Total Calls: 331%

Difference between 2012 and 2010 Total Calls: 75%

Average Number of Calls per Caller: 2.4

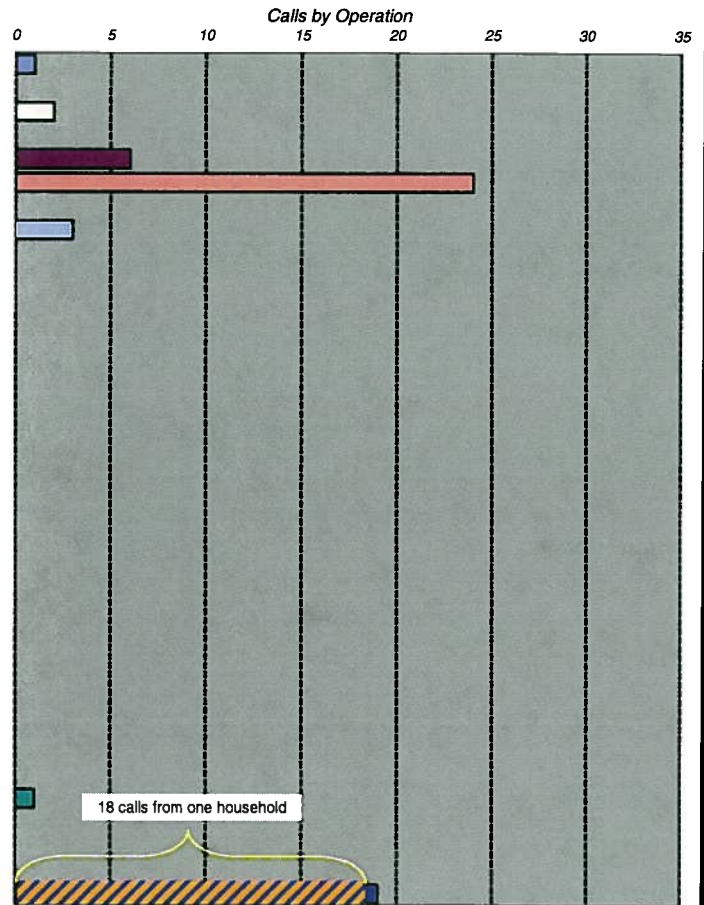
Most calls received from one household: 18



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

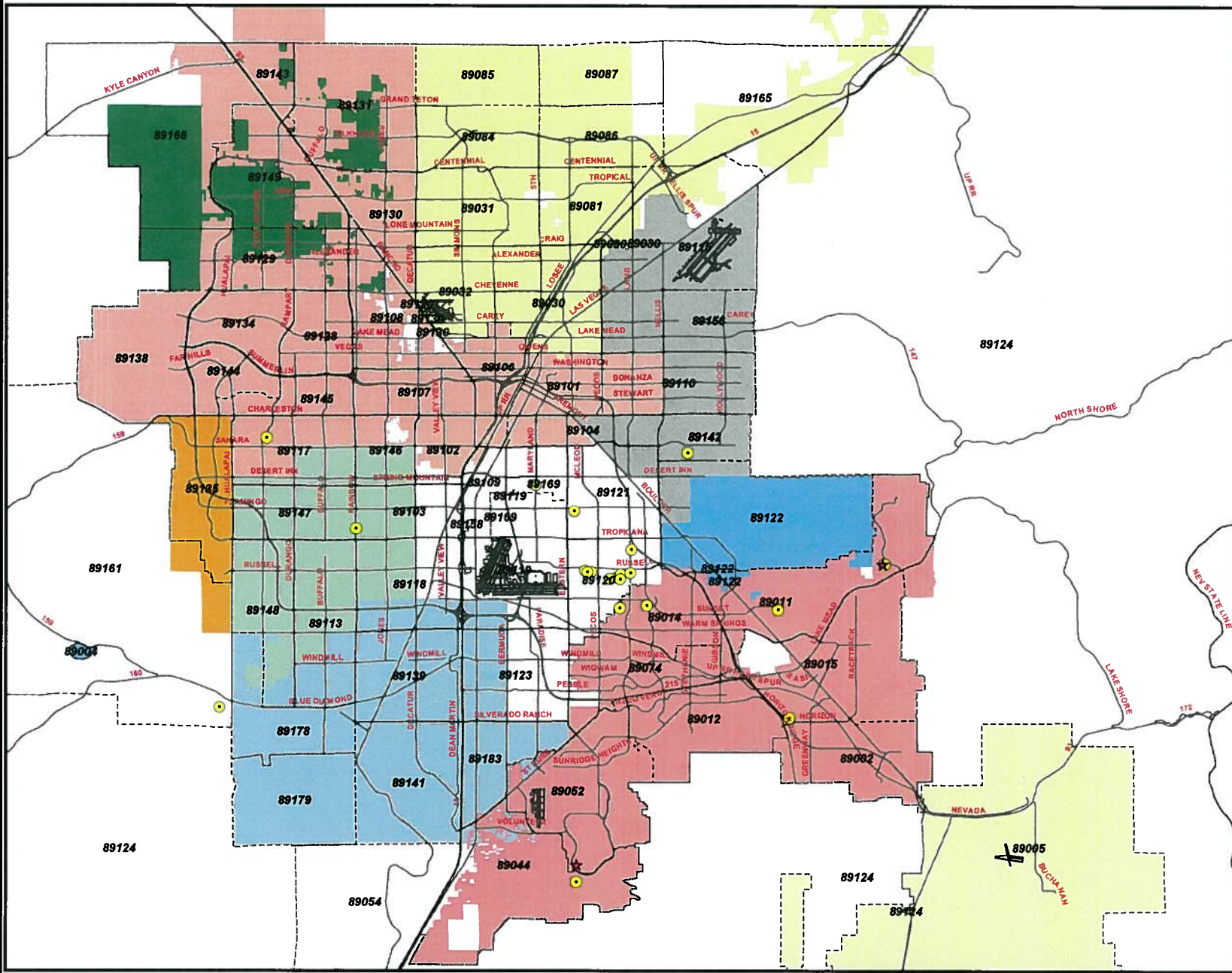
Exhibit 2: Noise Complaint Calls by Type of Operation - July 2012

Operation	No. of Calls in 2012	Percent of Overall Total	No. of Calls in 2011	No. of Calls in 2010
LAS 01R/L Arrivals	1	1.8%		
LAS 07R/L Arrivals				
LAS 19R/L Arrivals	2	3.6%		
LAS 25R/L Arrivals				
LAS 01R/L Departures	6	10.7%	1	
LAS 07R/L Departures	24	42.9%	2	21
LAS 19R/L Departures			3	
LAS 25R/L Departures	3	5.4%	4	6
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	36	64.3%	10	27
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	1.8%		3
HND Other				
HND Total	1	1.8%	0	3
Helicopters**	19	33.9%	3	2
Overall Total	56	100%	13	32



** 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 2012



Legend

July 2012
Total Complaints: 56

- Aircraft Complaints Received 37 Mapped 37
- ★ Helicopter Complaints Received 19 Mapped 19

- 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

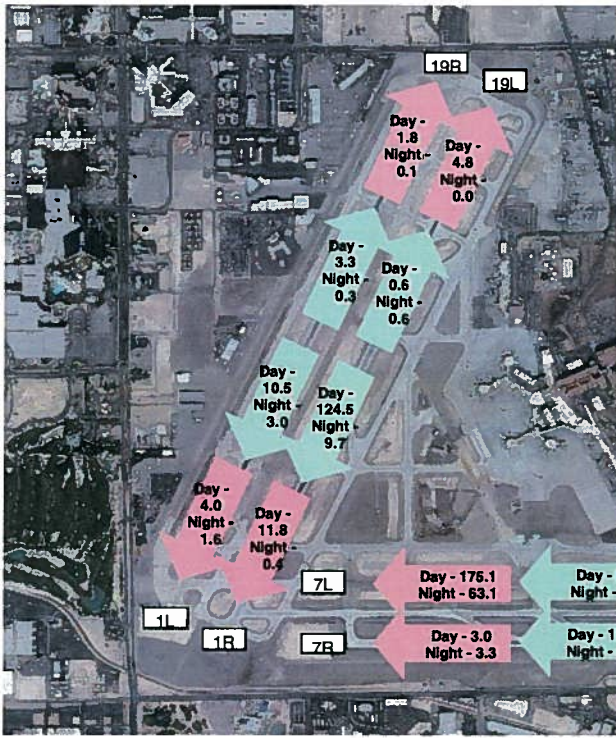
Department of Aviation
I.S. Division
Geographic Information Systems

Oct 17, 2012

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

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Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - July 2012

