

MEMORANDUM

ROSEMARY A. VASSILIADIS
Director

DEPARTMENT OF AVIATION

TO: DISTRIBUTION Digitally signed by George C. Sims

FROM: GEORGE C. SIMS, PLANNER AND ANTHONY PERKINS, MANAGEMENT ANALYST

SUBJECT: OCTOBER, NOVEMBER, DECEMBER AND ANNUAL 2019
NOISE COMPLAINT AND LAND USE REVIEW REPORTS

DATE: FEBRUARY 4, 2020

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint Reports for October, November, and December 2019. Also included is the 2019 Annual Noise Complaint Report, covering the period of January through December 2019. Please note the following Clark County 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 through either the CCDOA's Noise Hotline (702-261-3694), the Noise Office (702-261-5600), 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 (702-652-2750), and noise complaints regarding aircraft operations from the Boulder City Airport are forwarded to the Boulder City Airport Coordinator (702-293-9405). Individuals who express concerns regarding aircraft operations originating from private facilities (i.e., Valley Hospital or the private helipad located near Las Vegas Blvd. and Larson Lane are asked to contact the individual property owner directly.

Added in 2019, Exhibits 10 through 17 summarize the CCDOA review of land use applications submitted to the Clark County Comprehensive Planning Department, as well as the Cities of North Las Vegas, Las Vegas, and Henderson. Applications may be issued a comment based on CCDOA concerns.

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**. Totals for helicopter operations along the Strip include tour operations originating from other airport facilities. **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.

Exhibit 9 summarizes how well large aircraft and helicopters adhered to the preferred, non-regulated departure corridors. Adherence to preferred departure corridors is voluntary, and neither Clark County nor the State of Nevada regulates aircraft in flight. The FAA, through the discretion of Congress, has sole authority over the safe and efficient utilization of the nation's navigable airspace. Therefore, local and state authorities cannot legally enforce the use of these corridors, or impose penalties to pilots who opt not to comply with preferred procedures. "Compliance gates" are located along historical/fly-quietly routes. If all aircraft flew with advanced navigational technologies and operated under Required Navigational Precision (RNP) procedures, then it could be expected that up to 95% of all aircraft would be within 0.3 nautical miles (NM) of a fly-over point. Therefore, 0.3 NM is the threshold for compliance for large air carrier aircraft. The compliance threshold for helicopters is 500 feet.

Exhibit 10 provides the total number of land use applications reviewed and the percentage of applications receiving a CCDOA comment. **Exhibit 11** breaks down the number of commented applications by airport concern. **Exhibit 12** provides the number of residential dwelling units per commented application. **Exhibit 13** gives the number of applications in which CCDOA recommends denial, as well as applications opposed in person at Commission and/or Council hearings. **Exhibit 14** displays the extent of the Airport Environs Overlay District (AEOD) for LAS, VGT, and HND. **Exhibit 15** depicts where noise-related comments were issued for applications around LAS. **Exhibit 16** depicts where noise-related comments were issued for applications around HND. Finally, **Exhibit 17** depicts where noise-related comments were issued for applications around VGT.

The Annual Noise Complaint Report includes additional information not provided in each monthly report. These additional illustrations (Exhibits 18 through 22) are helpful in assessing seasonal trends, comparisons of noise issues between various CCDOA facilities, noise complaint patterns between communities, long-term runway use trends, and long-term compliance determinations with the preferred departure corridors. **Exhibit 18** of the annual report illustrates the number of calls and callers by month, between 2017 and 2019. **Exhibit 19** illustrates the general time when the complaint was received by the CCDOA. Monthly calls by airport or helicopter operation are depicted on **Exhibit 20**. **Exhibit 21** depicts monthly calls by community. The final annual report, **Exhibit 22**, summarizes monthly calls by specific LAS operation.

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

October 2019: 105 total complaints - a 36% decrease from 2018 and a 24% increase from 2017. On average, each caller (or household) issued 4.8 calls. The most calls received from one household totaled 68.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Spring Valley** community issued 82 calls (78%). This community is typically impacted by aircraft departing to the west (from Runway 26R and Runway 26L). 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).

Minority (between 10% and 50%): The **Paradise and Winchester** communities issued 14 calls (13%). 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 65% (68 calls) of all the calls received in October 2019.

Calls by Operation - (Exhibit 2)

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

- 84% were due to departures to the north from Runways 01L and 01R (82% from two households).
- 9% were due to departures to the west from Runways 26L and 26R (78% from one household, which is also one of the same households that issued 82% of the calls for LAS Runways 01L and 01R).

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

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

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

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

- Overall:** 547 daily *departures* – a 5% increase from 2018 and 6% increase from 2017.
▪ 46% of departures were to the north, 43% west, 8% east, and 3% south.
541 daily *arrivals* – a 5% increase from 2018 and 3% increase from 2017.
▪ 70% of arrivals were from the east, 27% south, and 3% north.
- Daytime:** 443 daily *departures* – a 2% increase from 2018 and 4% increase from 2017.
▪ 49% of departures were to the north, 39% west, 9% east, and 3% south.
466 daily *arrivals* – a 3% decrease from 2018 and 2% increase from 2017.
▪ 68% of arrivals were from the east, 29% south, and 3% north.
- Nighttime:** 104 daily *departures* – a 19% increase from 2018 and 17% increase from 2017.
▪ 61% of departures were to the west, 33% north, 3% east and 3% south.
74 daily *arrivals* – a 16% increase from 2018 and an 8% increase from 2017.
▪ 78% of arrivals were from the east, 17% south, and 5% north.

Daytime vs. Nighttime: Approximately 81% of all *departures* and 86% of all *arrivals* occurred during the daytime hours.

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

- Overall:** 120 daily *departures* – a 10% increase from 2018 and an 8% increase from 2017.
▪ 50% of departures were to the north, 36% south, 11% east, and 3% west.
119 daily *arrivals* – an 8% increase from 2018 and a 17% increase from 2017.
▪ 44% of arrivals were from the south, 34% north, 21% east, and 1% west.
- Daytime:** 110 daily *departures* – an 11% increase from 2018 and 9% increase from 2017.
▪ 52% of departures were to the north, 33% south, 12% east, and 3% west.
112 daily *arrivals* – a 9% increase from 2018 and an 18% increase from 2017.
▪ 45% of arrivals were from the south, 33% north, 22% east, and 1% west.
- Nighttime:** 10 daily *departures* – a 6% decrease from 2018 and 1% increase from 2017.
▪ 61% of departures were to the south, 34% north, 3% west, and 2% east.
7 daily *arrivals* – a 7% decrease from 2018 and a 4% decrease from 2017.
▪ 60% of arrivals were from the north, 29% south, and 11% east.

Daytime vs. Nighttime: Approximately 92% of all *departures* and 94% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 79 daily *departures* - a 9% decrease from 2018 and a 20% decrease from 2017.

Charleston: 77 daily *arrivals* – a 5% decrease from 2018 and a 19% decrease from 2017.

Strip: 84 daily *touch and go's* - an 11% increase from 2018 and a 23% increase from 2017.

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 4% 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 3% of the daily traffic.
- Small:** *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 9% of the daily traffic.
- Military:** *Military* turbine-driven aircraft accounted for less than 1% of the daily traffic.
- Non-Jet:** *Piston-driven* aircraft and unassigned aircraft types accounted for 2% of the daily traffic.
- Helos:** *Touring helicopters* accounted for 20% of the daily traffic.
- Noisier Aircraft Types:** The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for less than one operation per day.

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

- Primary:** In 2019, 43% departed to the *west* (from LAS's primary departure runways). This figure was 40% in 2018 and 64% in 2017.
- Secondary:** In 2019, 3% departed to the *south* (from LAS's secondary departure runways). This figure was 14% in 2018 and 2% in 2017.
- Alternate 1:** In 2019, 46% departed to the *north* (from LAS's alternate departure runways). This figure was 32% in 2018 and 26% in 2017.
- Alternate 2:** In 2019, 8% departed to the *east* (from LAS's alternate departure runways). This figure was 14% in 2018 and 8% in 2017.

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

- SVHS:** In 2019, 99% of the large air carrier aircraft (excluding those destined to the Nevada National Security Site) that departed to the west from Runways 26L or 26R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 98% in 2018 and 97% in 2017.

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 26L and 26R. 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 2019, 98% of the large air carrier aircraft (excluding those destined to the Nevada National Security Site) that departed to the west from Runways 26L or 26R and made a right-hand turn were within 0.3 NM of the intersection of **Peace Way & Summers Shade Street**. This figure was 98% in 2018 and 95% in 2017.

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 26L and 26R. 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 2019, 99% of the large air carrier aircraft (excluding those destined to the Nevada National Security Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of **Pebble Road & Arville Street**. This figure was 97% in 2018 and 97% in 2017.

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 Springs Estates community) and aircraft turning late along this corridor (like the Southern Highlands community).

UNLV: In 2019, 93% 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 94% in 2018 and 94% in 2017.

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 2019, 99% of the large air carrier aircraft that departed to the north from Runways 08L or 08R were within 0.3 NM of the extended runway centerline, near **Boulder Highway**. This figure was 99% in 2018 and 99% in 2017.

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 08L and 08R. 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 2019, 91% of the large air carrier aircraft destined to the Nevada National Security Site that departed to the west from Runways 26L or 26R were within 0.3 NM of the extended runway centerline, near **Hualapai Way**. This figure was 88% in 2018 and 70% in 2017.

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 26L and 26R. This gate was established in May 2011 along a new noise abatement flight track which requests pilots of aircraft destined to the Nevada National Security Site to proceed runway heading to 7 nautical miles from the Las Vegas VORTAC before turning. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Spanish Trail community and the Summerlin South community).

Eastern: In 2019, 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 2018 and 99% in 2017.

The Eastern Ave. “compliance gate” is located at Tropicana Ave. and Eastern Ave, approximately 2 miles due west of 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 2019, 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 2018 and 97% in 2017.

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 2019, 99% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, **northeast of the Stratosphere Tower**. This figure was 99% in 2018 and 99% in 2017.

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.

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 142 applications were reviewed, with 14 applications (10%) issued at least one comment.

Henderson: 52 applications were reviewed, with 4 applications (8%) issued at least one comment.

Las Vegas: 130 applications were reviewed, with 1 applications (1%) issued at least one comment.

North Las Vegas: 11 applications were reviewed, with 1 applications (9%) issued at least one comment.

Land Use Application Comments by Airport Concern – (Exhibit 11)

Clark County: 15 comments were issued, with 11 comments issued for “noise” concerns.

Henderson: 4 comments were issued, with 3 comments issued for “noise” concerns.

Las Vegas: 1 comments were issued, with 0 comment issued for “noise” concerns.

North Las Vegas: 1 comments were issued, with 1 comment issued for “noise” concerns.

Dwelling Units per “Noise,” Commented Application – (Exhibit 12)

Clark County: 480 dwelling units were proposed in the commented applications, within the AEOD, 792 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 602 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 0 dwelling units were proposed in the commented applications, just outside the AEOD.

North Las Vegas: 22 dwelling units were proposed in the commented application, just outside the AEOD.

Land Use Applications Denied and/or Opposed – (Exhibit 13)

0 applications were denied and/or opposed in person.

The information denoted in this monthly summary represents **typical** residential complaints (with the exception of the number of complaints tied to two households), flight activity, (with the exception of increased departures to the north), fleet mix, and gate compliance. The northbound departure increase was a result of a direction change of winds from the north, and/or an increase in fixed-wing operations resulting in the FAA necessitating greater use of the north/south runways to maintain operational efficiency.

November 2019: 90 total complaints - a 5% increase from 2018 and a 275% increase from 2017. On average, each caller (or household) issued 6.4 calls. The most calls received from one household totaled 28.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Spring Valley** community issued 58 calls (65%). (See October 2019 synopsis of typical aircraft overflight impacts on this community.)

Minority (between 10% and 50%):

The **Paradise and Winchester** communities issued 30 calls (33%). (See October 2019 synopsis of typical aircraft overflight impacts on this community.)

Repeat Caller Impact: One household issued 31% (28 calls) of all the calls received in November 2019.

Calls by Operation - (Exhibit 2)

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

- 59% were due to departures to the north from Runways 01L and 01R. (85% from two households).
- 40% were due to departures to the west from Runways 26L and 26R. (91% from three households, which is one of the same households that issued 85% of the calls for LAS Runways 01L and 01R).

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

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

Overall: 511 daily *departures* – a 3% increase from 2018 and a 6% increase from 2017.

- 63% of departures were to the west, 31% north, 3% east, and 3% south.

500 daily *arrivals* – a 3% increase from 2018 and 3% increase from 2017.

- 81% of arrivals were from the east, 15% south, and 4% north.

Daytime: 409 daily *departures* – a 1% increase from 2018 and a 4% increase from 2017.

- 58% of departures were to the west, 35% north, 4% south, and 3% east.

431 daily *arrivals* – a 3% increase from 2018 and a 4% increase from 2017.

- 80% of arrivals were from the east, 16% south, and 4% north.

Nighttime: 102 daily *departures* – a 14% increase from 2018 and a 13% increase from 2017.

- 84% of departures were to the west, 13% north, and 3% south.

69 daily *arrivals* – a 5% increase from 2018 and a 4% decrease from 2017.

- 87% of arrivals were from the east, 7% south, and 6% north.

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

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

- Overall:** 110 daily *departures* – a 4% increase from 2018 and a 12% increase from 2017.
▪ 57% of departures were to the south, 37% north, 4% west, and 3% east.
107 daily *arrivals* – a 2% increase from 2018 and 17% increase from 2017.
▪ 52% of arrivals were from the north, 27% south, 21% east, and 1% west.
- Daytime:** 101 daily *departures* – a 5% increase from 2018 and a 12% increase from 2017.
▪ 54% of departures were to the south, 40% north, 4% west, and 3% east.
100 daily *arrivals* – a 1% increase from 2018 and a 17% increase from 2017.
▪ 50% of arrivals were from the north, 28% south, 22% east, and 1% west.
- Nighttime:** 10 daily *departures* – a 6% decrease from 2018 and an 8% increase from 2017.
▪ 86% of departures were to the south, 10% north, and 4% west.
8 daily *arrivals* – a 9% increase from 2018 and a 19% increase from 2017.
▪ 75% of arrivals were from the north, 13% south, 11% east, and 1% west.

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

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

Tropicana: 56 daily *departures* - a 19% decrease from 2018 and 28% decrease from 2017.

Charleston: 55 daily *arrivals* – a 15% decrease from 2018 and 29% decrease from 2017.

Strip: 83 daily *touch and go's* – a 10% increase from 2018 and a 23% increase from 2017.

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 5% 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 3% of the daily traffic.
- Small:** **Small** turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 9% of the daily traffic.
- Military:** **Military** turbine-driven aircraft accounted for less than 1% of the daily traffic.
- Non-Jet:** **Piston-driven** aircraft and unassigned aircraft types accounted for 2% of the daily traffic.
- Helos:** **Touring helicopters** accounted for 19% 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 2019, 63% departed to the **west** (from LAS's primary departure runways). This figure was 45% in 2018 and 86% in 2017.

Secondary: In 2019, 3% departed to the **south** (from LAS's secondary departure runways). This figure was 3% in 2018 and 4% in 2017.

Alternate 1: In 2019, 31% departed to the **north** (from LAS's alternate departure runways). This figure was 48% in 2018 and 10% in 2017.

Alternate 2: In 2019, 3% departed to the **east** (from LAS's alternate departure runways). This figure was 3% in 2018 and 1% in 2017.

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

SVHS: In 2019, 98% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 26L or 26R and made a left-hand turn were within 0.3 NM of **Sierra Vista High School** (SVHS). This figure was 98% in 2018 and 97% in 2017. (See October 2019 synopsis for specific location of the SVHS gate.)

Peace: In 2019, 98% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 26L or 26R and made a right-hand turn were within 0.3 NM of the intersection of **Peace Way & Summers Shade Street**. This figure was 98% in 2018 and 95% in 2017. (See October 2019 synopsis for specific location of the Peace gate.)

Pebble: In 2019, 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 99% in 2018 and 98% in 2017. (See October 2019 synopsis for specific location of the Pebble gate.)

UNLV: In 2019, 94% 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 94% in 2018 and 90% in 2017. (See October 2019 synopsis for specific location of the UNLV gate.)

Boulder: In 2019, 99% of the large air carrier aircraft that departed to the north from Runways 08L or 08R were within 0.3 NM of the extended runway centerline, near **Boulder Highway**. This figure was 99% in 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2019, 90% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runways 26L or 26R were within 0.3 NM of the extended runway centerline, near **Hualapai Way**. This figure was 89% in 2018 and 77% in 2017. (See October 2019 synopsis for specific location of the Hualapai gate.)

Eastern: In 2019, 99% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of *Tropicana Avenue & Eastern Avenue*. This figure was 99% in 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Eastern gate.)

Hollywood: In 2019, 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 2018 and 94% in 2017. (See October 2019 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2019, 99% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 99% in 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 121 applications were reviewed, with 8 applications (7%) issued at least one comment.

Henderson: 46 applications were reviewed, with 7 applications (15%) issued at least one comment.