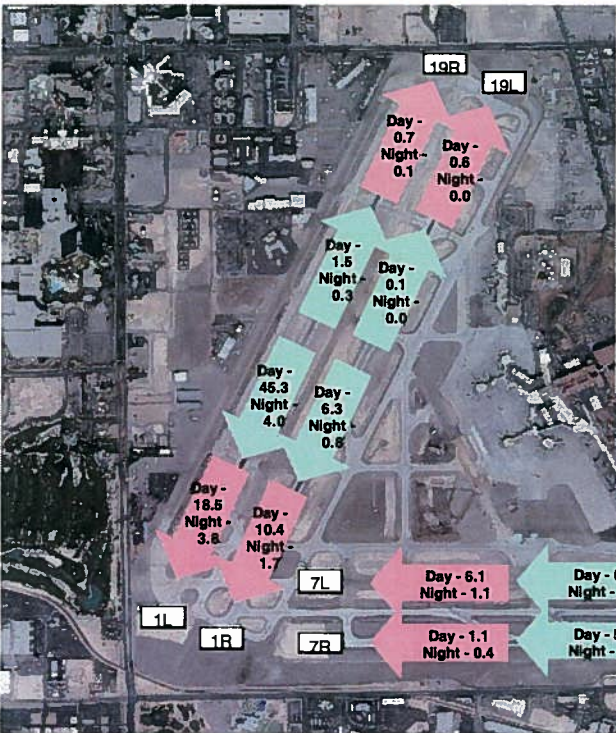


Year	2012		2011		2010	
Daytime Departures	370	82%	416	84%	412	87%
Nighttime Departures	80	18%	80	16%	63	13%
Total Departures	450	100%	496	100%	475	100%
Daytime Arrivals	417	87%	428	86%	424	90%
Nighttime Arrivals	64	13%	68	14%	48	10%
Total Arrivals	481	100%	496	100%	472	100%

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-9%	-11%	0%
Depts. 2012 vs 2010	-5%	-10%	27%
Arrivals 2012 vs 2011	-3%	-3%	-5%
Arrivals 2012 vs 2010	2%	-2%	34%

* 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** - July 2012



Year	2012		2011		2010	
Daytime Departures	65	89%	70	90%	68	89%
Nighttime Departures	8	11%	8	10%	8	11%
Total Departures	73	100%	78	100%	76	100%
Daytime Arrivals	77	92%	76	93%	78	94%
Nighttime Arrivals	7	8%	6	7%	5	6%
Total Arrivals	84	100%	82	100%	83	100%

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-6%	-7%	-3%
Depts. 2012 vs 2010	-4%	-4%	-3%
Arrivals 2012 vs 2011	2%	1%	13%
Arrivals 2012 vs 2010	1%	-1%	36%

** 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 - July 2012

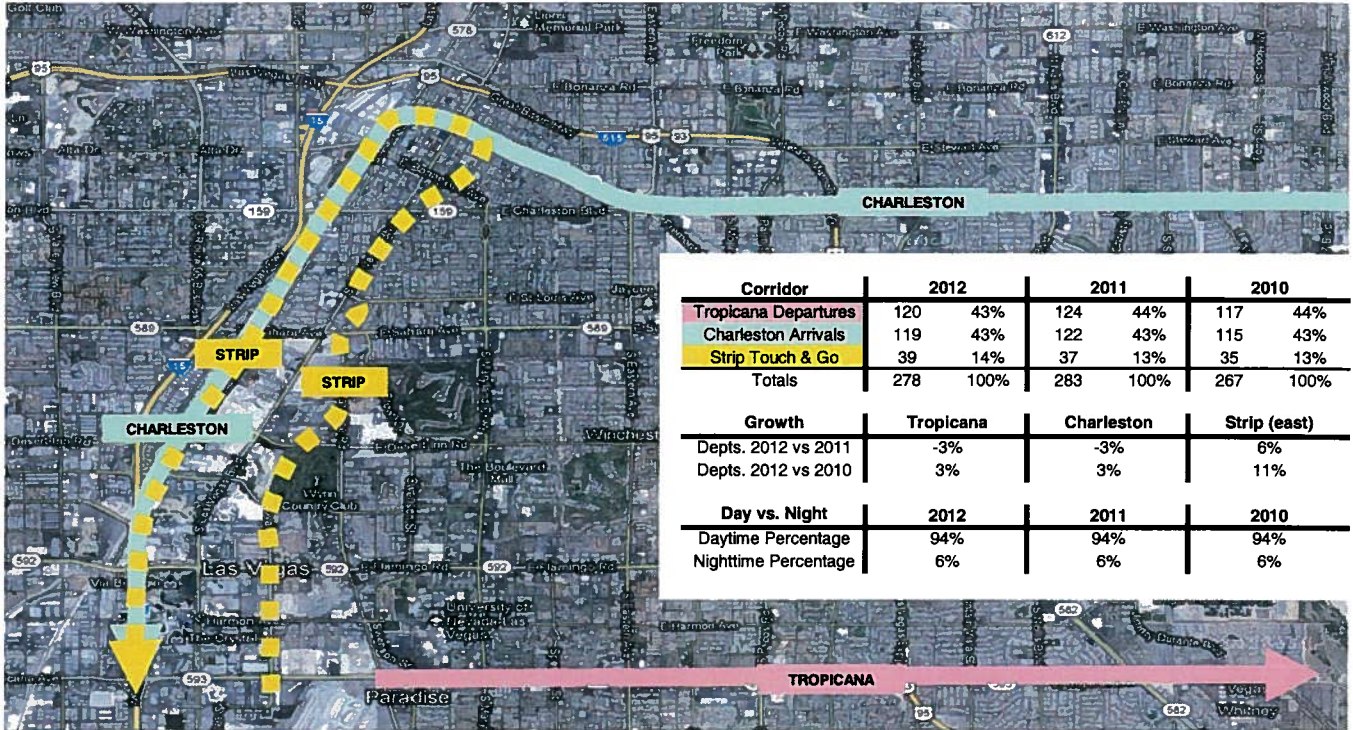
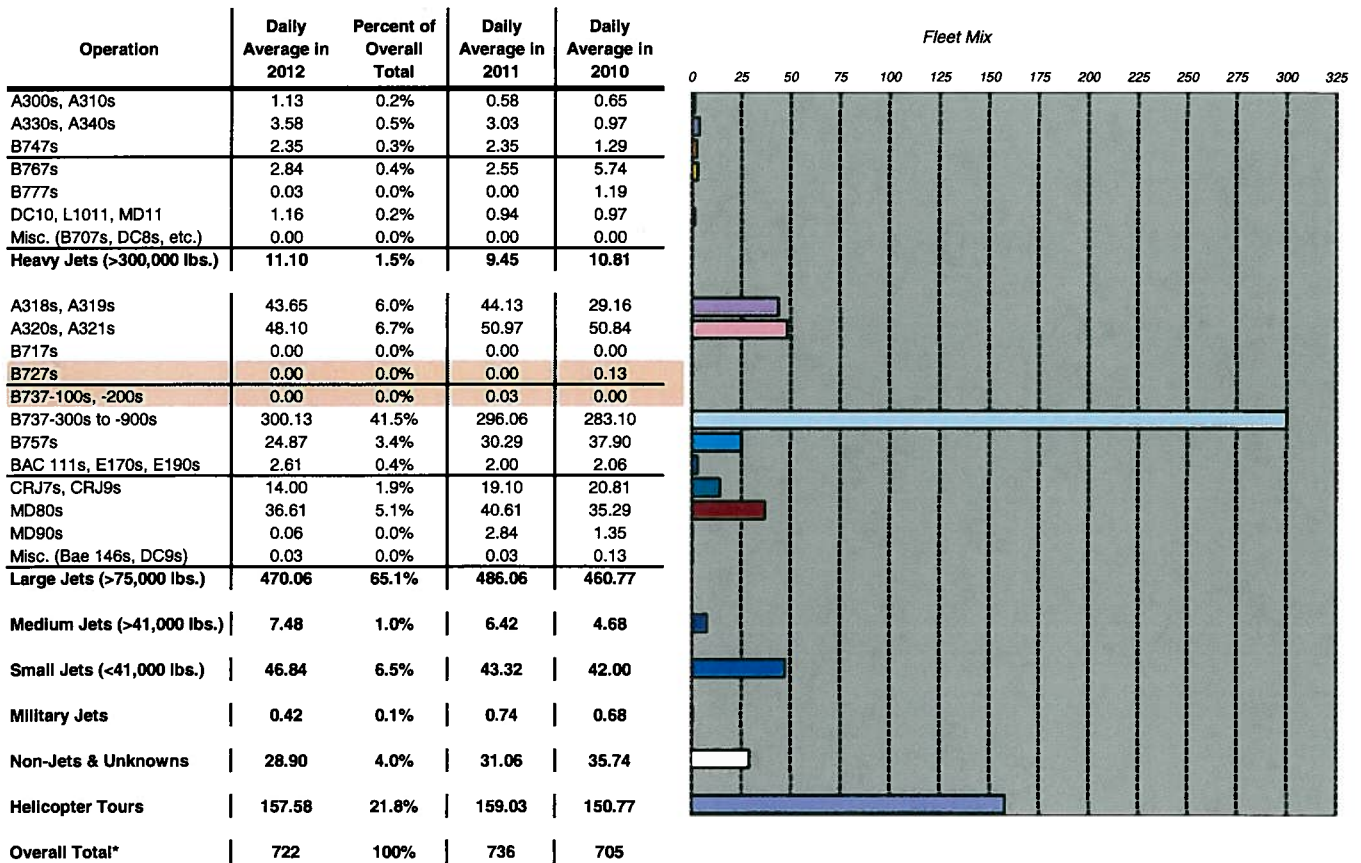


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - July 2012



* 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 2012 to 2010

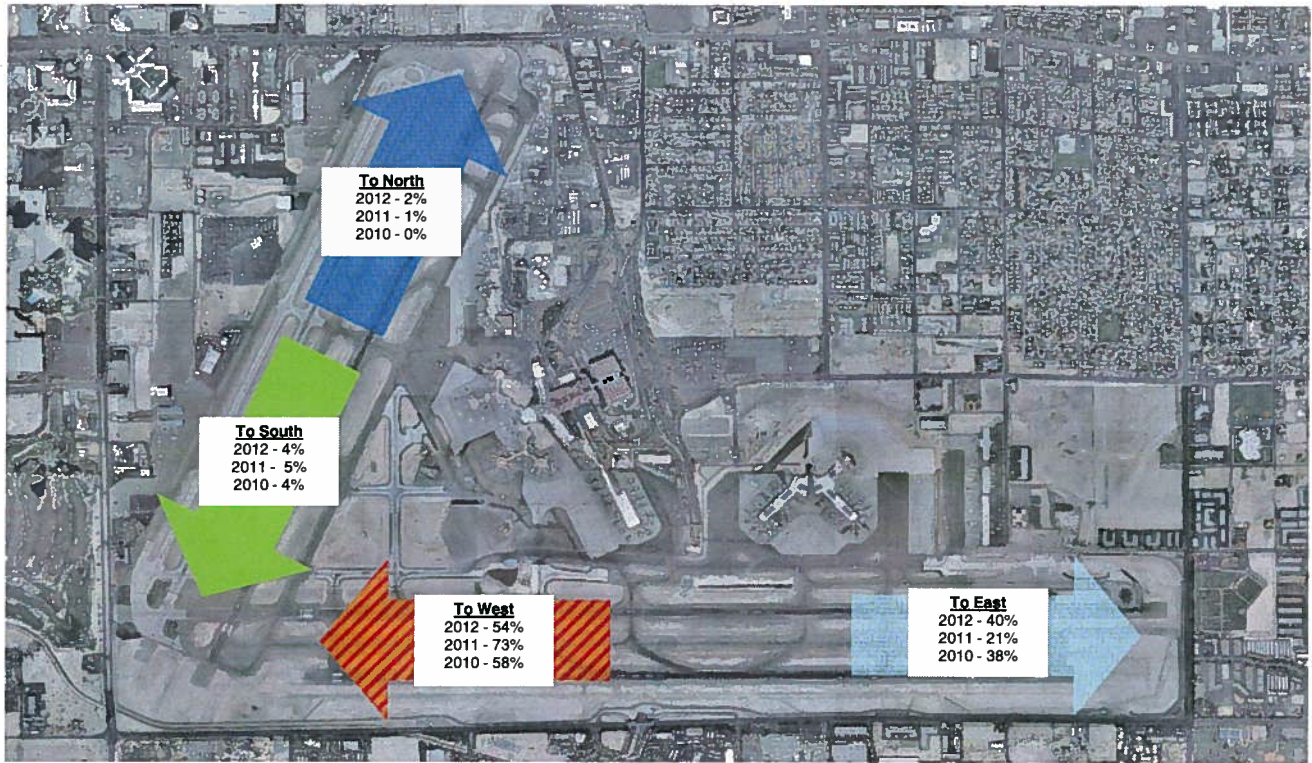
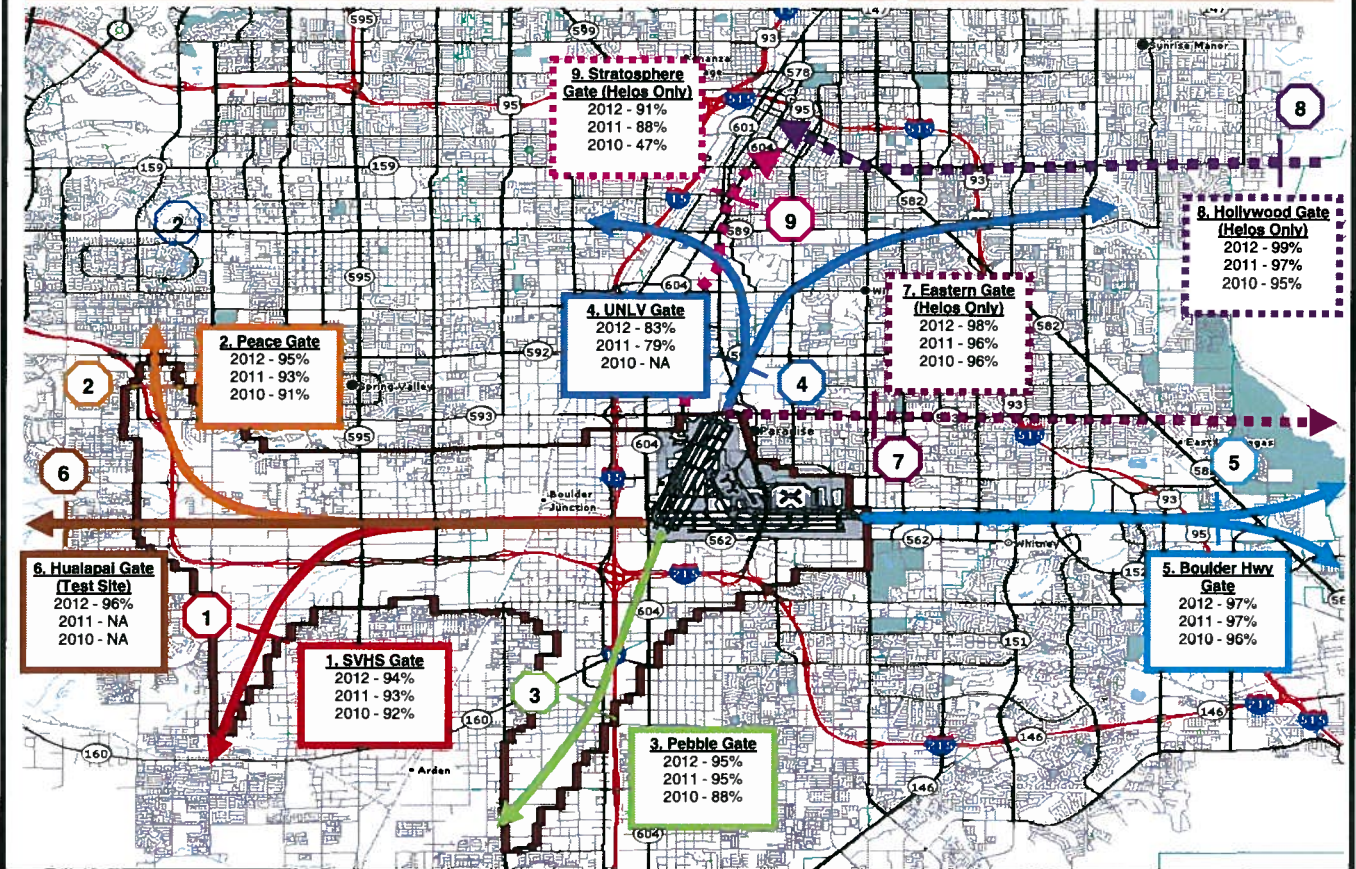


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - July 2012



* 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, 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* - August 2012

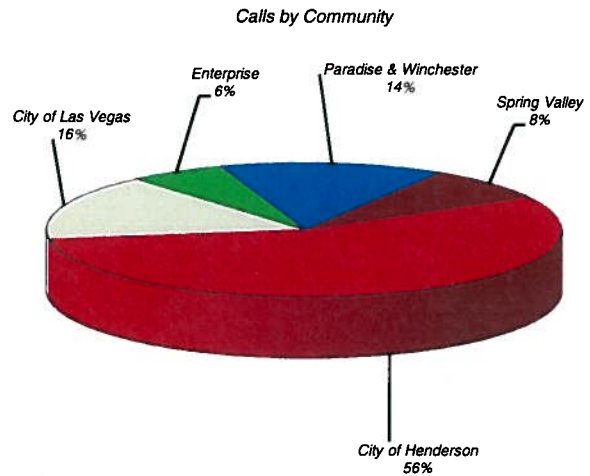
Community	No. of Calls in 2012	No. of Callers in 2012	No. of Calls in 2011	No. of Calls in 2010
City of Boulder City			2	2
City of Henderson	28	4	2	1
City of Las Vegas	8	2	2	1
City of North Las Vegas				1
Enterprise	3	3	2	5
Lone Mountain			1	
Paradise & Winchester	7	6	1	28
Spring Valley	4	4	2	9
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	50	19	10	46

Difference between 2012 and 2011 Total Calls: 400%

Difference between 2012 and 2010 Total Calls: 9%

Average Number of Calls per Caller: 2.6

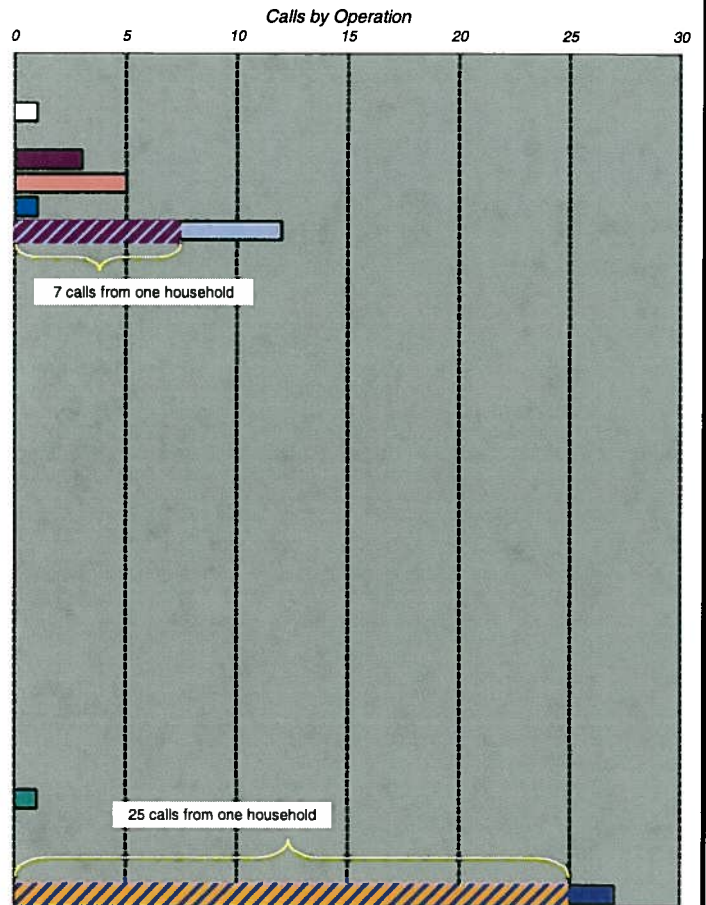
Most calls received from one household: 25