Las Vegas: 0 applications were reviewed.

North Las Vegas: 15 applications were reviewed, with 0 applications issued at least one comment.

Land Use Application Comments by Airport Concern – (Exhibit 11)

Clark County: 10 comments were issued, with 6 comments issued for “noise” concerns.

Henderson: 8 comments were issued, with 4 comments issued for “noise” concerns.

Las Vegas: 0 comments were issued.

North Las Vegas: 0 comments were issued.

Dwelling Units per “Noise,” Commented Application – (Exhibit 12)

Clark County: 4 dwelling units were proposed in the commented applications, within the AEOD, 514 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 712 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 0 applications reviewed.

North Las Vegas: 0 applications commented.

Land Use Applications Denied and/or Opposed – (Exhibit 13)

0 applications were denied and/or opposed in person.

The information denoted in this monthly summary represents typical residential complaints (with the exception of the number of complaints tied to one household), flight activity, (with the exception of increased departures to the north), fleet mix, and gate compliance. The northbound departure increase was a result of a direction change of winds from the north, and/or an increase in fixed-wing operations resulting in the FAA necessitating greater use of the north/south runways to maintain operational efficiency.

December 2019: 129 total complaints – a 93% increase from 2018 and a 378% increase from 2017. On average, each caller (or household) issued 3.7 calls. The most calls received from one household totaled 49.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Spring Valley** community issued 101 calls (78%). (See October 2019 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 38% (49 calls) of all the calls received in December 2019.

Calls by Operation - (Exhibit 2)

- LAS:** 98% of the total calls received were due to **LAS** fixed-wing operations.
- 87% were due to departures to the north from Runways 01L and 01R (74% from two households).
- VGT:** 1% of the total calls received were due to **VGT** fixed-wing operations.
- HND:** 1% of the total calls received were due to **HND** fixed-wing operations.
- Helis:** 1% of the total calls received were due to **helicopter** operations.

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

- Overall:** 493 daily *departures* – a 4% increase from 2018 and 4% increase from 2017.
- 50% of departures were to the west, 44% north, 4% south, and 2% east.
- 483 daily *arrivals* – a 3% decrease from 2018 and 2% increase from 2017.
- 78% of arrivals were from the east, 19% south, and 3% north.
- Daytime:** 392 daily *departures* – no change from 2018 and a 1% increase from 2017.
- 48% of departures were to the west, 45% north, 5% south, and 2% east.
- 408 daily *arrivals* – no change from 2018 and a 1% increase from 2017.
- 78% of arrivals were from the east, 20% south, and 2% north.
- Nighttime:** 101 daily *departures* – an 18% increase from 2018 and an 18% increase from 2017.
- 60% of departures were to the west, 37% north, and 3% south.
- 75 daily *arrivals* – a 25% increase from 2018 and a 9% increase from 2017.
- 82% of arrivals were from the east, 14% south, and 4% north.

Daytime vs. Nighttime: Approximately 80% of all *departures* and 85% of all *arrivals* occurred during the daytime hours.

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

Overall: 106 daily *departures* – an 8% increase from 2018 and a 19% increase from 2017.
▪ 48% of departures were to the north, 45% south, 5% west, and 2% east.
106 daily *arrivals* – a 5% increase from 2018 and 25% increase from 2017.
▪ 41% of arrivals were from the north, 34% south, and 25% east.

Daytime: 97 daily *departures* – a 7% increase from 2018 and a 19% increase from 2017.
▪ 49% of departures were to the north, 43% south, 6% west, and 2% east.
99 daily *arrivals* – a 5% increase from 2018 and 25% increase from 2017.
▪ 40% of arrivals were from the north, 34% south, and 26% east.

Nighttime: 9 daily *departures* – a 16% increase from 2018 and a 14% increase from 2017.
▪ 59% of departures were to the south, 38% north, and 3% west.
7 daily *arrivals* – a 10% increase from 2018 and a 19% increase from 2017.
▪ 57% of arrivals were from the north, 30% south, 12% east, and 1% west.

Daytime vs. Nighttime: Approximately 92% of all *departures* and 93% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 47 daily *departures* - a 15% decrease from 2018 and a 25% decrease from 2017.

Charleston: 45 daily *arrivals* – a 13% decrease from 2018 and a 25% decrease from 2017.

Strip: 73 daily *touch and go's* - a 2% decrease from 2018 and a 15% increase from 2017.

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 5% 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 3% of the daily traffic.

Small: **Small** turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 9% of the daily traffic.

Military: **Military** turbine-driven aircraft accounted for 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 17% 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 2019, 50% departed to the *west* (from LAS's primary departure runways). This figure was 73% in 2018 and 72% in 2017.

Secondary: In 2019, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 3% in 2018 and 2% in 2017.

Alternate 1: In 2019, 44% departed to the *north* (from LAS's alternate departure runways). This figure was 24% in 2018 and 24% in 2017.

Alternate 2: In 2019, 2% departed to the *east* (from LAS's alternate departure runways). This figure was 1% in 2018 and 1% in 2017.

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

SVHS: In 2019, 98% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 26L or 26R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 99% in 2018 and 97% in 2017. (See October 2019 synopsis for specific location of the SVHS gate.)

Peace: In 2019, 97% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 26L or 26R and made a right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 98% in 2018 and 96% in 2017. (See October 2019 synopsis for specific location of the Peace gate.)

Pebble: In 2019, 99% 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 2018 and 95% in 2017. (See October 2019 synopsis for specific location of the Pebble gate.)

UNLV: In 2019, 94% 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 91% in 2018 and 86% in 2017. (See October 2019 synopsis for specific location of the UNLV gate.)

Boulder: In 2019, 99% of the large air carrier aircraft that departed to the north from Runways 08L or 08R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 100% in 2018 and 98% in 2017. (See October 2019 synopsis for specific location of the Boulder Hwy. gate.)

Hualapai: In 2019, 93% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runways 26L or 26R were within 0.3 NM of the extended runway centerline, near *Hualapai Way*. This figure was 94% in 2018 and 82% in 2017. (See October 2019 synopsis for specific location of the Hualapai gate.)

Eastern: In 2019, 99% of the touring helicopters destined east of the Las Vegas Valley were within 500 feet of the intersection of *Tropicana Avenue & Eastern Avenue*. This figure was 99% in 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Eastern gate.)

Hollywood: In 2019, 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 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2019, 99% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 99% in 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 160 applications were reviewed, with 15 applications (9%) issued at least one comment.

Henderson: 16 applications were reviewed, with 2 applications (13%) issued at least one comment.

Las Vegas: 80 applications were reviewed, with 0 applications issued at least one comment.

North Las Vegas: 11 applications were reviewed, with 0 applications issued at least one comment.

Land Use Application Comments by Airport Concern – (Exhibit 11)

Clark County: 18 comments were issued, with 12 comments issued for “noise” concerns.

Henderson: 2 comments were issued, with 0 comments issued for “noise” concerns.

Las Vegas: 0 comments were issued.

North Las Vegas: 0 comments were issued.

Dwelling Units per “Noise,” Commented Application – (Exhibit 12)

Clark County: 1,328 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 0 dwelling units were proposed in the commented applications.

Las Vegas: 0 applications commented.

North Las Vegas: 0 applications commented.

Land Use Applications Denied and/or Opposed – (Exhibit 13)

0 applications were denied and/or opposed in person.

The information denoted in this monthly summary represents typical residential complaints (with the exception of the number of complaints tied to one household), flight activity, (with the exception of increased departures to the north), fleet mix, and gate compliance. The northbound departure increase was a result of a direction change of winds from the north, and/or an increase in fixed-wing operations resulting in the FAA necessitating greater use of the north/south runways to maintain operational efficiency.

Annual Noise Complaint Summaries

2019: 980 total complaints – a 41% decrease from 2018 and a 65% increase from 2017. On average, each caller (or household) issued 6.2 calls. The most calls received from one household totaled 381.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Spring Valley** community issued 726 calls (74%). (See October 2019 synopsis of typical aircraft overflight impacts on this community.)

Minority (between 10% and 50%): The **Paradise and Winchester** communities issued 101 calls (10%). (See October 2019 synopsis of typical aircraft overflight impacts on this community.)

Repeat Caller Impact: One household issued 39% (381 calls) of all the calls received in 2019.

Calls by Operation - (Exhibit 2)

LAS: 94% of the total calls received were due to **LAS** fixed-wing operations.

- 47% were due to departures to the north from Runways 01L and 01R (77% from three households).
- 40% were due to departures to the west from Runways 26L and 26R (77% from one household, which is also one of the three households that issued 77% of the calls for Runways 01L and 01R).

VGT: 1% of the total calls received were due to **VGT** fixed-wing operations (68% from one household).

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

Helis: 3% of the total calls received were due to **helicopter** operations.

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

Overall: 516 daily *departures* – a 3% increase from 2018 and a 4% increase from 2017.

- 62% of departures were to the west, 24% north, 9% east, and 5% south.

509 daily *arrivals* – a 1% increase from 2018 and 2% increase from 2017.

- 75% of arrivals were from the east, 12% north, 9% north, and 3% west.

Daytime: 413 daily *departures* – a 1% increase from 2018 and a 1% increase from 2017.

- 59% of departures were to the west, 25% north, 11% east, and 5% south.

435 daily *arrivals* – a 2% increase from 2018 and a 2% increase from 2017.

- 74% of arrivals were from the east, 13% south, 10% north, and 4% west.

Nighttime: 103 daily *departures* – a 9% increase from 2018 and a 16% increase from 2017.
▪ 76% of departures were to the west, 20% north, 3% south, and 1% east.
74 daily *arrivals* – a 1% decrease from 2018 and a 6% increase from 2017.
▪ 83% of arrivals were from the east, 9% south, and 8% north.

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

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

Overall: 108 daily *departures* – a 1% increase from 2018 and a 7% increase from 2017.
▪ 58% of departures were to the south, 26% north, 10% east, and 6% west.
106 daily *arrivals* – a 3% increase from 2018 and 11% increase from 2017.
▪ 59% of arrivals were from the north, 21% south, 15% east, and 4% west.

Daytime: 98 daily *departures* – a 2% increase from 2018 and an 8% increase from 2017.
▪ 57% of departures were to the south, 27% north, 11% east, and 5% west.
99 daily *arrivals* – a 3% increase from 2018 and 12% increase from 2017.
▪ 58% of arrivals were from the north, 22% south, 16% east, and 5% west.

Nighttime: 10 daily *departures* – a 7% decrease from 2018 and 2% decrease from 2017.
▪ 70% of departures were to the south, 19% north, 10% west, and 1% east.
7 daily *arrivals* – no change from 2018 and a 6% increase from 2017.
▪ 70% of arrivals were from the north, 18% south, 10% east, and 1% west.

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

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

Tropicana: 69 daily *departures* – an 11% decrease from 2018 and 27% decrease from 2017.

Charleston: 67 daily *arrivals* - a 7% decrease from 2018 and 28% decrease from 2017.

Strip: 82 daily *touch and go's* - a 10% increase from 2018 and 10% increase from 2017.

Daytime vs. Nighttime: Approximately 91% 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 4% 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 3% 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 less than 1% of the daily traffic.

Non-Jet: *Piston-driven* aircraft and unassigned aircraft types accounted for 2% of the daily traffic.

Helos: *Touring helicopters* accounted for 20% of the daily traffic.

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

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

Primary: In 2019, 62% departed to the *west* (from LAS's primary departure runways). This figure was 66% in 2018 and 66% in 2017.

Secondary: In 2019, 5% departed to the *south* (from LAS's secondary departure runways). This figure was 5% in 2018 and 3% in 2017.

Alternate 1: In 2019, 24% departed to the *north* (from LAS's alternate departure runways). This figure was 17% in 2018 and 18% in 2017.

Alternate 2: In 2019, 9% departed to the *east* (from LAS's alternate departure runways). This figure was 13% in 2018 and 12% in 2017.

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

SVHS: In 2019, 98% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 26L or 26R and made a left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 98% in 2018 and 97% in 2017. (See October 2019 synopsis for specific location of the SVHS gate.)

Peace: In 2019, 98% of the large air carrier aircraft (excluding those destined to the Nevada Test Site) that departed to the west from Runways 26L or 26R and made a right-hand turn were within 0.3 NM of the intersection of *Peace Way & Summers Shade Street*. This figure was 97% in 2018 and 95% in 2017. (See October 2019 synopsis for specific location of the Peace gate.)

Pebble: In 2019, 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 97% in 2018 and 98% in 2017. (See October 2019 synopsis for specific location of the Pebble gate.)

UNLV: In 2019, 93% 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 93% in 2018 and 89% in 2017. (See October 2019 synopsis for specific location of the UNLV gate.)

Boulder: In 2019, 99% of the large air carrier aircraft that departed to the north from Runways 08L or 08R were within 0.3 NM of the extended runway centerline, near *Boulder Highway*. This figure was 99% in 2018 and 99% in 2017. (See October 2019 synopsis for specific location of the Boulder Hwy. gate.)

- Hualapai:** In 2019, 97% of the large air carrier aircraft destined to the Nevada Test Site that departed to the west from Runways 26L or 26R were within 0.3 NM of the extended runway centerline, near **Hualapai Way**. This figure was 87% in 2018 and 81% in 2017. (See October 2019 synopsis for specific location of the Hualapai gate.)
- Eastern:** In 2019, 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 2018 and 98% in 2017. (See October 2019 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2019, 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 2018 and 97% in 2017. (See October 2019 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2019, 99% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, **northeast of the Stratosphere Tower**. This figure was 99% in 2018 and 97% in 2017. (See October 2019 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

- Clark County:** 1,753 applications were reviewed, with 157 applications (9%) issued at least one comment.
- Henderson:** 542 applications were reviewed, with 43 applications (8%) issued at least one comment.
- Las Vegas:** 1,065 applications were reviewed, with 10 applications (1%) issued at least one comment.
- North Las Vegas:** 235 applications were reviewed, with 9 applications (4%) issued at least one comment.

Land Use Application Comments by Airport Concern – (Exhibit 11)

- Clark County:** 193 comments were issued, with 119 comments issued for “noise” concerns.
- Henderson:** 50 comments were issued, with 27 comments issued for “noise” concerns.
- Las Vegas:** 10 comments were issued, with 3 comments issued for “noise” concerns.
- North Las Vegas:** 9 comments were issued, with 8 comments issued for “noise” concerns.

Dwelling Units per “Noise,” Commented Application – (Exhibit 12)

- Clark County:** 1,410 dwelling units were proposed in the commented applications, within the AEOD. 9,299 dwelling units were proposed in the commented applications, just outside the AEOD.
- Henderson:** 5,464 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 323 dwelling units were proposed in the commented applications, just outside the AEOD.

North Las Vegas: 161 dwelling units were proposed in the commented applications, just outside the AEOD.

Land Use Applications Denied and/or Opposed – (Exhibit 13)

Clark County: 5 applications were denied and 4 applications were opposed in person, at a hearing. 1 of the opposed applications was withdrawn at the hearing. Consequently, CCDOA was present, but did not speak.

Henderson: 1 application was denied and 0 applications were opposed in person.

Las Vegas: 0 applications were denied and/or opposed in person.

North Las Vegas: 0 applications were denied and/or opposed in person.

Calls by Month - (Exhibit 18)

Seasonal Trends: The majority of the calls received for 2019 occurred March, May, October, and December (46% of the total number of complaint calls received). The vast majority of calls received were associated with departures to the north, with 39% of the calls originating from one household. While historical weather conditions for the Las Vegas Valley reflect the majority of departures from LAS will utilize Runway 26L and Runway 26R, whenever wind and weather conditions dictate, the FAA will utilize a variety of runway configurations to better manage traffic levels in a safe and efficient manner. Additionally, when weather conditions are temperate and residents opt to leave their windows and doors open during the spring and fall months, the number of noise complaints tends to increase, as indicated on the exhibit.

Calls by Time of Day - (Exhibit 19)

Daytime versus Nighttime: Approximately 66% of the total calls received by the CCDOA were issued between the hours of 7 AM and 10 PM (31% from one household) while the remaining 34% were received between the hours of 10 PM and 7 AM (55% from one household, which is the same household that issued 31% of the calls between the hours of 7 AM and 10 PM).

Calls by Airport/Operation - (Exhibit 20)

Airport Trends: A majority (94%) of the total calls received in 2019 were attributed to LAS operations (41% from one household, which is the same household that issued 31% of the calls between 7 AM and 10 PM, and 55% of the calls between 10 PM and 7 AM).

Calls by Community - (Exhibit 21)

Community Trends: A majority of the total calls (74%) originated from the *Spring Valley* community. Calls received from *Spring Valley* were attributed to westbound departures from Runway 26R, and northbound departures turning west then south from Runway 01R. However, 52% of the total 726 calls received from this community were from a single household.

Calls by LAS Operations - (Exhibit 22)

LAS Trends: The majority (50%) of the total calls received were associated with typical increased departures to the north from Runways 01R and 01L, and to the west from Runways 26R and 26L (45% from one household, which is the same household that issued 31% of the calls between 7 AM and 10 PM, and 55% of the calls between 10 PM and 7 AM, and 54% of the total calls attributed to LAS operations).

Other Notable Issues

On Thursday, December 19, 2019, McCarran International Airport reached a significant milestone in its 71 year history as they welcomed their 50 millionth passenger, making 2019 our busiest year. In addition to this new annual record, McCarran posted multiple all-time-high months over the course of the year, including October 2018 logging the highest single-month passenger volume in airport history. With a 3.8% rise in passenger volume, this is the ninth consecutive year the commercial airport serving Southern Nevada has experienced a year-over-year increase. The continued growth in passenger and fixed-wing operations has resulted in the FAA using the north/south runways (landings from the south and departures to the north) more frequently to maintain operational efficiency.

Las Vegas Metroplex Project: The FAA has prepared an Environmental Assessment (EA) in accordance with FAA Order 1050.1F to document the potential environmental effects associated with proposed optimization of aircraft routes and the supporting airspace management structure serving aircraft operating under instrument flight rules (IFR) while departing from or arriving to the Las Vegas area. The Las Vegas Metroplex Project is expected to improve the efficiency of airspace in the Las Vegas Metroplex area by optimizing aircraft arrival and departure procedures to and from McCarran International Airport (LAS), Henderson Executive Airport (HND), and North Las Vegas Airport (VGT). The Project may involve changes in aircraft flight paths and altitudes in certain areas, but would not result in any ground disturbance or increase the number of aircraft operations at any of airports. For additional details, go to the following website:

https://www.faa.gov/air_traffic/community_involvement/las/

The FAA expects to implement the Las Vegas Metroplex in late May, 2020.

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

February 4, 2020

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Distribution:

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Elizabeth Fretwell (CLV)	Christine Gerencher (American Airlines)
Mayor Carolyn Goodman (CLV)	Bert Ganoung (SFO)
Mayor Pro Tem Lois Tarkanian (CLV)	San Diego Airport Noise Management
Councilman S. Anthony (CLV)	Jeannie Denham (Citizen)
Councilman Bob Coffin (CLV)	Judge Bob Johnston (Citizen)
Councilman Steven S. Seroka (CLV)	Roy Fuhrmann (Metro Airports Commission)
Councilwoman Michele Fiore (CLV)	Tom Schaus (Sundance Helicopters)
Councilman Cedric Crear (CLV)	Brooke Satern (Port of Portland)
Brok Armantrout (CBC)	Gary Brodt (Citizen)
David Parks (Nevada State Assembly)	James P. Callahan (Nellis AFB)
J. Gordon Arkin (Foley & Lardner)	Stan Shepherd (SEATAC)
John Williams (Ricondo)	Eric Sheng (Long Beach Airport)
Douglas Pomeroy (FAA ADO)	Jason Schwartz (Portland Airport)
La Nea M. Conner (Boeing)	Todd Lobato (Nellis AFB)
Mike Jeck (Metro Wash. Air Auth.)	Steven Peacock (Dallas City Hall)
Karen Everitt (Dallas City Hall)	William Olivieri (Citizen)
Samuel Carter (Harris)	

Exhibit 1: Noise Complaint Calls by Community* - October 2019

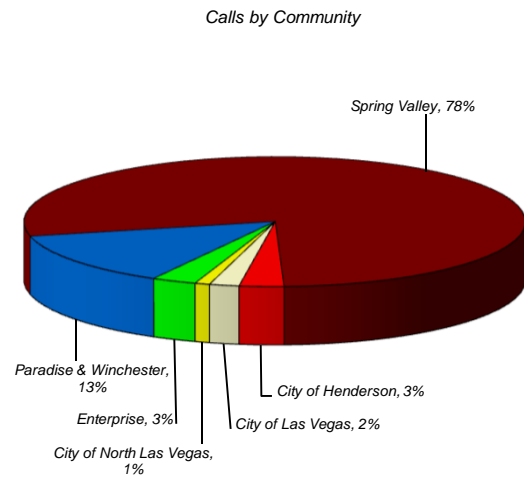
Community	No. of Calls in 2019	No. of Callers in 2019	No. of Calls in 2018	No. of Calls in 2017
City of Boulder City	3	3	4	1
City of Henderson	2	2	2	1
City of Las Vegas	1	1	2	2
City of North Las Vegas	3	2	15	7
Enterprise	14	9	67	43
Lone Mountain	82	5	71	24
Paradise & Winchester			1	1
Spring Valley			4	6
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	105	22	164	85

Difference between 2019 and 2018 Total Calls: -36%

Difference between 2019 and 2017 Total Calls: 24%

Average Number of Calls per Caller: 4.8

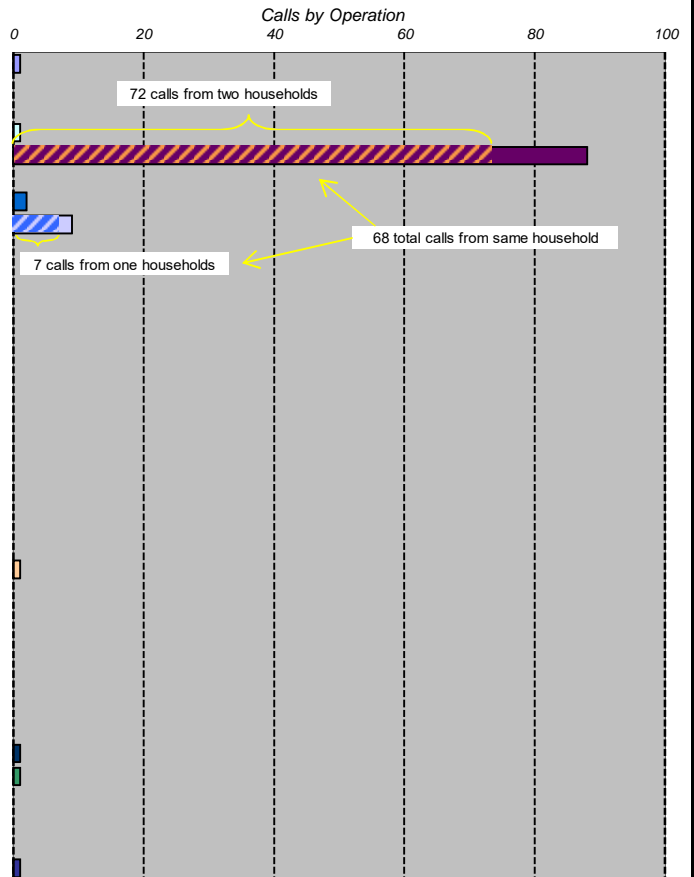
Most calls received from one household: 68



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

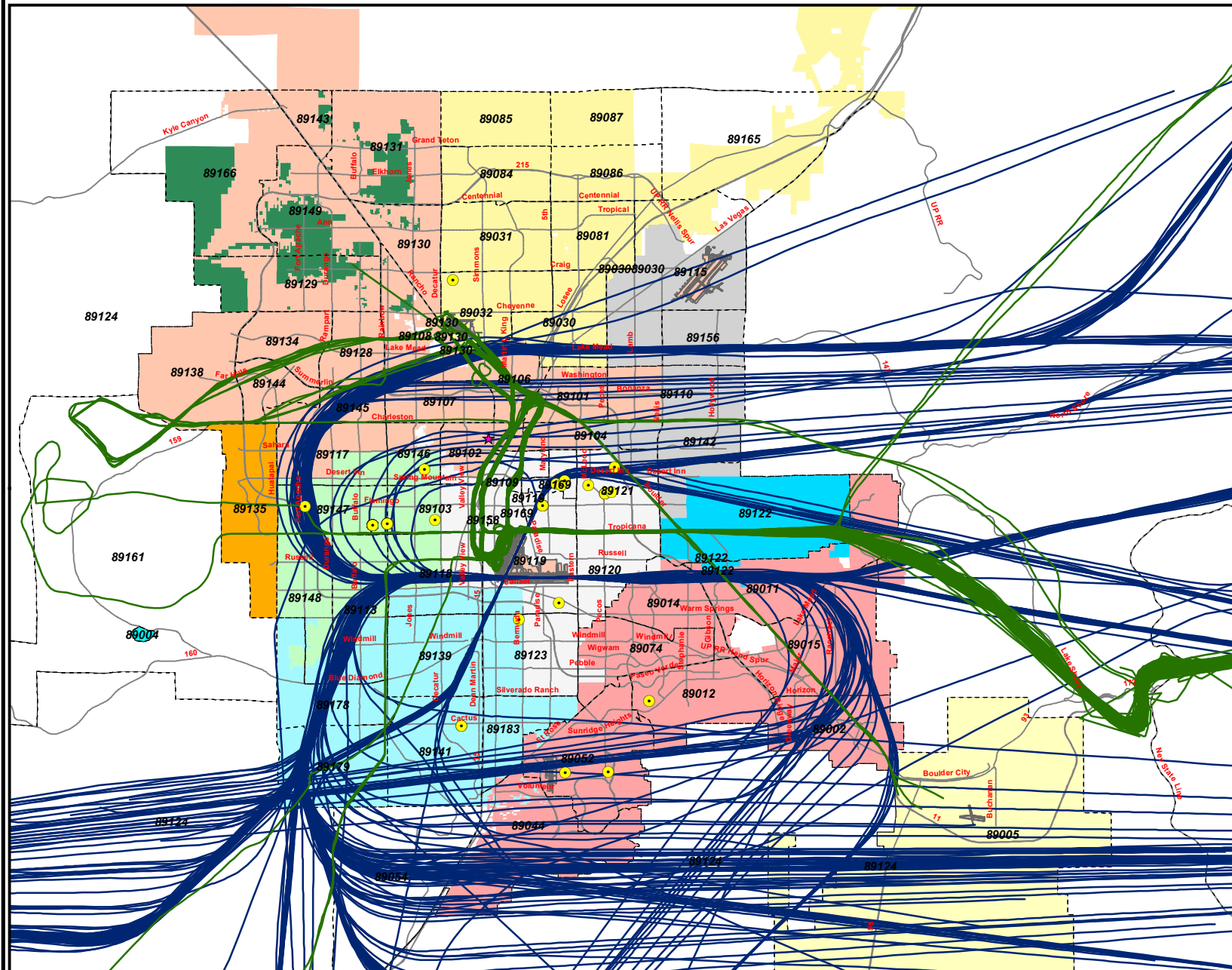
Exhibit 2: Noise Complaint Calls by Type of Operation - October 2019

Operation	No. of Calls in 2019	Percent of Overall Total	No. of Calls in 2018	No. of Calls in 2017
LAS 01R/L Arrivals	1	1.0%	5	
LAS 08R/L Arrivals			1	
LAS 19R/L Arrivals				4
LAS 26R/L Arrivals	1	1.0%	9	
LAS 01R/L Departures	88	83.8%	93	61
LAS 08R/L Departures			3	1
LAS 19R/L Departures	2	1.9%	1	2
LAS 26R/L Departures	9	8.6%	50	13
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	101	96.2%	162	81
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	1.0%		2
VGT Other				
VGT Total	1	1.0%	0	2
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups	1	1.0%		
HND GA	1	1.0%	1	
HND Other				
HND Total	2	1.9%	1	0
Helicopters**	1	1.0%	1	2
Overall Total	105	100%	164	85



** 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 - Oct 2019



Legend

Oct 2019
Total Complaints: 105

- Aircraft Complaints Received 104 Mapped 104
- ★ Helicopter Complaints Received 1 Mapped 1
- Major Streets
- Airports
- - - Zip Code Boundaries
- Typical Large Air Carrier Departure Tracks
- Typical Touring Helicopter Tracks
- 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
Geographic Information Systems



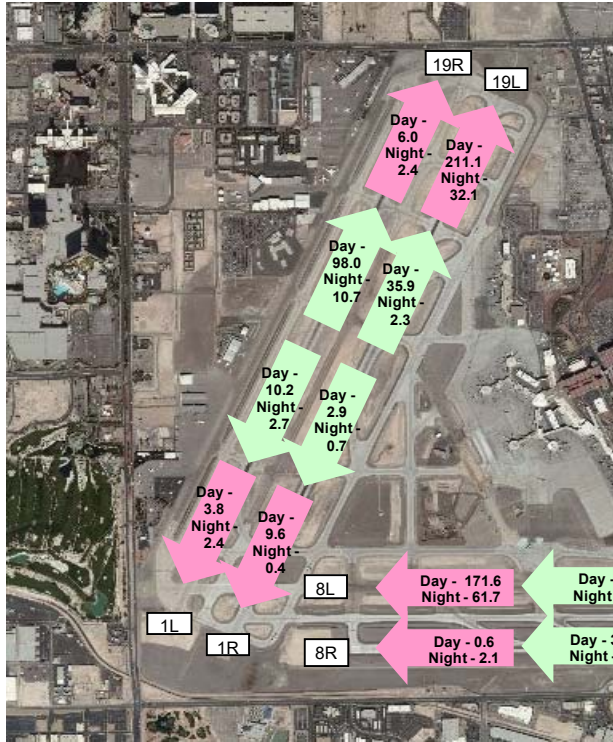
Jan 16, 2020

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display purposes only.
No liability is assumed
with the accuracy of
the data displayed hereon.

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Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - October 2019



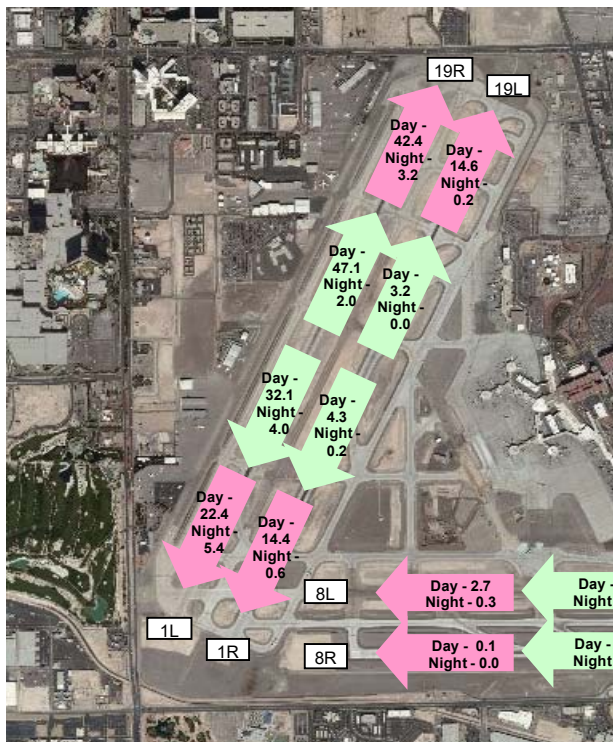
Year	2019		2018		2017	
Daytime Departures	443	81%	434	83%	426	83%
Nighttime Departures	104	19%	88	17%	89	17%
Total Departures	547	100%	522	100%	514	100%

Daytime Arrivals	466	86%	453	88%	456	87%
Nighttime Arrivals	74	14%	64	12%	69	13%
Total Arrivals	541	100%	517	100%	525	100%

Growth	Overall	Daytime	Nighttime
Depts. 2019 vs 2018	5%	2%	19%
Depts. 2019 vs 2017	6%	4%	17%
Arrivals 2019 vs 2018	5%	3%	16%
Arrivals 2019 vs 2017	3%	2%	8%

* 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** - October 2019



Year	2019		2018		2017	
Daytime Departures	110	92%	99	90%	101	91%
Nighttime Departures	10	8%	11	10%	10	9%
Total Departures	120	100%	109	100%	111	100%

Daytime Arrivals	112	94%	102	93%	95	93%
Nighttime Arrivals	7	6%	8	7%	7	7%
Total Arrivals	119	100%	110	100%	102	100%

Growth	Overall	Daytime	Nighttime
Depts. 2019 vs 2018	10%	11%	-6%
Depts. 2019 vs 2017	8%	9%	1%
Arrivals 2019 vs 2018	8%	9%	-7%
Arrivals 2019 vs 2017	17%	18%	-4%