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

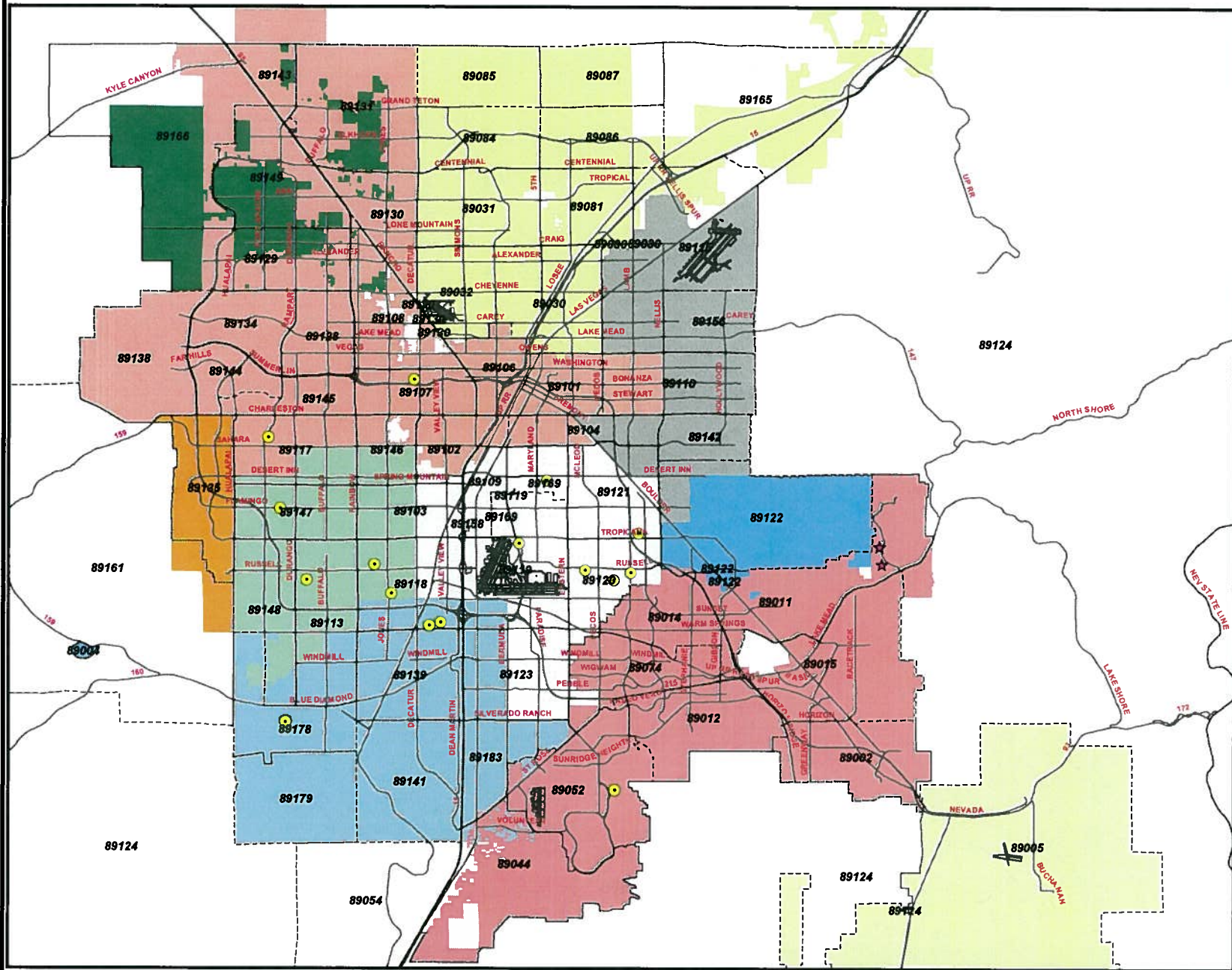
Exhibit 2: Noise Complaint Calls by Type of Operation - August 2012

Operation	No. of Calls in 2012	Percent of Overall Total	No. of Calls in 2011	No. of Calls in 2010
LAS 01R/L Arrivals				1
LAS 07R/L Arrivals				1
LAS 19R/L Arrivals	1	2.0%		
LAS 25R/L Arrivals				
LAS 01R/L Departures	3	6.0%	1	2
LAS 07R/L Departures	5	10.0%		27
LAS 19R/L Departures	1	2.0%		3
LAS 25R/L Departures	12	24.0%	4	2
LAS Run-ups				
LAS GA			1	
LAS Other				
LAS Total	22	44.0%	6	36
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA				1
VGT Other				
VGT Total	0	0.0%	0	1
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	2.0%	3	
HND Other				
HND Total	1	2.0%	3	0
Helicopters**	27	54.0%	1	9
Overall Total	50	100%	10	46



** 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 2012



Legend

August 2012
Total Complaints: 50

- Aircraft Complaints Received 23 Mapped 23
- ★ Helicopter Complaints Received 27 Mapped 27
- 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

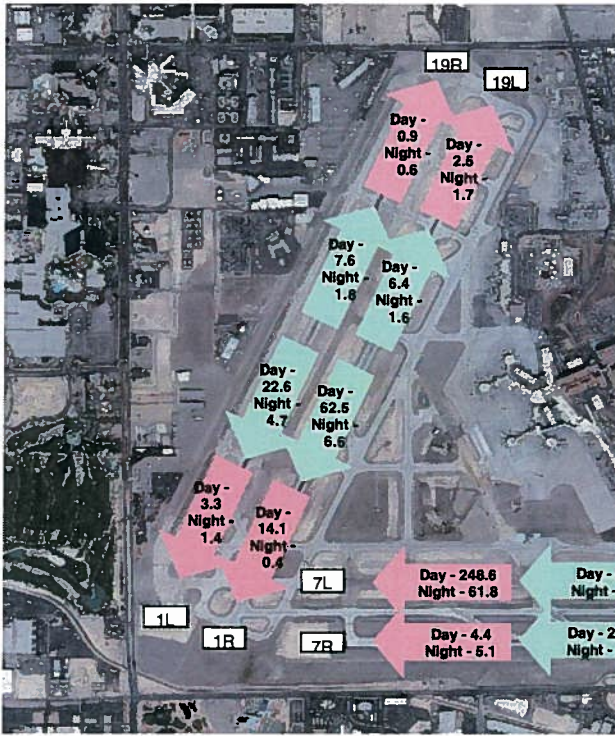
Department of Aviation
I.S. Division
Geographic Information Systems

Oct 17, 2012

This information is for display purposes only. We do not warrant as to the accuracy of the data referenced herein.

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Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - August 2012

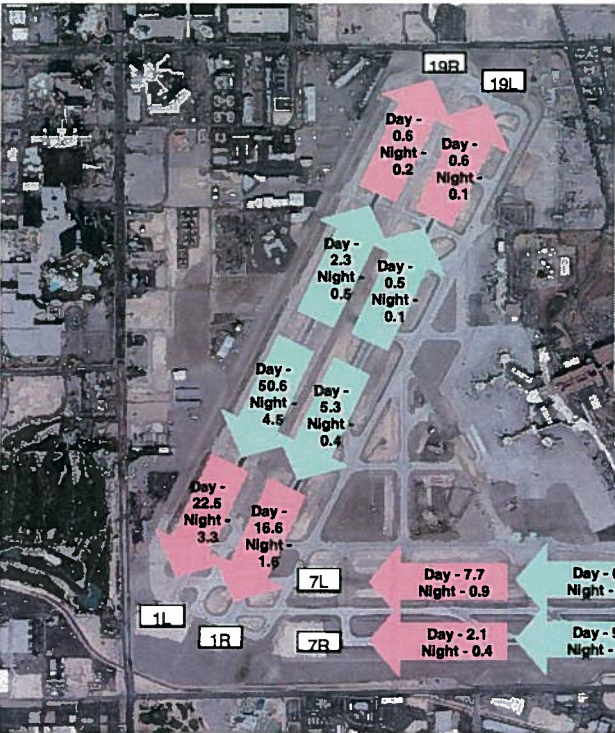


Year	2012		2011		2010	
Daytime Departures	364	82%	416	85%	411	87%
Nighttime Departures	79	18%	74	15%	62	13%
Total Departures	443	100%	490	100%	473	100%
Daytime Arrivals	419	87%	427	87%	423	90%
Nighttime Arrivals	62	13%	62	13%	46	10%
Total Arrivals	480	100%	489	100%	469	100%

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-10%	-12%	6%
Depts. 2012 vs 2010	-6%	-11%	27%
Arrivals 2012 vs 2011	-2%	-2%	-1%
Arrivals 2012 vs 2010	2%	-1%	34%