** 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* - October 2019

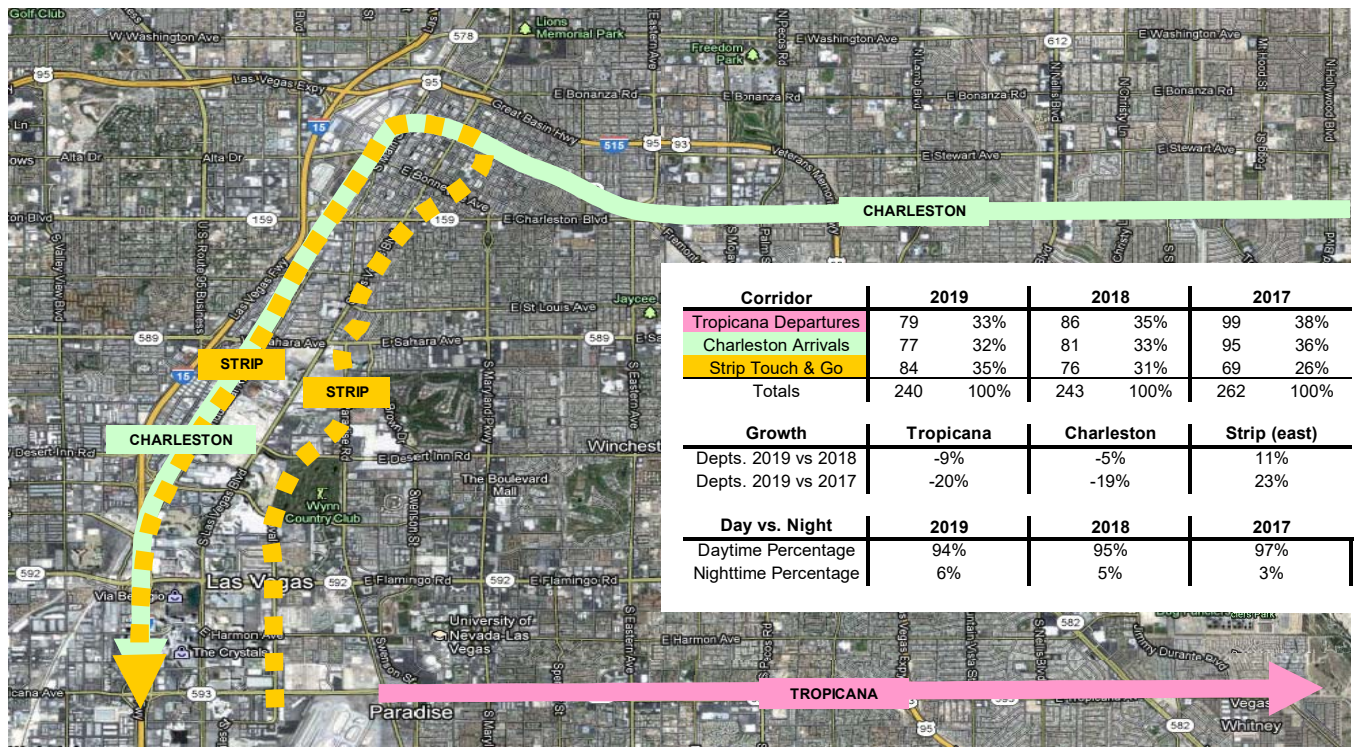
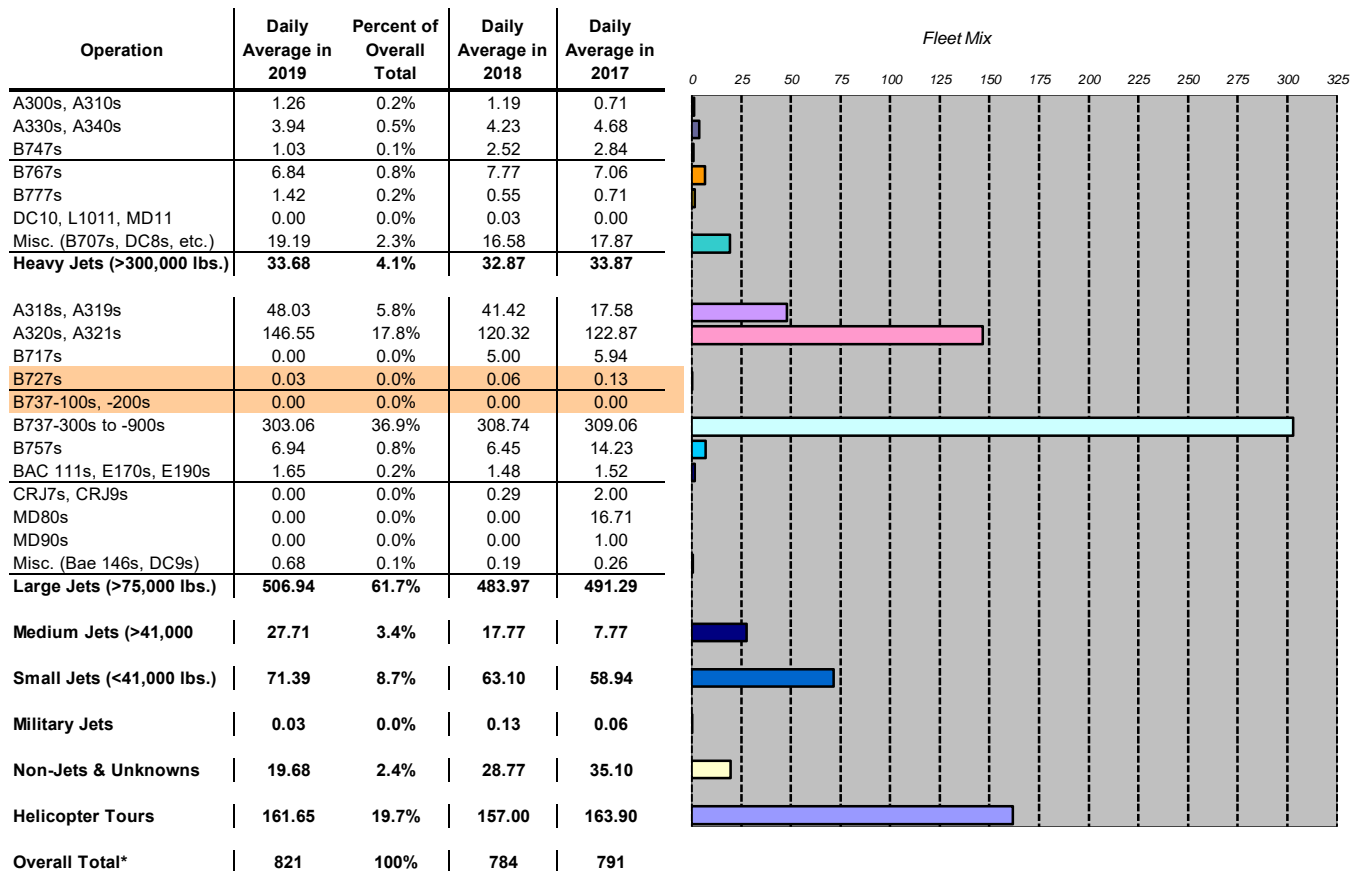


Exhibit 7: LAS Aircraft Arrival Fleet Mix - October 2019**



** Overall Total: Note that operation type and runway use counts are estimated by Harris Corp. EnvironmentalVue Noise and Monitoring Operations 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* - October 2019 to 2017

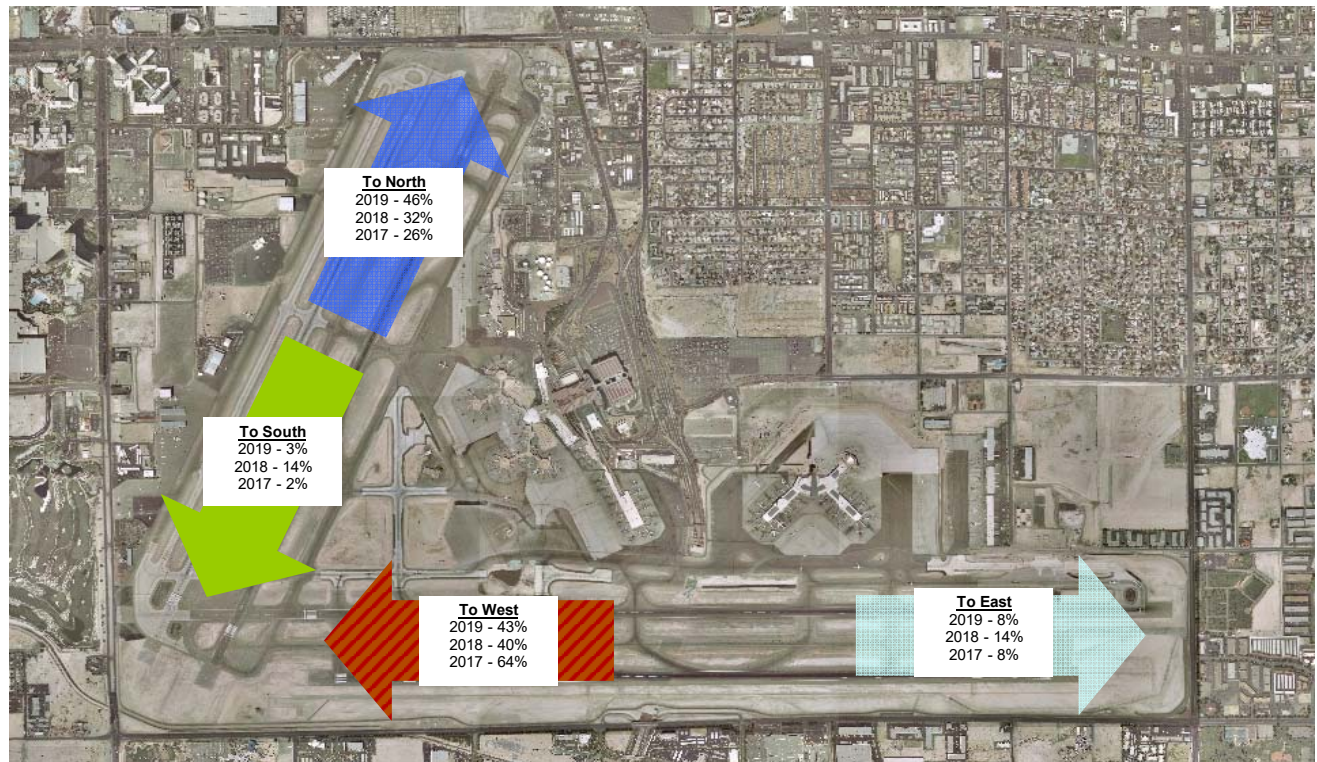
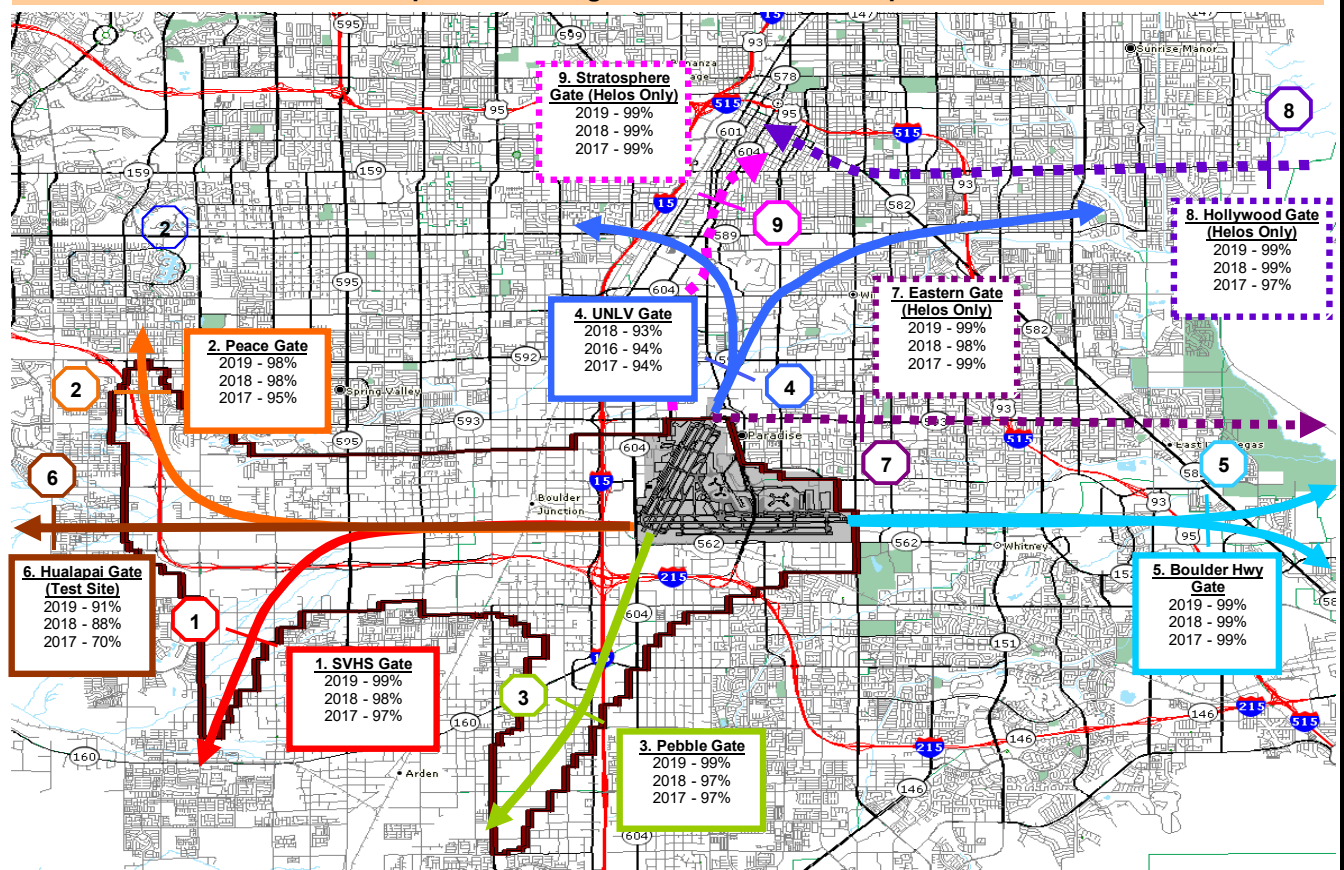


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - October 2019



* 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 10: Land Use Application Reviews & Comments - October 2019

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
No. of Land Use Applications Reviewed	142	52	130	11	335
No. of Applications where CCDOA Issued a Comment	14	4	1	1	20
Percent of Applications where Comment Issued	10%	8%	1%	9%	6%

Exhibit 11: Land Use Application Comments by Airport Concern - October 2019

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Deed Restrictions	0	0	0	0	0
Height-Penetrates Part 77 100:1 Surfaces/>200'	4	1	1	0	6
Height-Penetrates Part 77 PATH-C Surfaces*	0	0	0	0	0
Helipad/Helipad	0	0	0	0	0
Noisy-Commercial within AEOD**	3	0	0	0	3
Noisy-Residential within the AEOD**	1	0	0	0	1
Noisy-Residential Just Outside the AEOD**	7	3	0	1	11
Total***	15	4	1	1	21

* Primary, Approach, Transition, Horizontal, Conical as defined by Federal Aviation Regulation (FAR) Part 77.

**AEOD-Airport Environs Overlay District (defined below).

***Comment Concern totals will not always match Comment Applications total. Some applications are issued more than one type of CCDOA comment.

Exhibit 12: Dwelling Units per Commented Application* - October 2019

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Within the AEOD	480	0	0	0	480
Just Outside the AEOD	792	602	0	22	1,416

*Due to high variability in many land use proposals, dwelling units proposed may not reflect actual number of units built. In addition, some projects will require more than one type of application, resulting in the project total counted more than once.

Exhibit 13: Land Use Applications Denied and/or Opposed - October 2019

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Recommend Denial	0	0	0	0	0
Opposed at Hearings	0	0	0	0	0

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - October 2019

AEOD - Airport Environs Overlay Districts - Noise Contours
Clark County Code (CCC) 30.48.010. The AEOD is established to:

1. Provide for a range of uses compatible with airport hazard and noise exposure areas.
2. Prohibit the development of incompatible uses that are detrimental to the general health, safety, and welfare.
3. Require noise attenuated construction, as indicated by Table 30.48-AE, in accordance with the noise attenuation construction standards of Chapter 22.22 of the CCC, within these airport environs. The regulations of the AEOD shall supersede the regulations of the underlying district if there is a conflict.
4. Comply with the Federal Aviation Administration regulations.

2008-Most recent update to the AEOD in CCC, updated the AEOD for McCarran (LAS), and added an AEOD to the North Las Vegas Airport (VGT) and the Henderson Executive Airport (HND).

2011-AEOD adopted by the cities of North Las Vegas and Henderson.

The AEOD has not been formally adopted by the City of Las Vegas. Only a small, already developed portion of the VGT AEOD lies within the incorporated City of Las Vegas boundaries.

Salmon color indicates a 1 mile zone outside the AEOD.

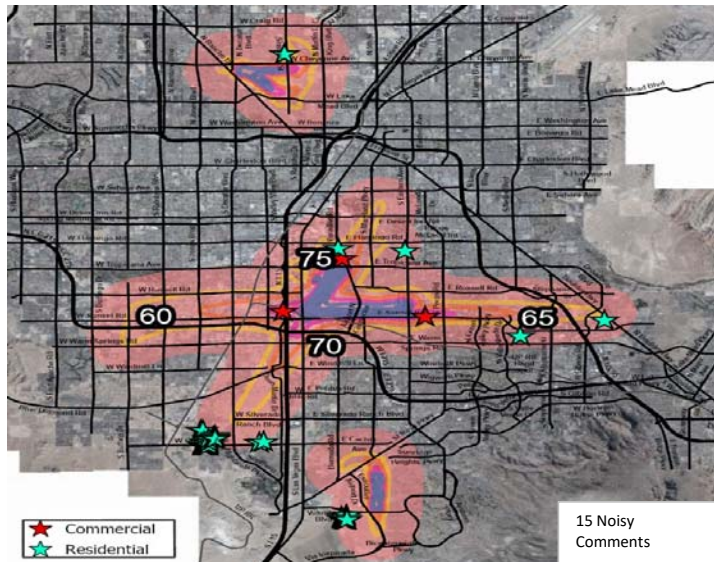


Exhibit 15: Noisy Comments - LAS Detail - October 2019

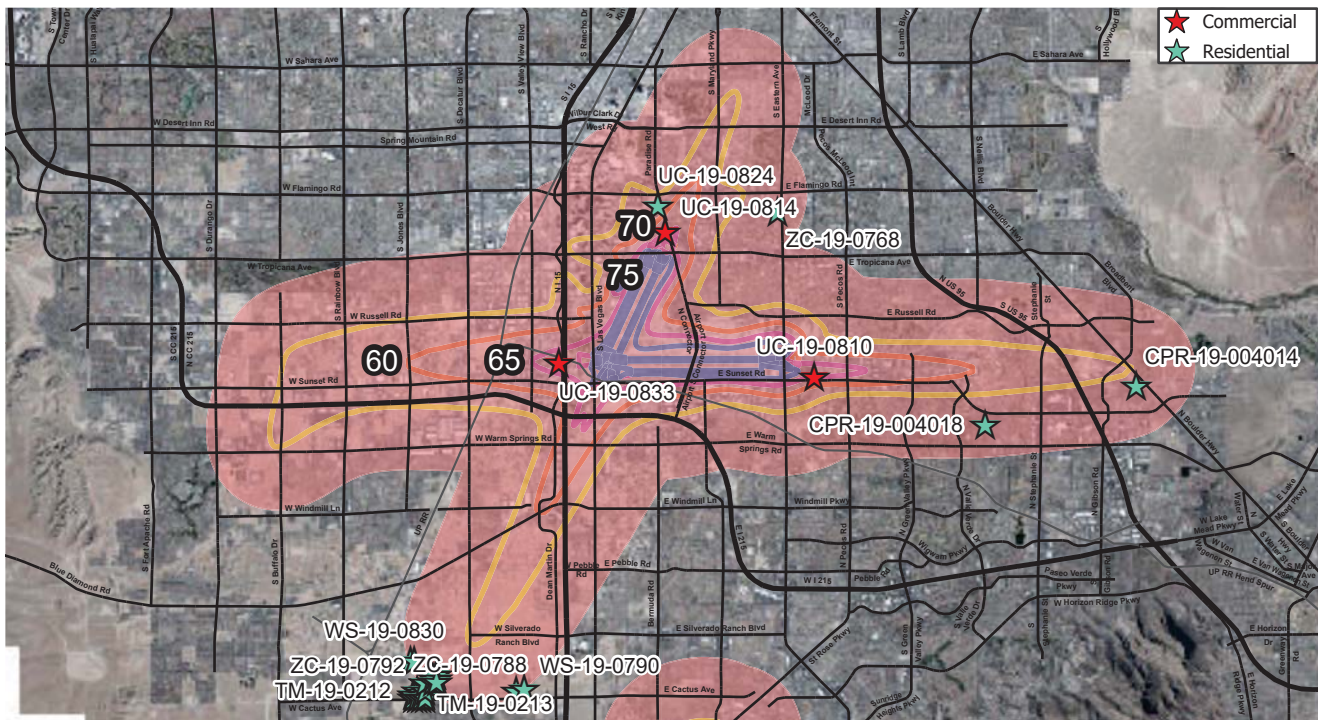


Exhibit 16: Noisy Comments - HND Detail - October 2019

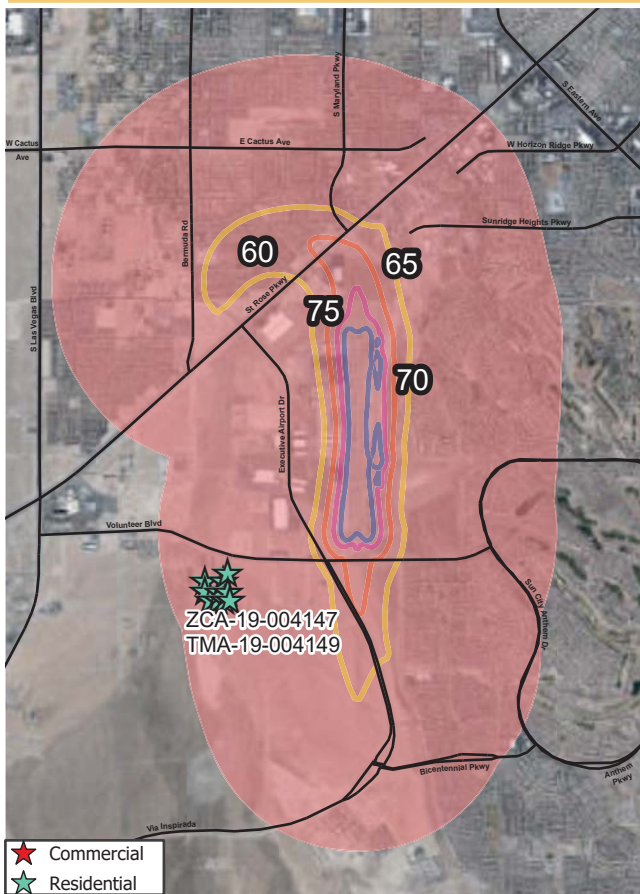


Exhibit 17: Noisy Comments - VGT Detail - October 2019

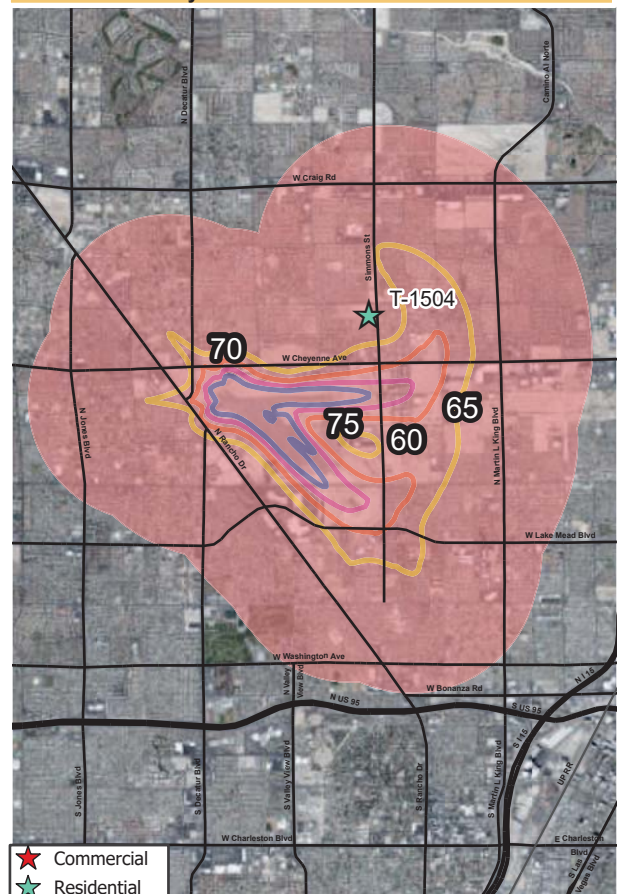


Exhibit 1: Noise Complaint Calls by Community* - November 2019

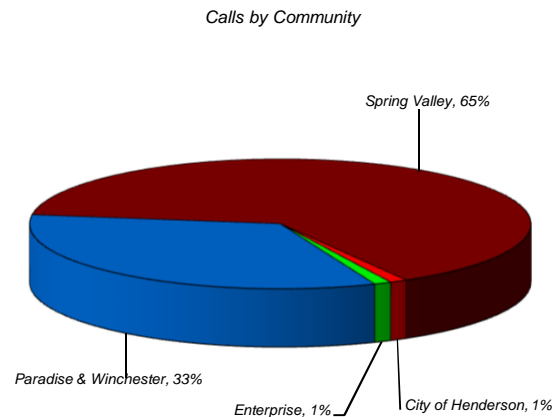
Community	No. of Calls in 2019	No. of Callers in 2019	No. of Calls in 2018	No. of Calls in 2017
City of Boulder City	1	1	1	3
City of Henderson			9	1
City of Las Vegas			2	
City of North Las Vegas				
Enterprise	1	1	8	5
Lone Mountain				
Paradise & Winchester	30	8	24	5
Spring Valley	58	4	39	10
Summerlin South			1	
Sunrise Manor				
Whitney			1	
Location unknown			1	
Overall Total	90	14	86	24

Difference between 2019 and 2018 Total Calls: 5%

Difference between 2019 and 2017 Total Calls: 275%

Average Number of Calls per Caller: 6.4

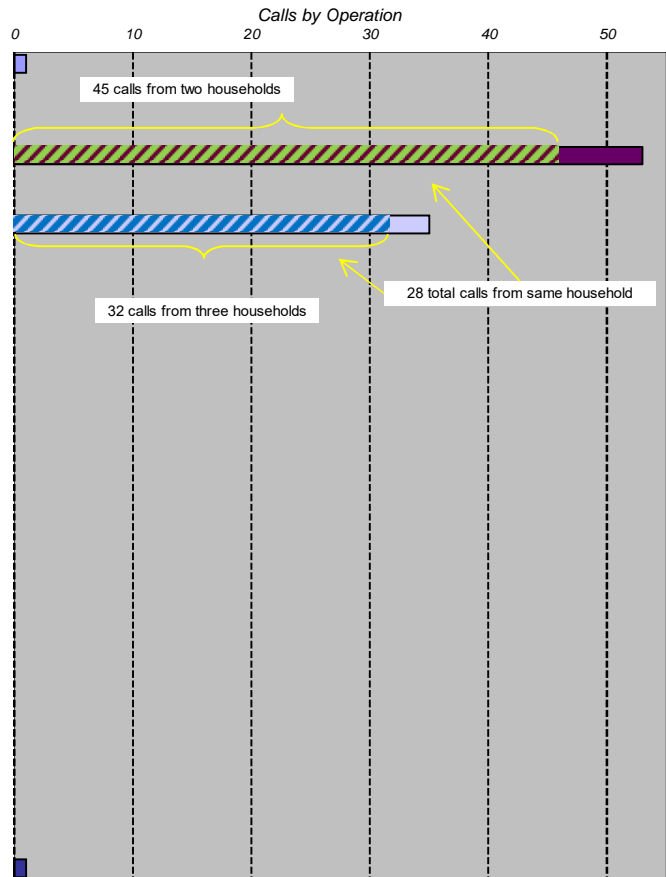
Most calls received from one household: 28



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

Exhibit 2: Noise Complaint Calls by Type of Operation - November 2019

Operation	No. of Calls in 2019	Percent of Overall Total	No. of Calls in 2018	No. of Calls in 2017
LAS 01R/L Arrivals	1	1.1%	5	
LAS 08R/L Arrivals				1
LAS 19R/L Arrivals			1	1
LAS 26R/L Arrivals				
LAS 01R/L Departures	53	58.9%	53	7
LAS 08R/L Departures				2
LAS 19R/L Departures				10
LAS 26R/L Departures	35	38.9%	22	
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	89	98.9%	81	21
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			3	
VGT Other				
VGT Total	0	0.0%	3	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA				2
HND Other				
HND Total	0	0.0%	0	2
Helicopters**	1	1.1%	2	1
Overall Total	90	100%	86	24



** 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 - Nov 2019

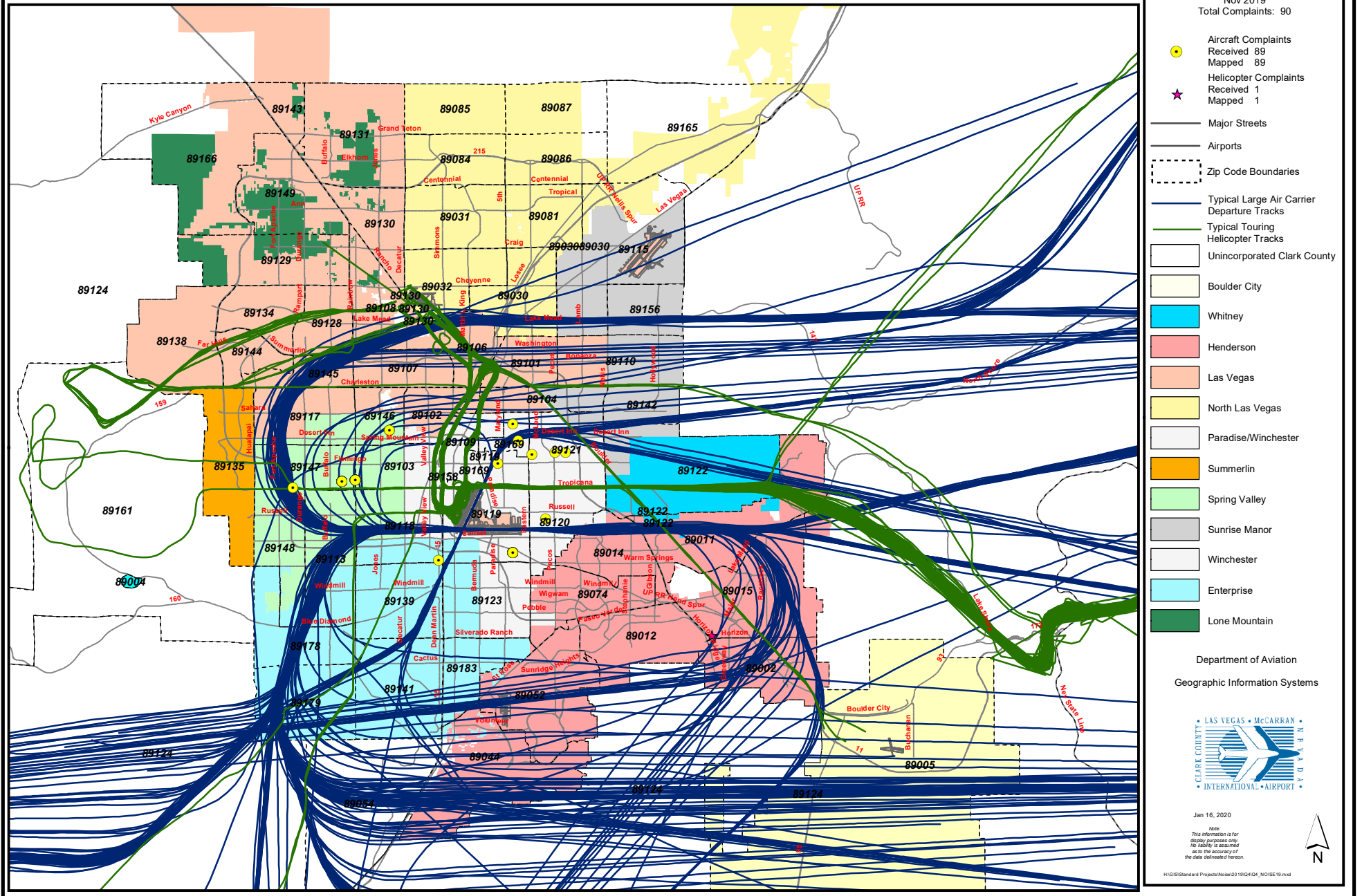
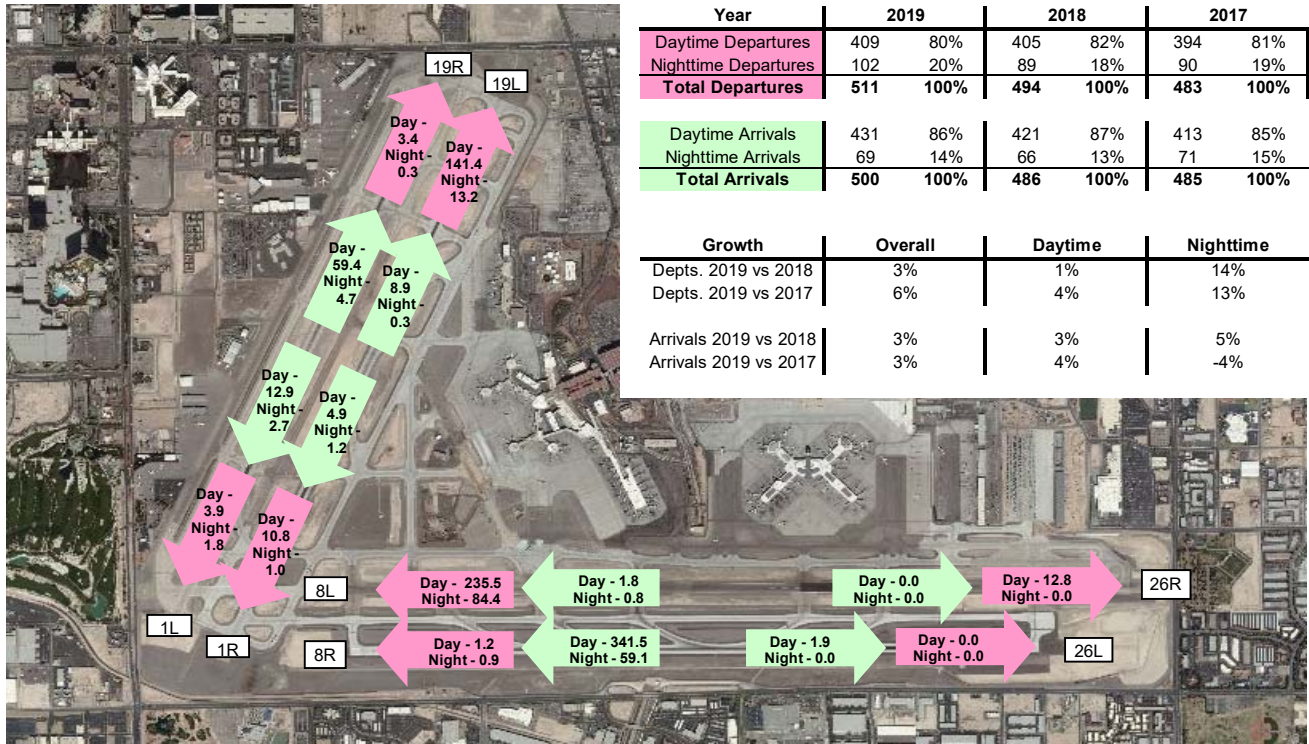
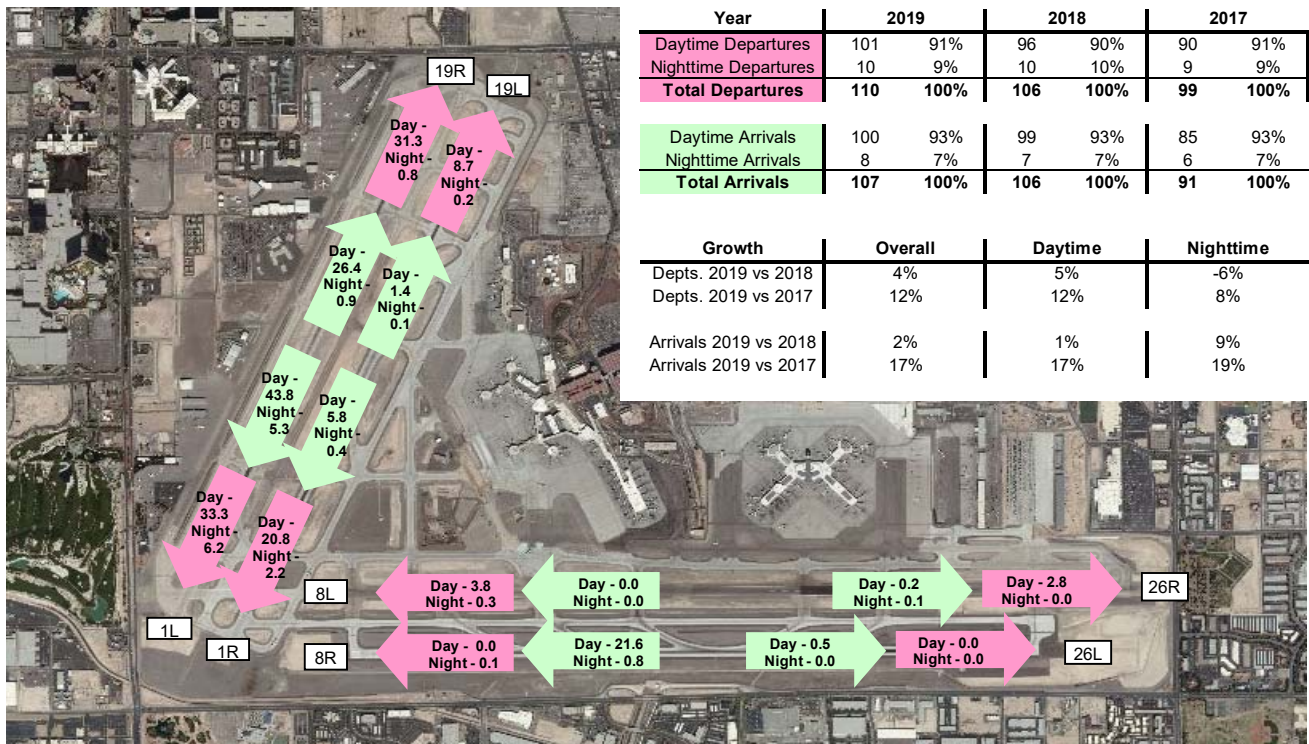


Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - November 2019



* 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** - November 2019



** 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* - November 2019

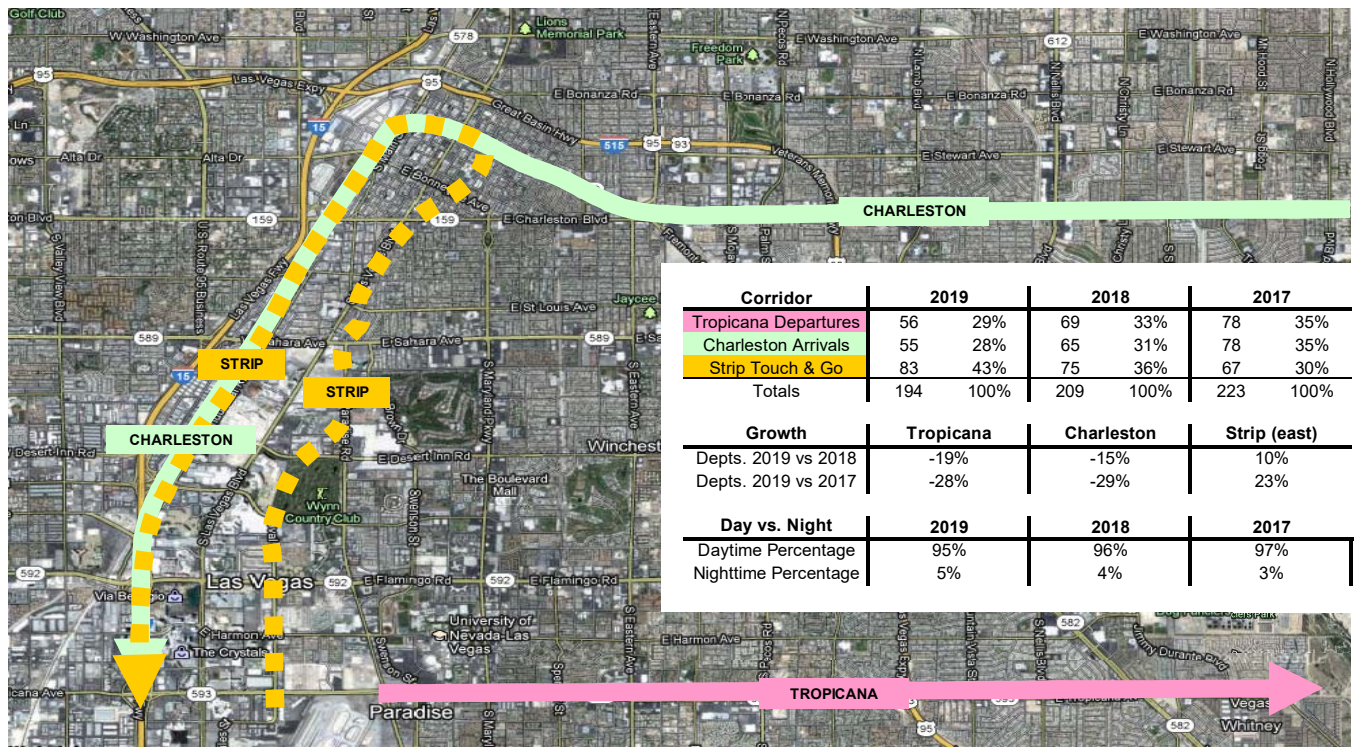
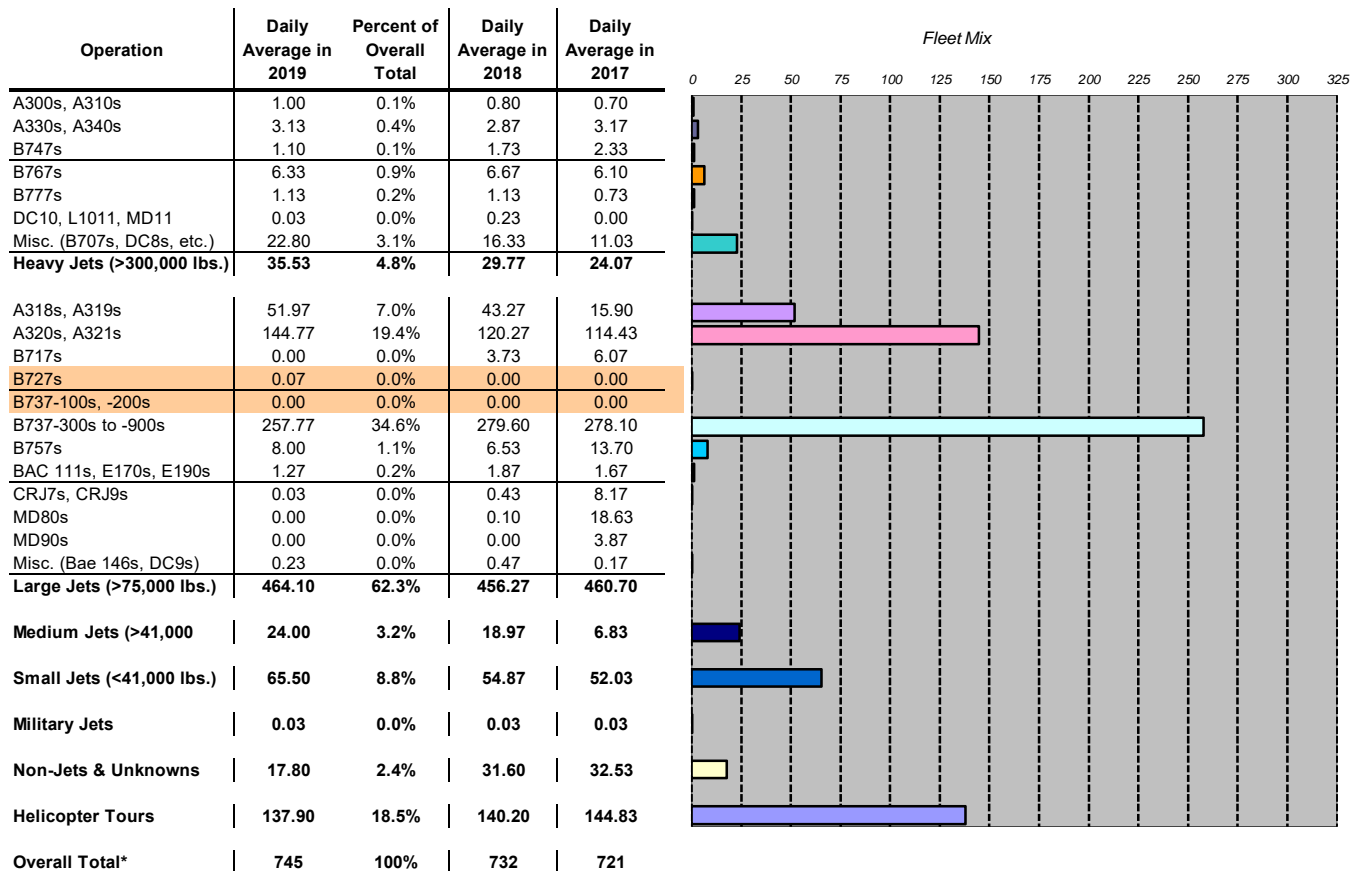


Exhibit 7: LAS Aircraft Arrival Fleet Mix** - November 2019



** Overall Total: Note that operation type and runway use counts are estimated by Harris Corp. EnvironmentalVue Noise and Monitoring Operations 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* - November 2019 to 2017

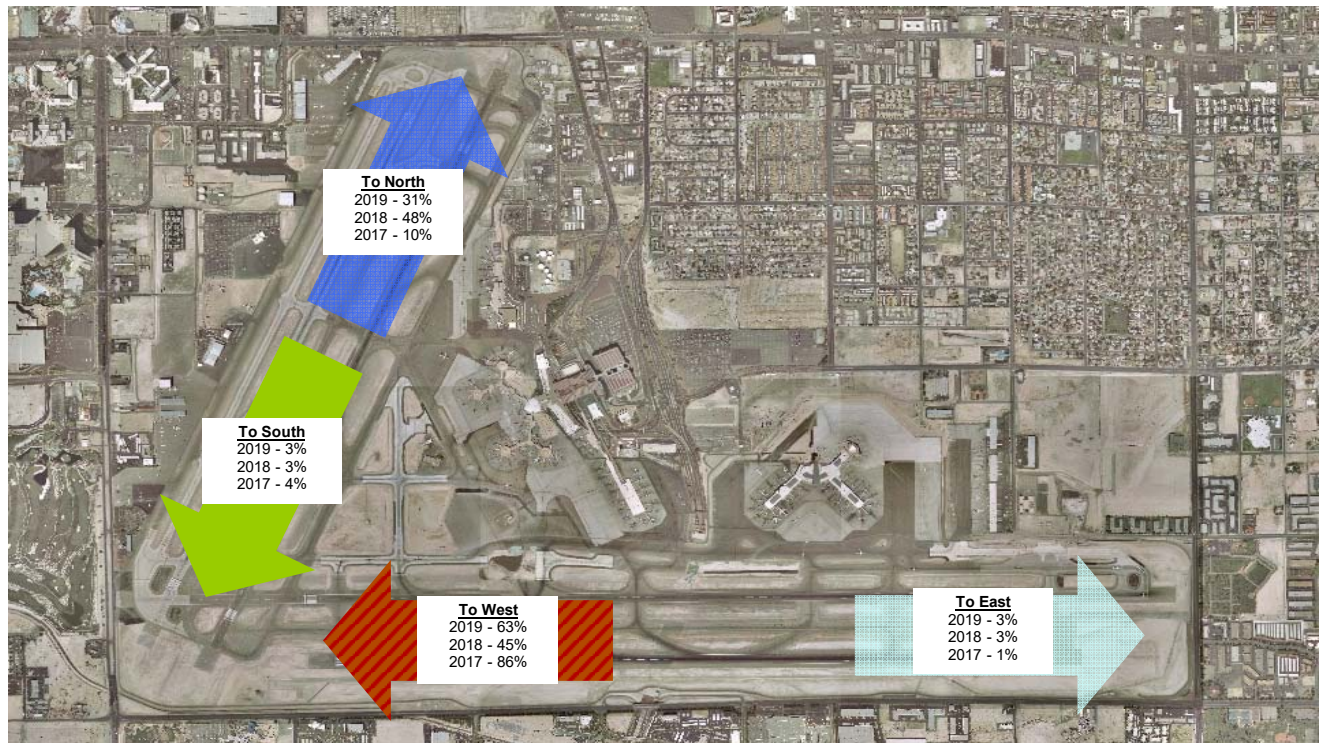
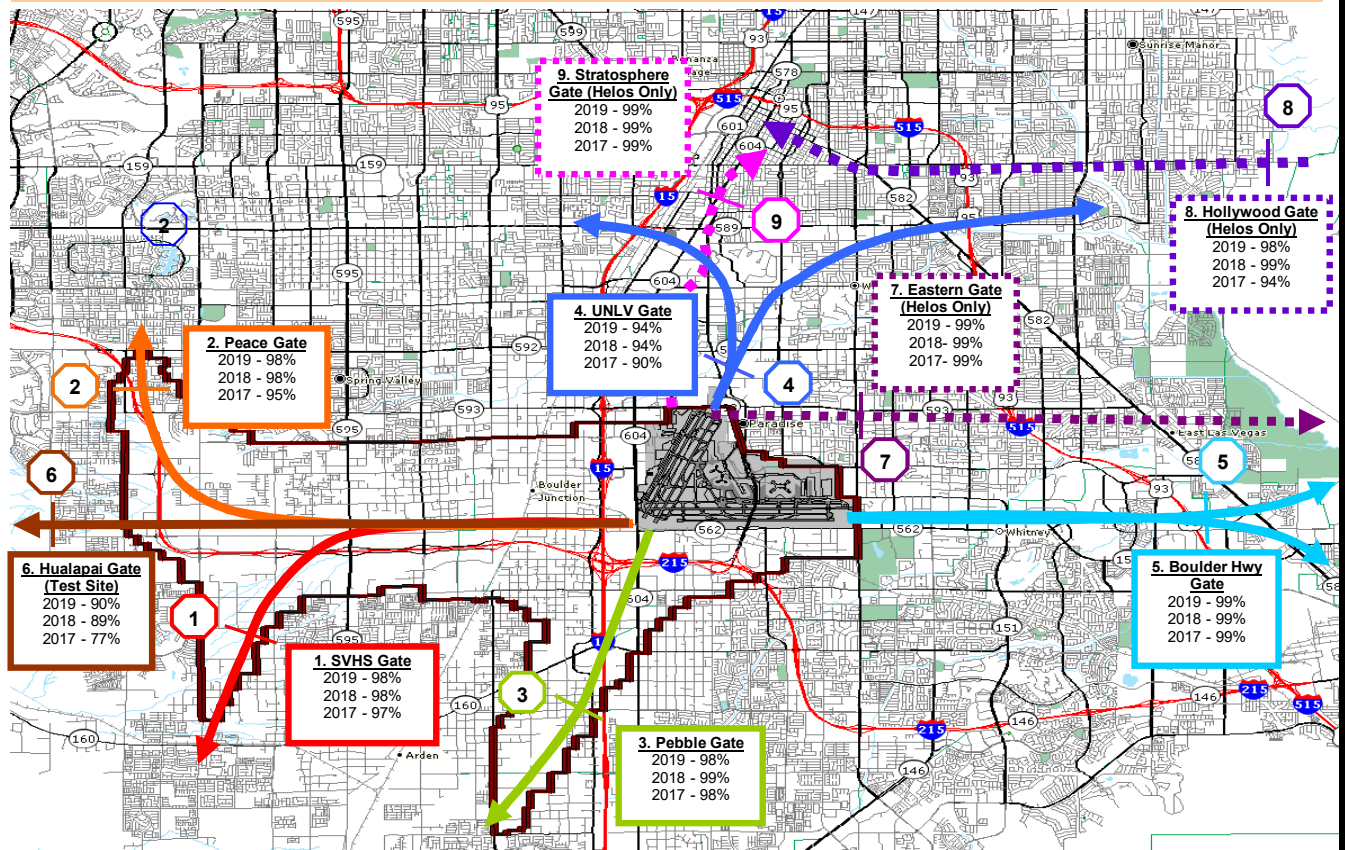


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - November 2019



* Aircraft types: All aircraft with a maximum gross take 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 10: Land Use Application Reviews & Comments - November 2019

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
No. of Land Use Applications Reviewed	121	46	0	15	182
No. of Applications where CCDOA Issued a Comment	8	7	0	0	15
Percent of Applications where Comment Issued	7%	15%	#DIV/0!	0%	8%

Exhibit 11: Land Use Application Comments by Airport Concern - November 2019

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Deed Restrictions	0	0	0	0	0
Height-Penetrates Part 77 100:1 Surfaces/>200'	4	4	0	0	8
Height-Penetrates Part 77 PATH-C Surfaces*	0	0	0	0	0
Helipad/Helipad	0	0	0	0	0
Noisy-Commercial within AEOD**	1	0	0	0	1
Noisy-Residential within the AEOD**	1	0	0	0	1
Noisy-Residential Just Outside the AEOD**	4	4	0	0	8
Total***	10	8	0	0	18

* Primary, Approach, Transition, Horizontal, Conical as defined by Federal Aviation Regulation (FAR) Part 77.