* 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** - August 2012



Year	2012		2011		2010	
Daytime Departures	64	90%	73	91%	73	90%
Nighttime Departures	7	10%	7	9%	8	10%
Total Departures	71	100%	80	100%	81	100%
Daytime Arrivals	77	91%	78	93%	84	92%
Nighttime Arrivals	7	9%	6	7%	7	8%
Total Arrivals	84	100%	84	100%	91	100%

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-12%	-13%	-4%
Depts. 2012 vs 2010	-13%	-13%	-16%
Arrivals 2012 vs 2011	0%	-2%	23%
Arrivals 2012 vs 2010	-8%	-9%	6%

** 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 - August 2012

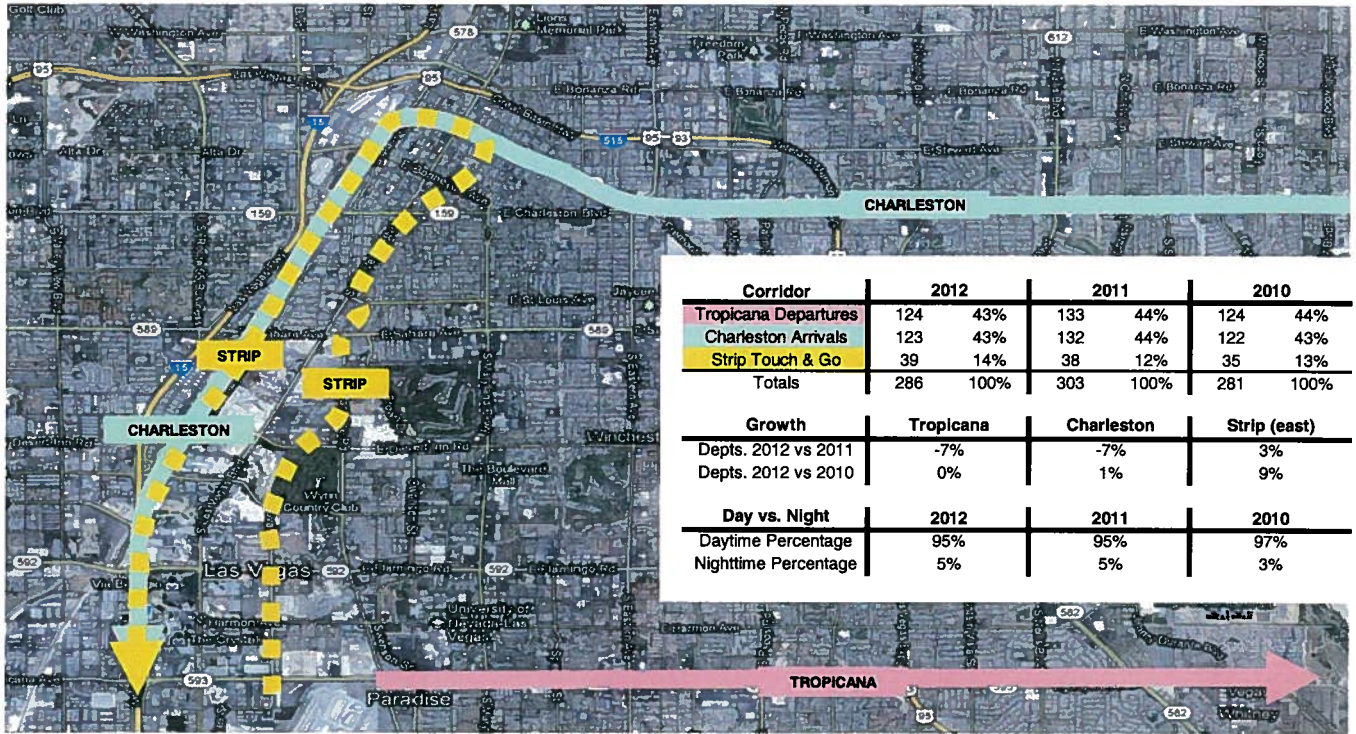
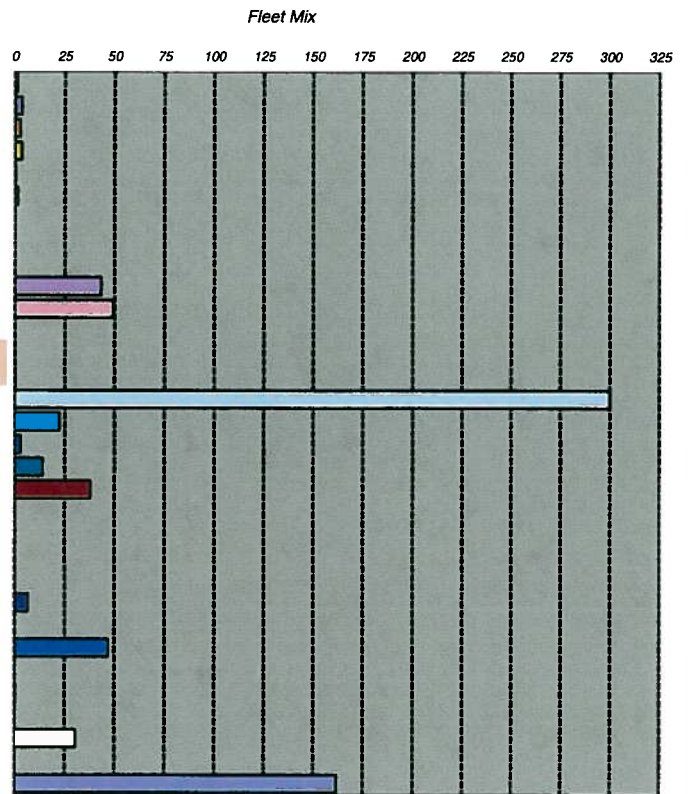


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - August 2012

Operation	Daily Average In 2012	Percent of Overall Total	Daily Average In 2011	Daily Average In 2010
A300s, A310s	1.03	0.1%	0.58	0.74
A330s, A340s	3.42	0.5%	3.19	1.03
B747s	2.45	0.3%	2.32	1.03
B767s	3.29	0.5%	2.61	5.03
B777s	0.06	0.0%	0.06	1.19
DC10, L1011, MD11	1.35	0.2%	1.03	1.03
Misc. (B707s, DC8s, etc.)	0.00	0.0%	0.00	0.00
Heavy Jets (>300,000 lbs.)	11.61	1.6%	9.81	10.06
A318s, A319s	43.03	5.9%	43.71	28.68
A320s, A321s	49.23	6.8%	49.39	50.00
B717s	0.00	0.0%	0.00	0.00
B727s	0.00	0.0%	0.13	0.03
B737-100s, -200s	0.03	0.0%	0.00	0.06
B737-300s to -900s	300.03	41.4%	299.61	283.55
B757s	22.13	3.0%	28.32	41.06
BAC 111s, E170s, E190s	2.71	0.4%	2.00	2.10
CRJ7s, CRJ9s	13.74	1.9%	18.23	20.87
MD80s	37.58	5.2%	33.90	32.23
MD90s	0.00	0.0%	3.23	0.74
Misc. (Bae 146s, DC9s)	0.03	0.0%	0.06	0.06
Large Jets (>75,000 lbs.)	468.52	64.6%	478.58	459.39
Medium Jets (>41,000 lbs.)	6.45	0.9%	6.00	4.84
Small Jets (<41,000 lbs.)	46.58	6.4%	45.16	45.77
Military Jets	0.39	0.1%	0.39	0.52
Non-Jets & Unknowns	30.42	4.2%	32.71	39.61
Helicopter Tours	161.58	22.3%	169.58	157.35
Overall Total*	726	100%	742	718



* 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* - August 2012 to 2010

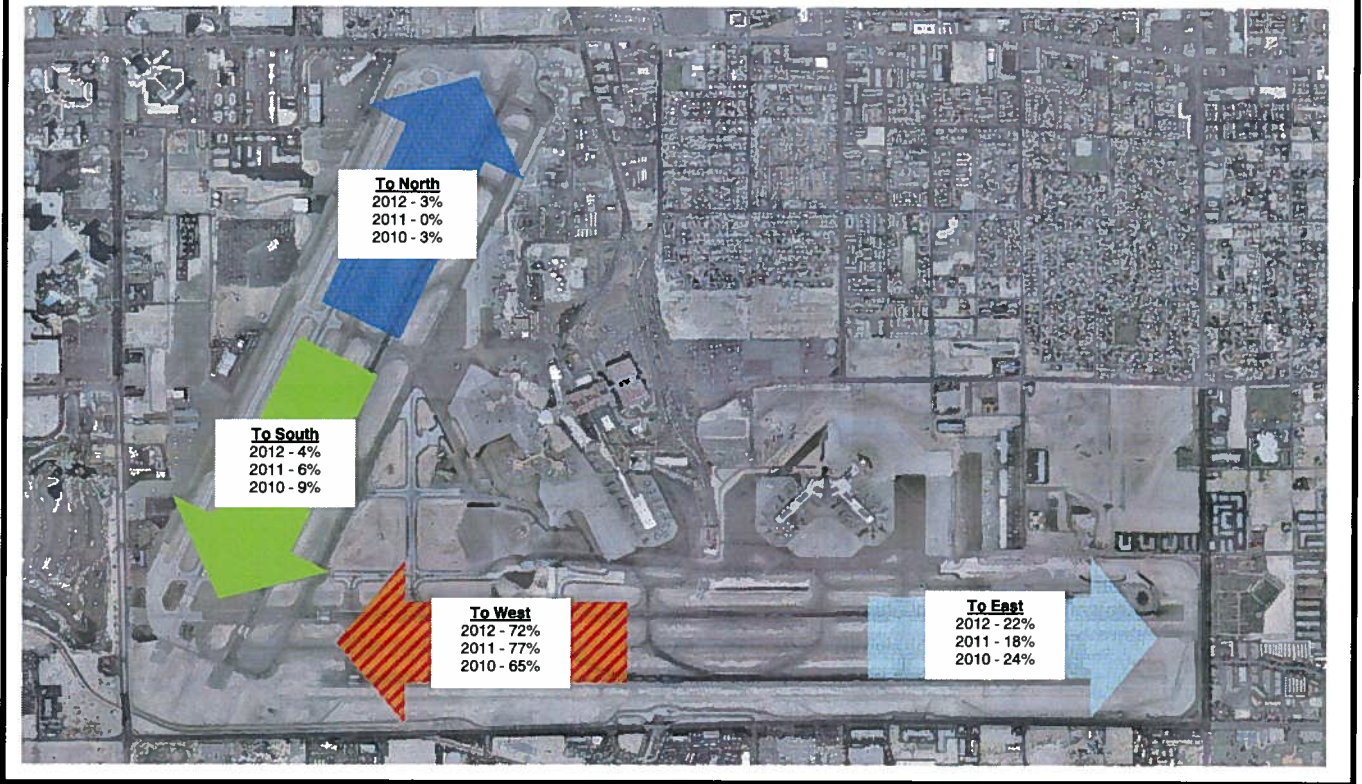
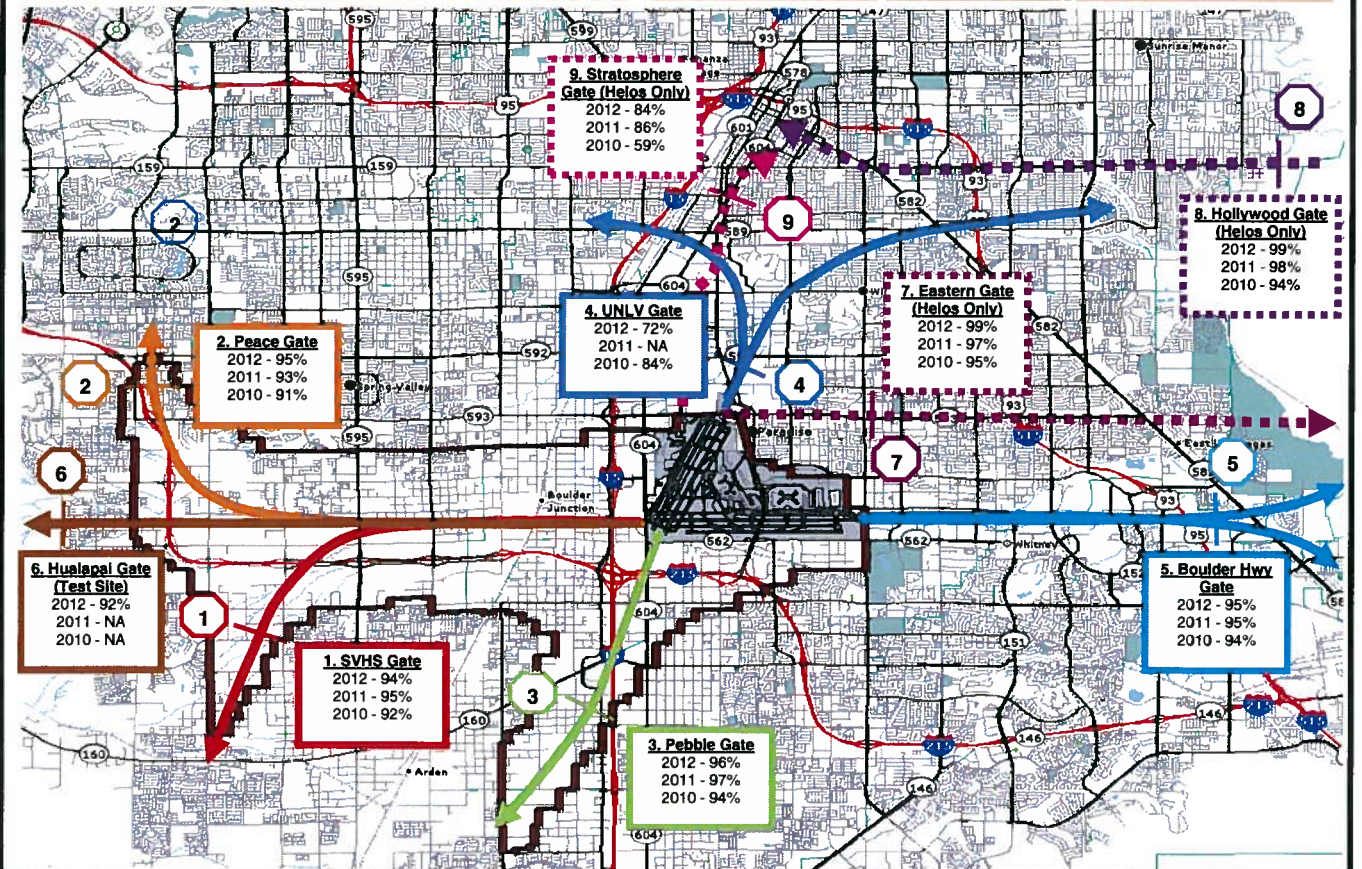


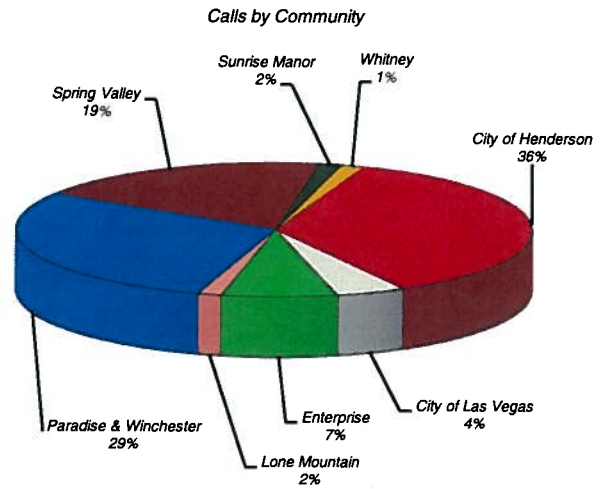
Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - August 2012



* 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, A 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 2012

Community	No. of Calls in 2012	No. of Callers in 2012	No. of Calls in 2011	No. of Calls in 2010
City of Boulder City				
City of Henderson	25	8	12	1
City of Las Vegas	3	1	3	8
City of North Las Vegas				
Enterprise	5	3	2	5
Lone Mountain	1	1		
Paradise & Winchester	20	16	5	1
Spring Valley	13	3	4	
Summerlin South				
Sunrise Manor	1	1	1	
Whitney	1	1	1	
Location unknown				
Overall Total	69	34	28	15



Difference between 2012 and 2011 Total Calls: 146%

Difference between 2012 and 2010 Total Calls: 360%

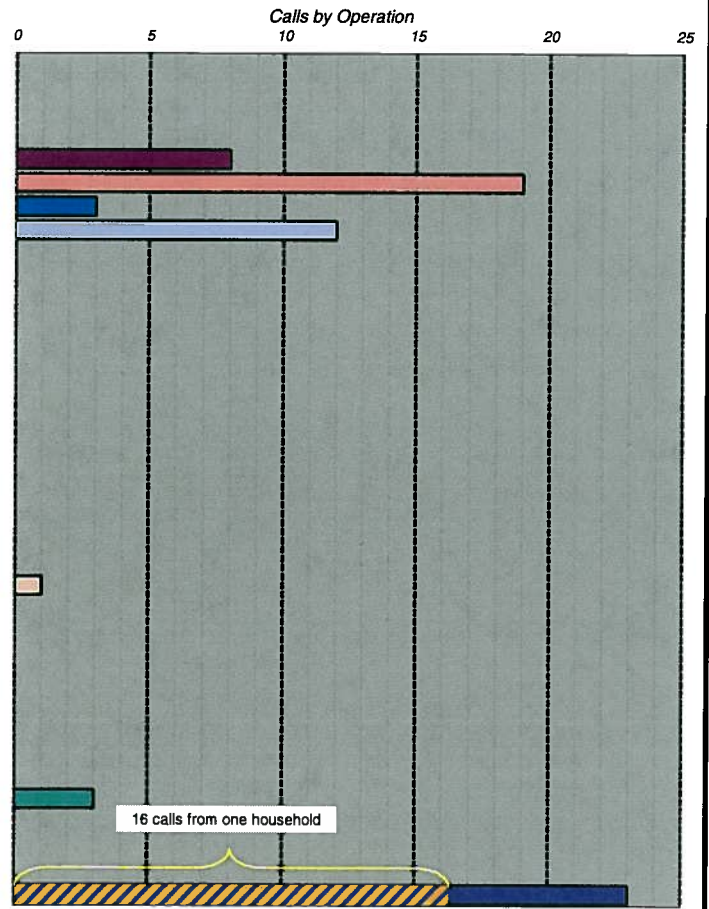
Average Number of Calls per Caller: 2.0

Most calls received from one household: 16

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

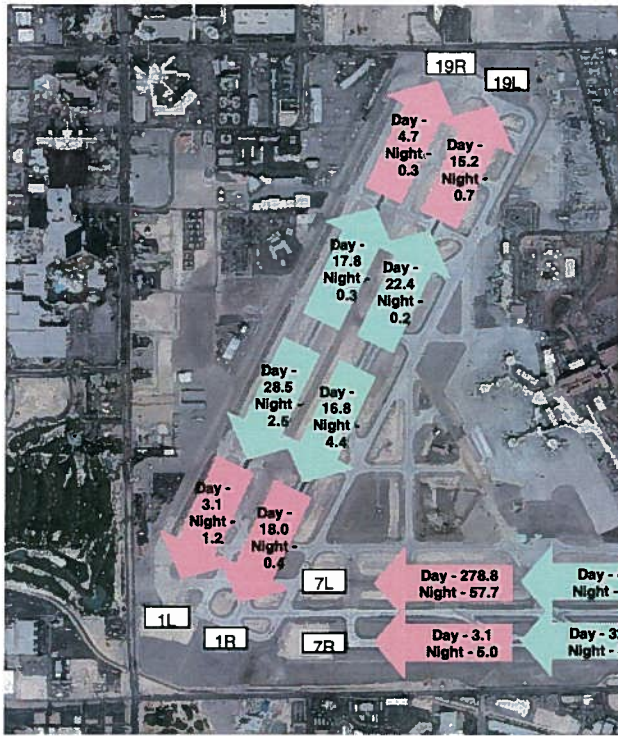
Exhibit 2: Noise Complaint Calls by Type of Operation - September 2012