**AEOD-Airport Environs Overlay District (defined below).

***Comment Concern totals will not always match Comment Applications total. Some applications are issued more than one type of CCDOA comment.

Exhibit 12: Dwelling Units per Commented Application* - November 2019

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Within the AEOD	4	0	0	0	4
Just Outside the AEOD	514	712	0	0	1,226

*Due to high variability in many land use proposals, dwelling units proposed may not reflect actual number of units built. In addition, some projects will require more than one type of application, resulting in the project total counted more than once.

Exhibit 13: Land Use Applications Denied and/or Opposed - November 2019

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Recommend Denial	0	0	0	0	0
Opposed at Hearings	0	0	0	0	0

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - November 2019

AEOD - Airport Environs Overlay Districts - Noise Contours
Clark County Code (CCC) 30.48.010. The AEOD is established to:

1. Provide for a range of uses compatible with airport hazard and noise exposure areas.
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4. Comply with the Federal Aviation Administration regulations.

2008-Most recent update to the AEOD in CCC, updated the AEOD for McCarran (LAS), and added an AEOD to the North Las Vegas Airport (VGT) and the Henderson Executive Airport (HND).

2011-AEOD adopted by the cities of North Las Vegas and Henderson.

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Salmon color indicates a 1 mile zone outside the AEOD.

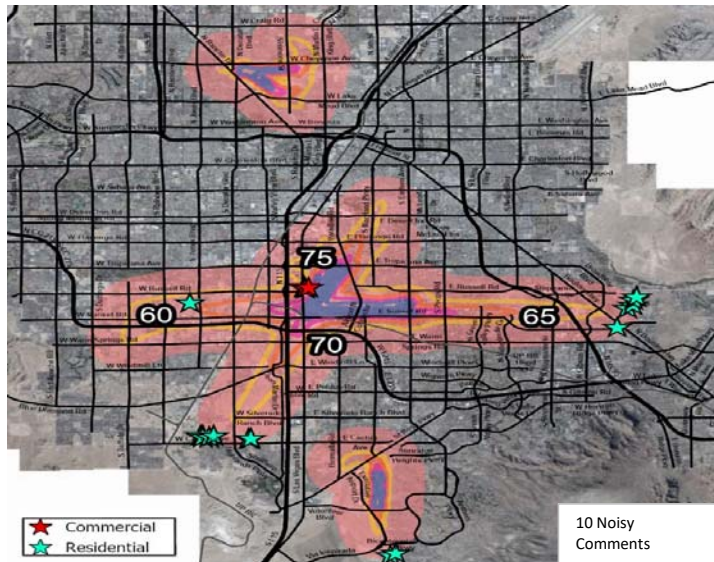


Exhibit 15: Noisy Comments - LAS Detail - November 2019

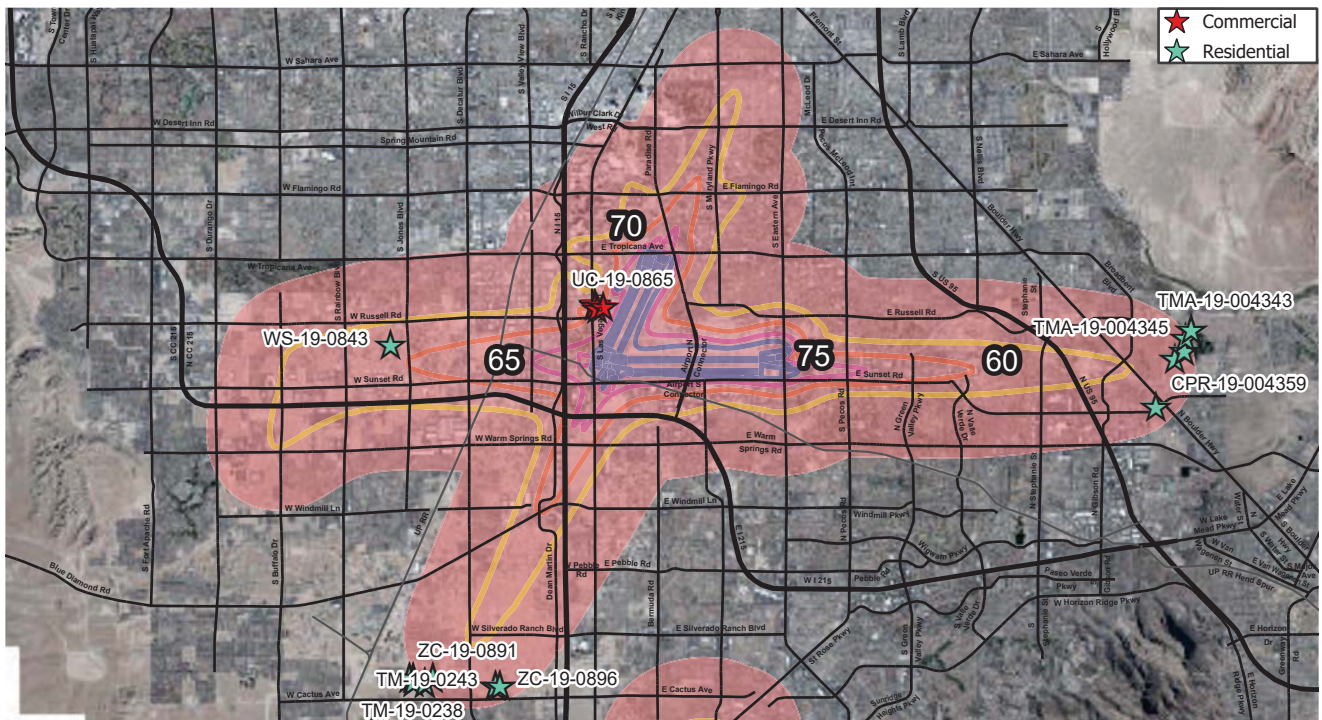


Exhibit 16: Noisy Comments - HND Detail - November 2019

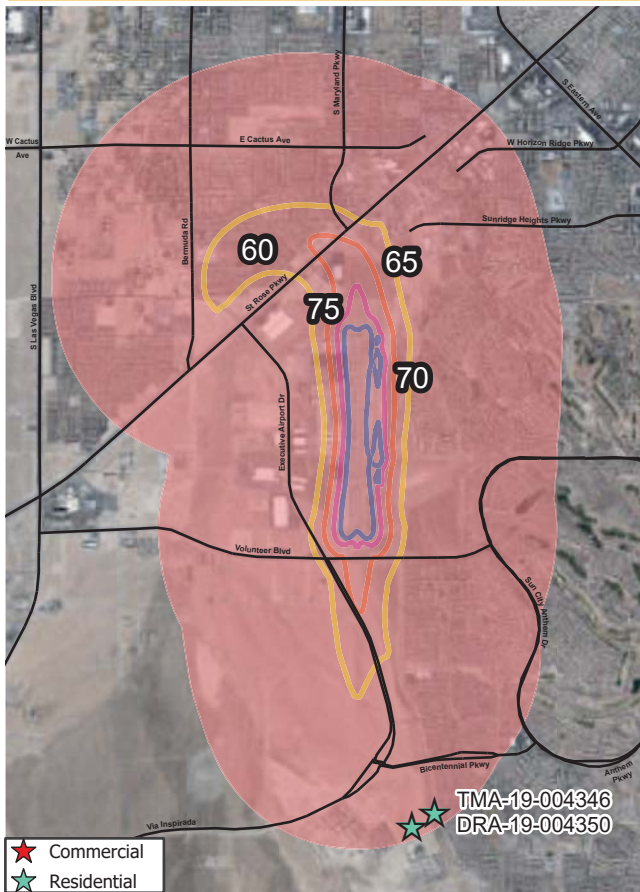


Exhibit 17: Noisy Comments - VGT Detail - November 2019

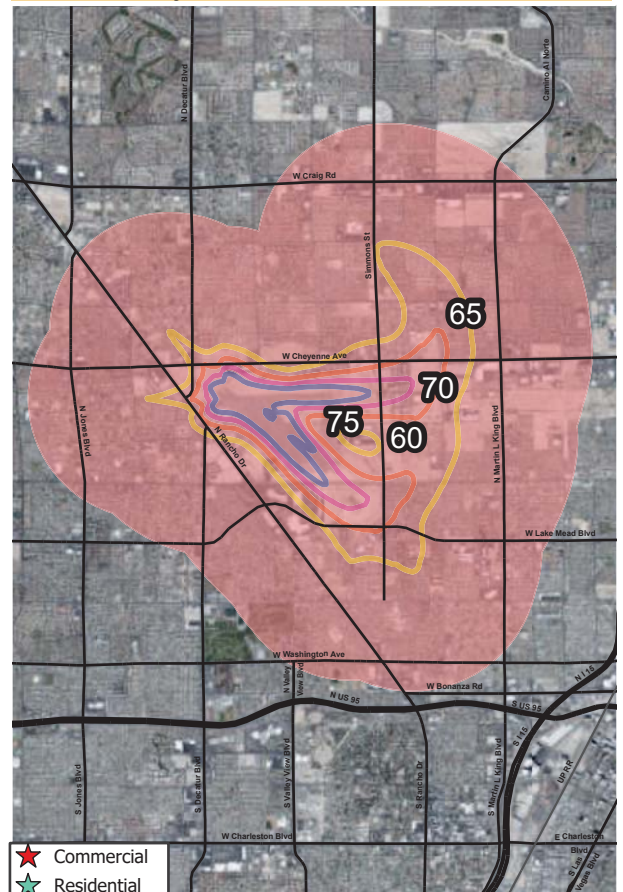


Exhibit 1: Noise Complaint Calls by Community* - December 2019

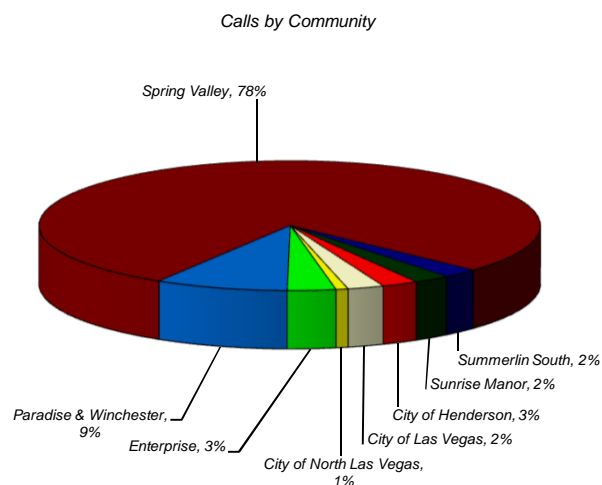
Community	No. of Calls in 2019	No. of Callers in 2019	No. of Calls in 2018	No. of Calls in 2017
City of Boulder City	3	3	3	3
City of Henderson	3	3	2	
City of Las Vegas	1	1		
City of North Las Vegas	4	3	4	3
Enterprise	11	8	4	15
Lone Mountain	101	12	53	6
Paradise & Winchester	3	3	1	
Spring Valley	3	2		
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	129	35	67	27

Difference between 2019 and 2018 Total Calls: 93%

Difference between 2019 and 2017 Total Calls: 378%

Average Number of Calls per Caller: 3.7

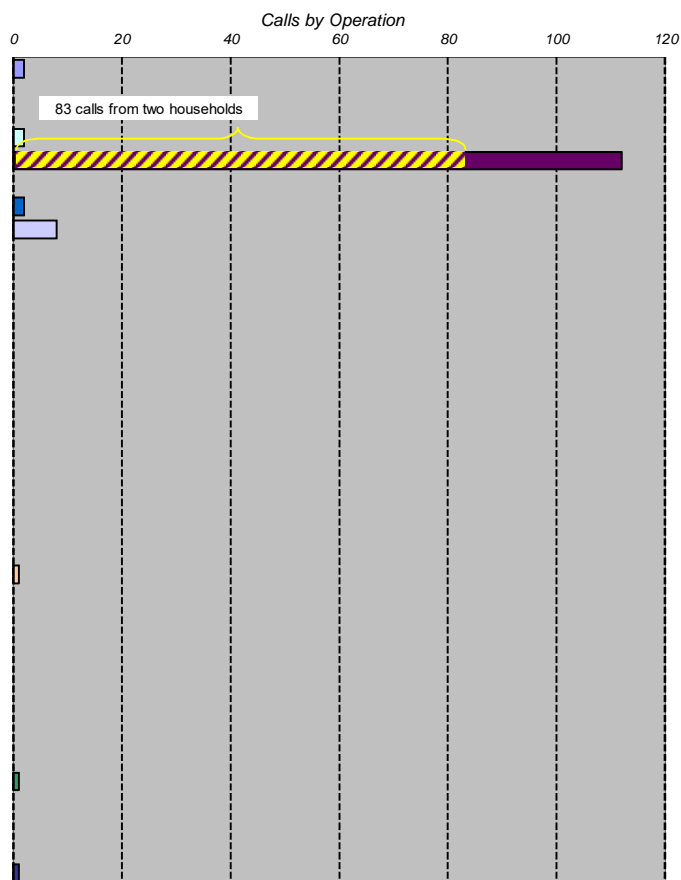
Most calls received from one household: 49