Operation	No. of Calls in 2012	Percent of Overall Total	No. of Calls in 2011	No. of Calls in 2010
LAS 01R/L Arrivals				2
LAS 07R/L Arrivals				
LAS 19R/L Arrivals				
LAS 25R/L Arrivals				
LAS 01R/L Departures	8	11.6%	8	1
LAS 07R/L Departures	19	27.5%	1	1
LAS 19R/L Departures	3	4.3%	1	3
LAS 25R/L Departures	12	17.4%	5	8
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	42	60.9%	15	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	1.4%		
VGT Other				
VGT Total	1	1.4%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	3	4.3%	1	
HND Other				
HND Total	3	4.3%	1	0
Helicopters**	23	33.3%	12	0
Overall Total	69	100%	28	15



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

Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - September 2012

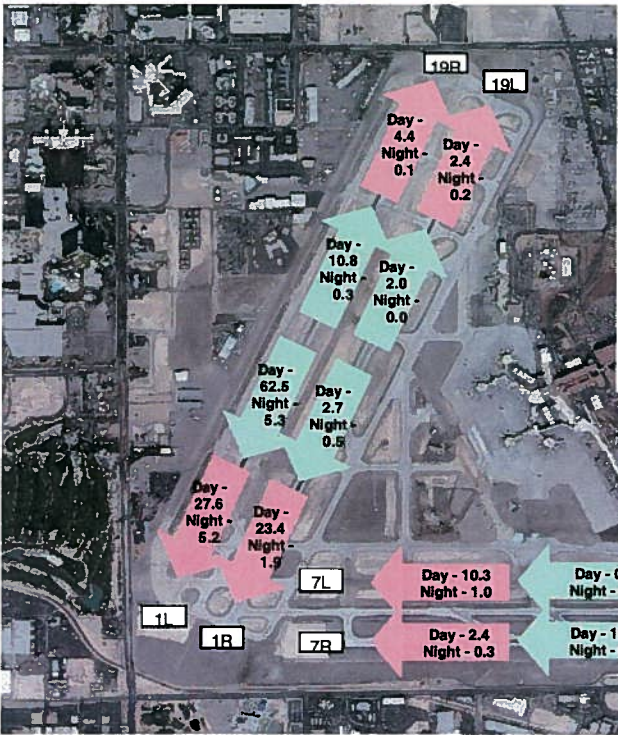


Year	2012		2011		2010	
Daytime Departures	373	85%	423	87%	409	88%
Nighttime Departures	66	15%	65	13%	58	12%
Total Departures	439	100%	488	100%	467	100%
Daytime Arrivals	422	90%	436	90%	425	91%
Nighttime Arrivals	49	10%	51	10%	41	9%
Total Arrivals	470	100%	487	100%	466	100%

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-10%	-12%	2%
Depts. 2012 vs 2010	-6%	-9%	14%
Arrivals 2012 vs 2011	-3%	-3%	-4%
Arrivals 2012 vs 2010	1%	-1%	19%

* 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 - September 2012**



Year	2012		2011		2010	
Daytime Departures	79	90%	83	91%	73	90%
Nighttime Departures	9	10%	8	9%	8	10%
Total Departures	88	100%	91	100%	81	100%
Daytime Arrivals	94	93%	88	93%	88	94%
Nighttime Arrivals	7	7%	7	7%	6	6%
Total Arrivals	101	100%	95	100%	94	100%

Growth	Overall	Daytime	Nighttime
Depts. 2012 vs 2011	-4%	-5%	8%
Depts. 2012 vs 2010	8%	8%	8%
Arrivals 2012 vs 2011	6%	6%	3%
Arrivals 2012 vs 2010	7%	6%	20%

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

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours - September 2012

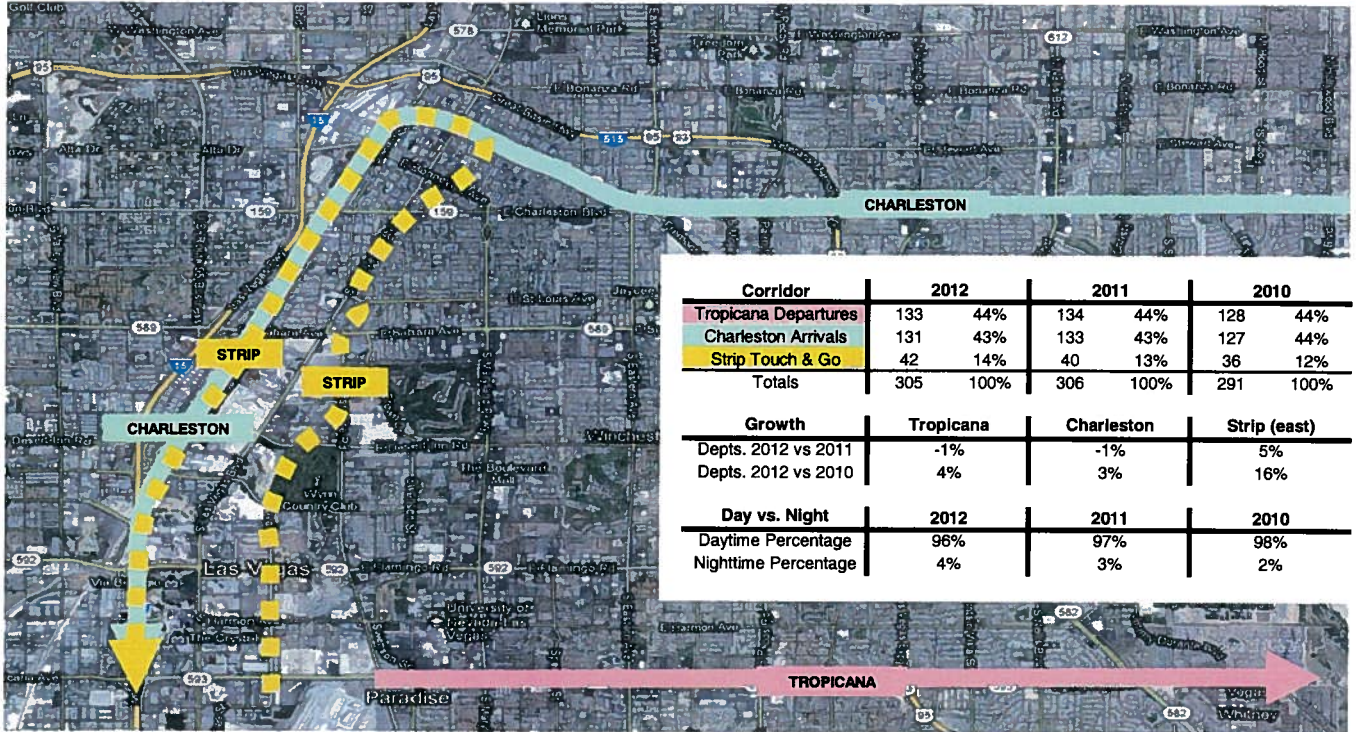
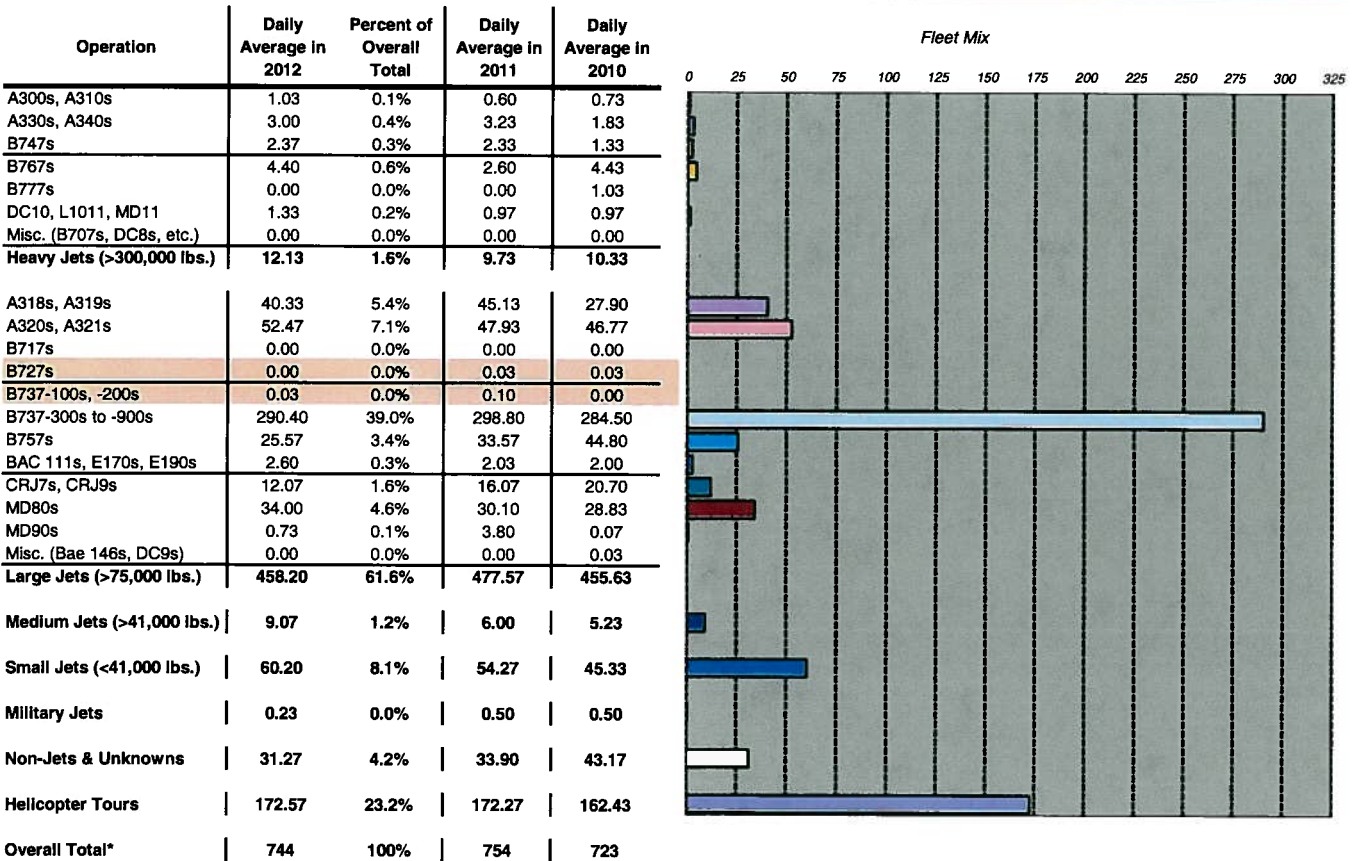


Exhibit 7: LAS Aircraft Arrival Fleet Mix* - September 2012



* 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 2012 to 2010

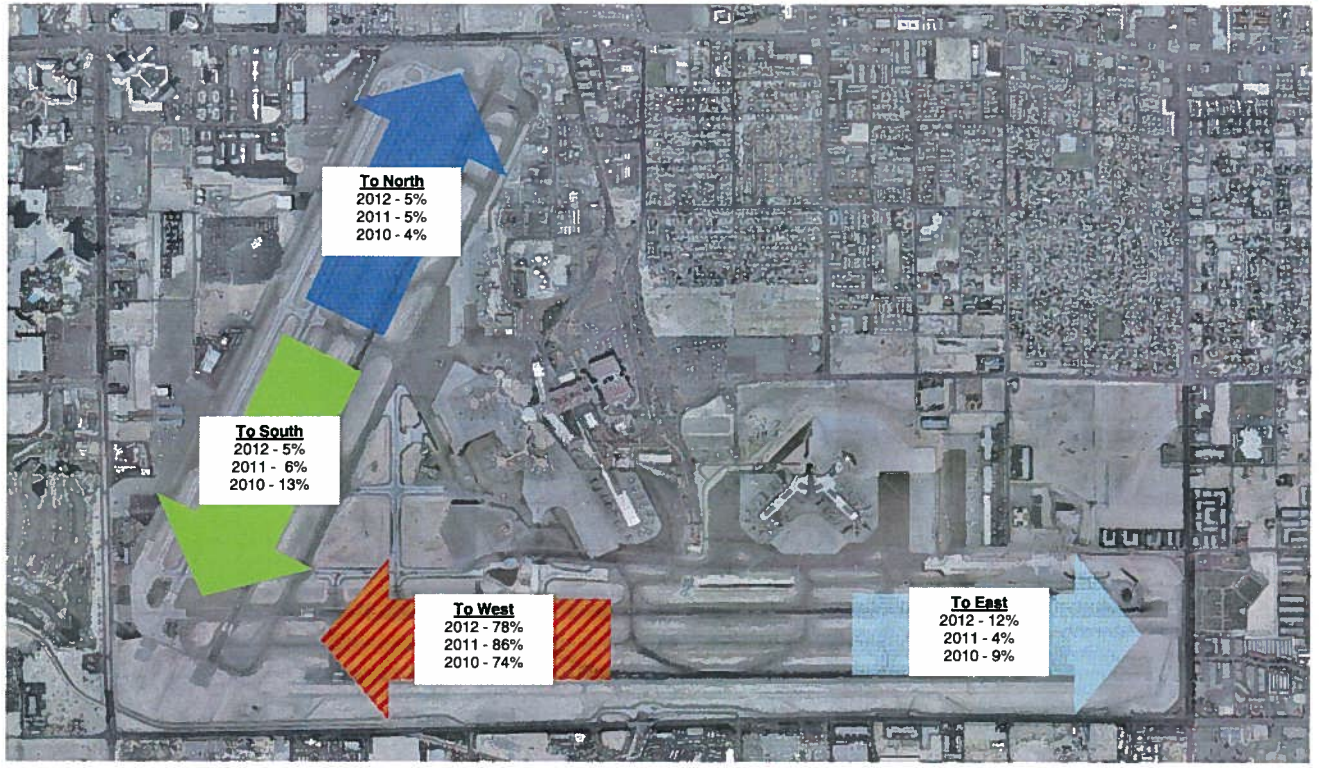
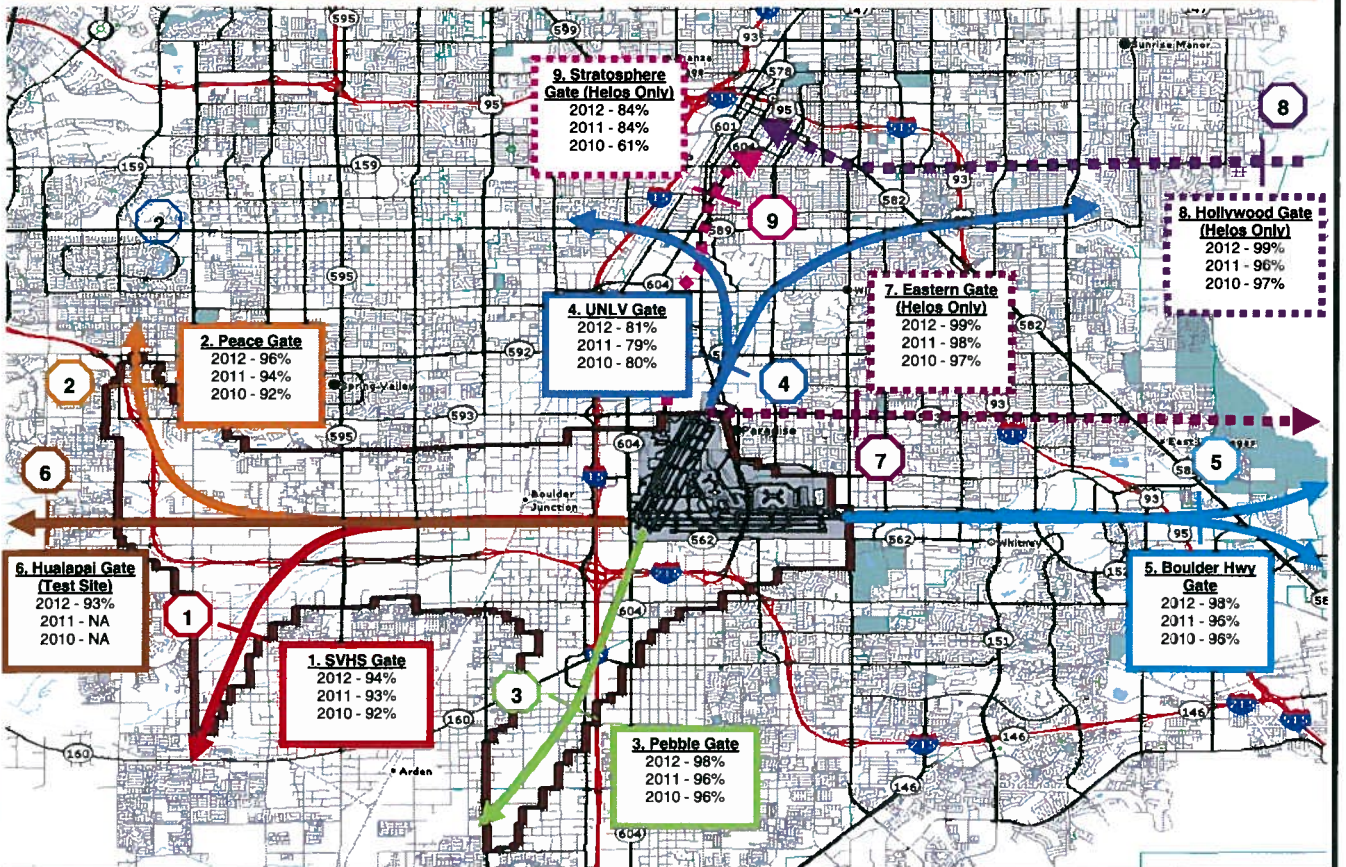


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - September 2012



* 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.