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

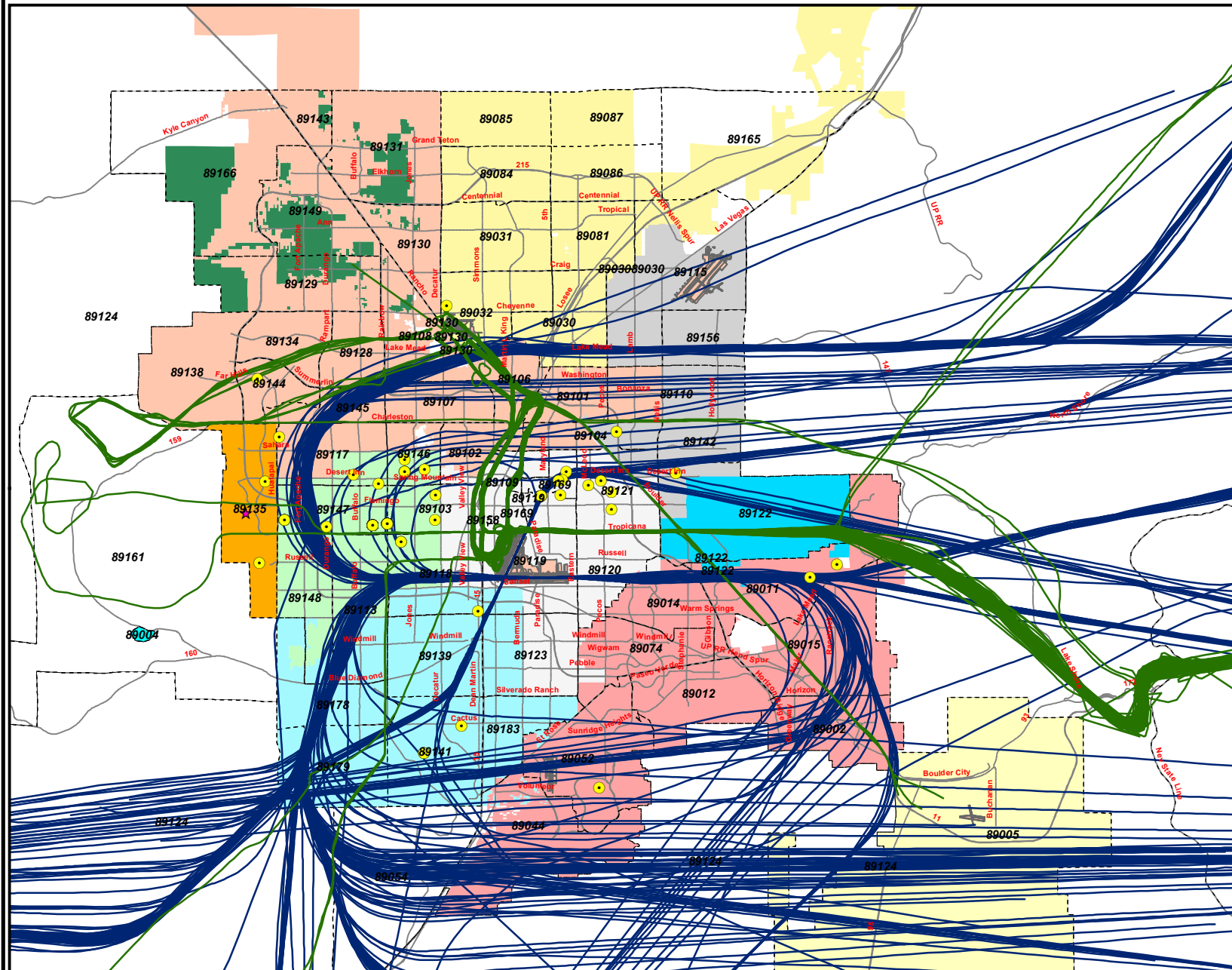
Exhibit 2: Noise Complaint Calls by Type of Operation - December 2019

Operation	No. of Calls in 2019	Percent of Overall Total	No. of Calls in 2018	No. of Calls in 2017
LAS 01R/L Arrivals	2	1.6%	1	1
LAS 08R/L Arrivals				
LAS 19R/L Arrivals				
LAS 26R/L Arrivals	2	1.6%		1
LAS 01R/L Departures	112	86.8%	15	18
LAS 08R/L Departures				
LAS 19R/L Departures	2	1.6%	1	
LAS 26R/L Departures	8	6.2%	47	4
LAS Run-ups				1
LAS GA				
LAS Other				
LAS Total	126	97.7%	64	25
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA	1	0.8%		
VGT Other				
VGT Total	1	0.8%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	0.8%	2	2
HND Other				
HND Total	1	0.8%	2	2
Helicopters**	1	0.8%	1	
Overall Total	129	100%	67	27



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

Exhibit 3: Aircraft Noise Complaints by Community - Dec 2019



Legend

Dec 2019
Total Complaints: 129

- Aircraft Complaints Received 128 Mapped 128
- ★ Helicopter Complaints Received 1 Mapped 1
- Major Streets
- Airports
- - - Zip Code Boundaries
- Typical Large Air Carrier Departure Tracks
- Typical Touring Helicopter Tracks
- 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
Geographic Information Systems



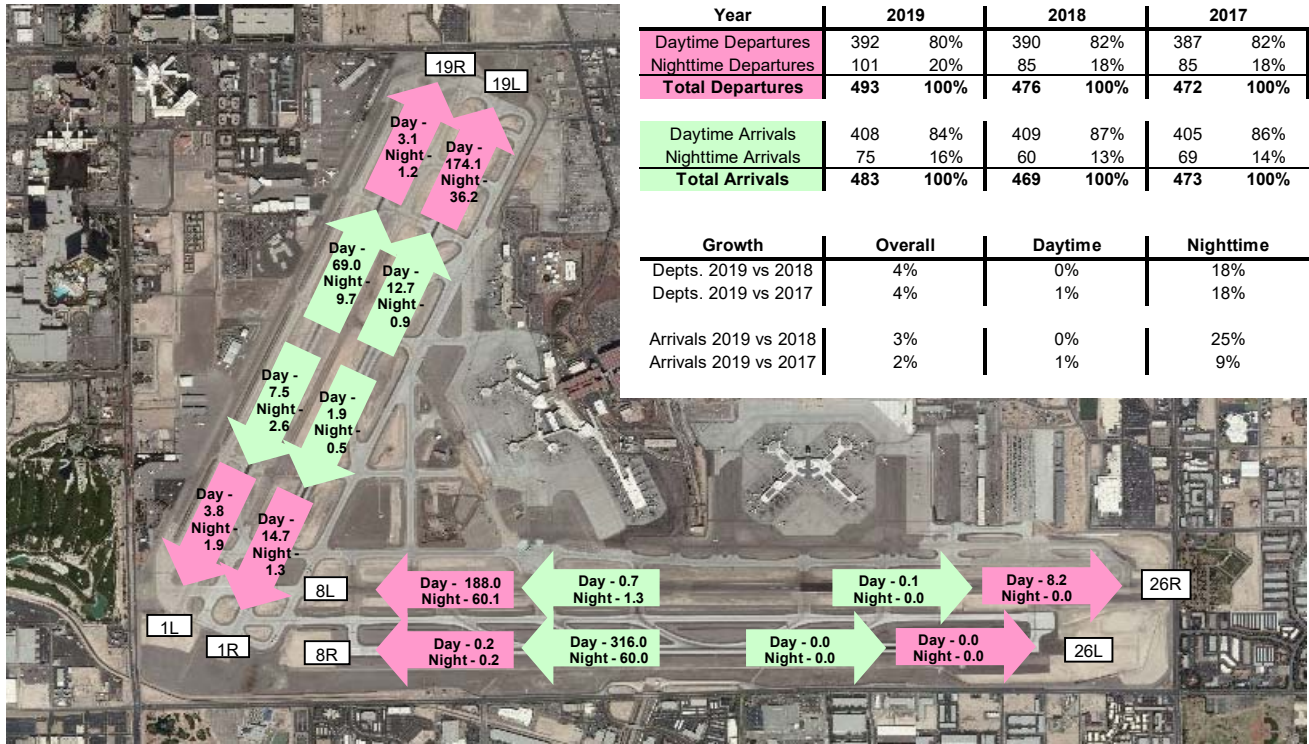
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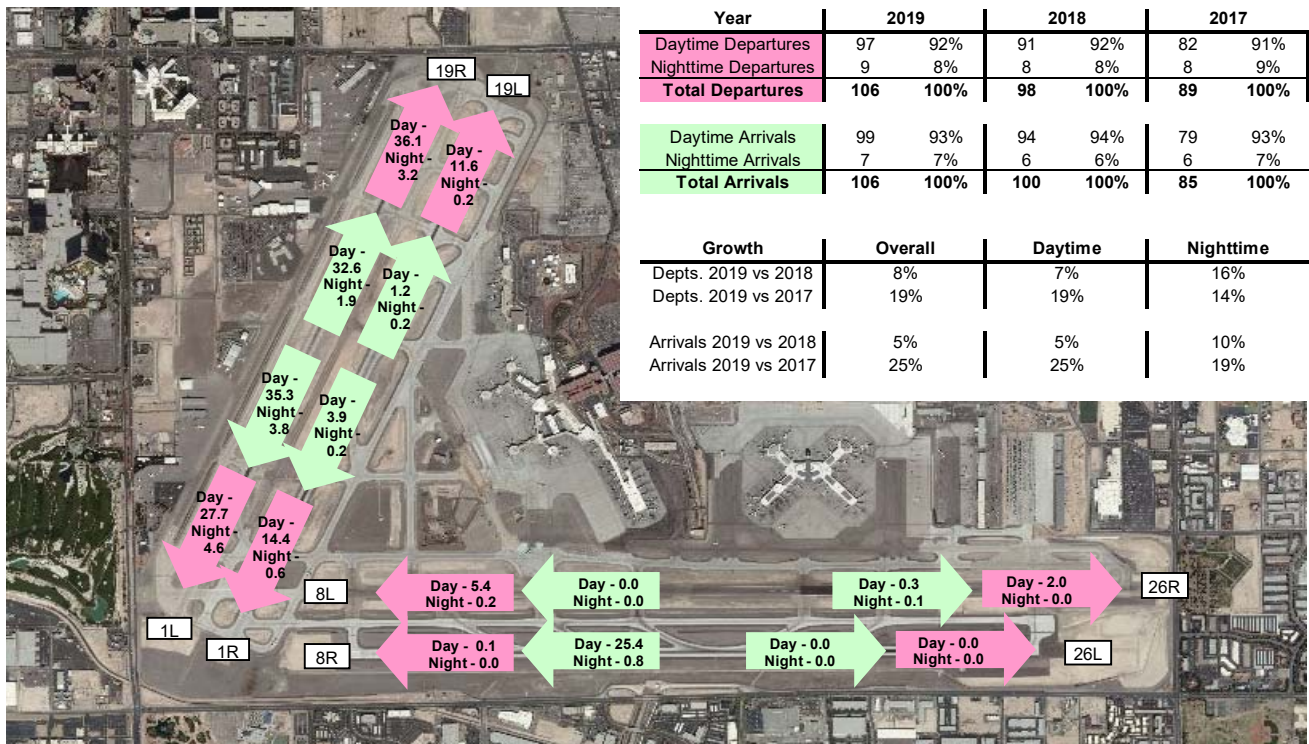


Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - December 2019



* 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** - December 2019



** 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* - December 2019

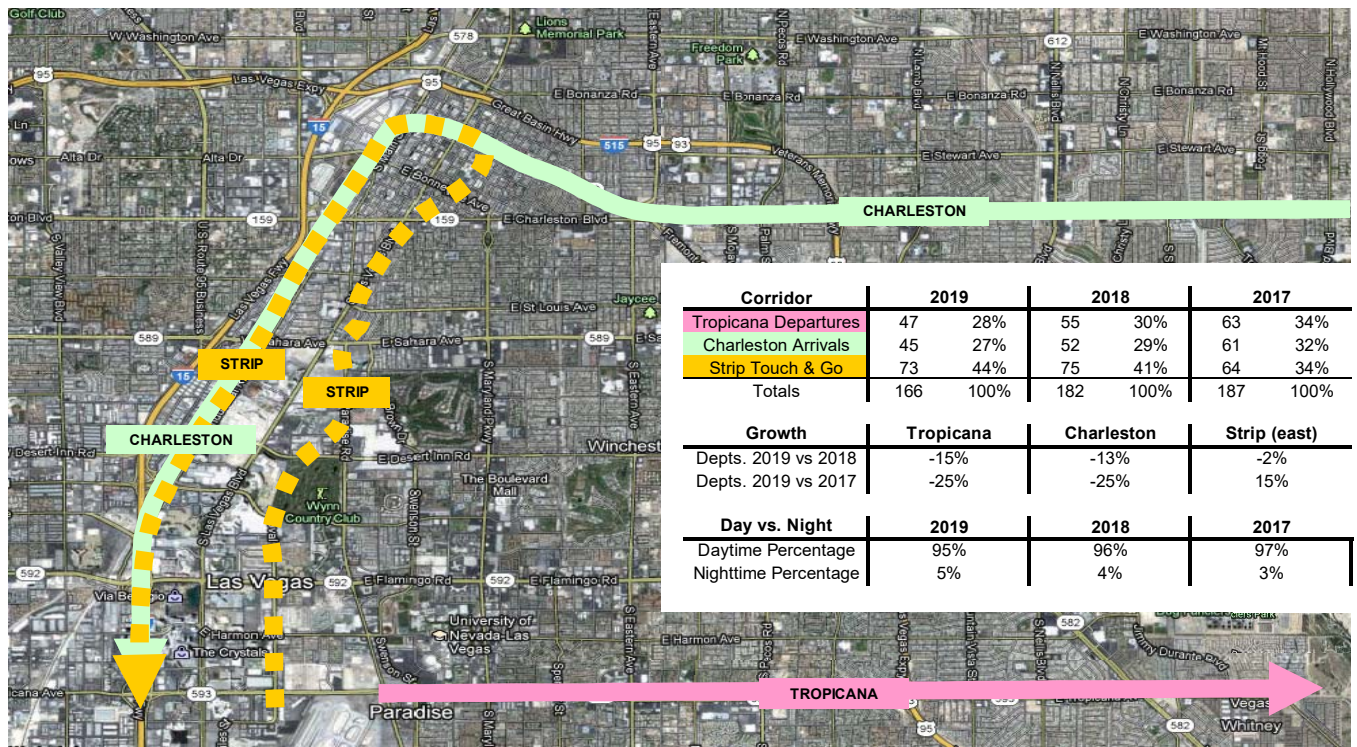
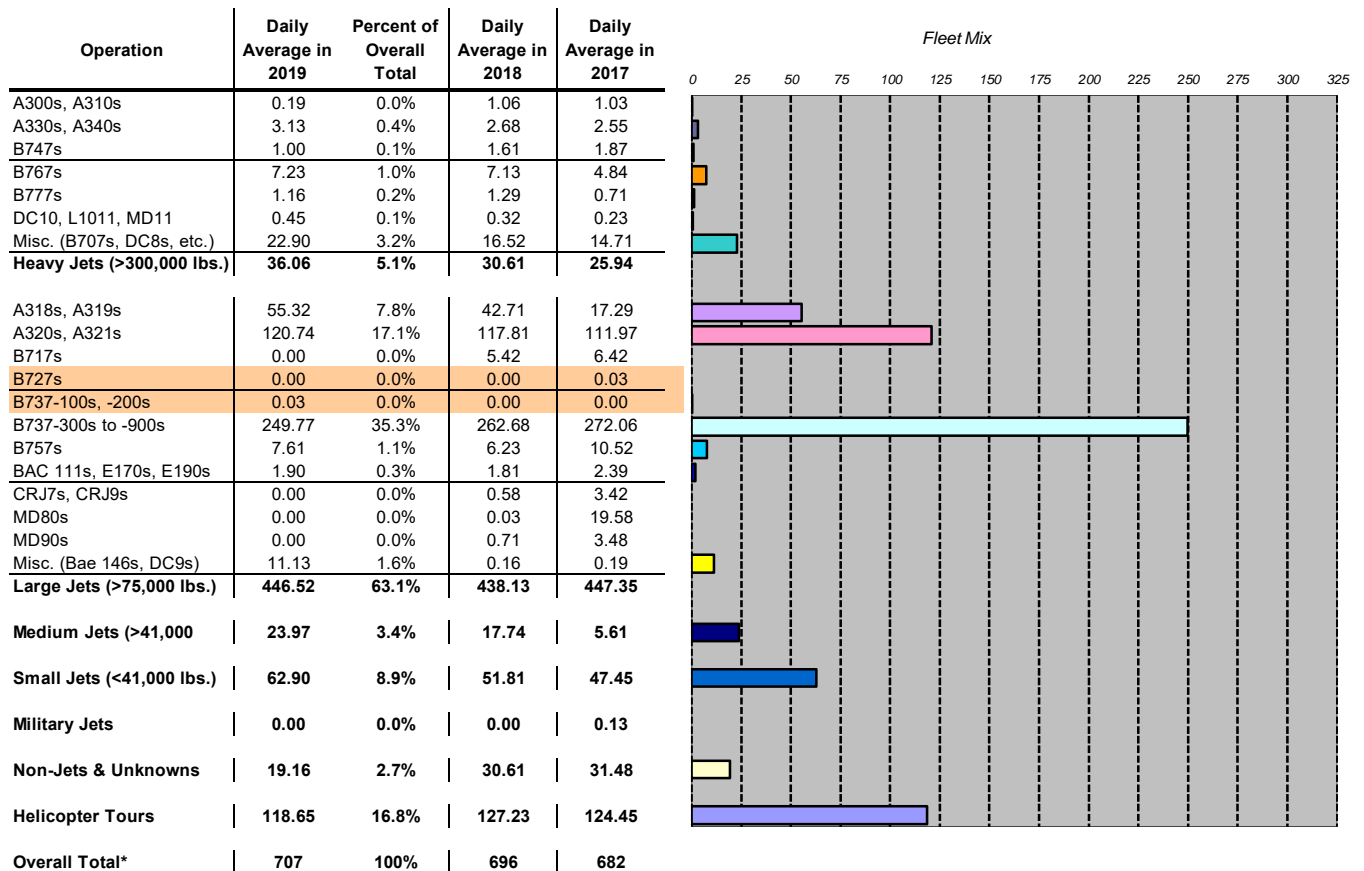


Exhibit 7: LAS Aircraft Arrival Fleet Mix** - December 2019



** Overall Total: Note that operation type and runway use counts are estimated by Harris Corp. EnvironmentalVue Noise and Monitoring Operations 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* - December 2019 to 2017

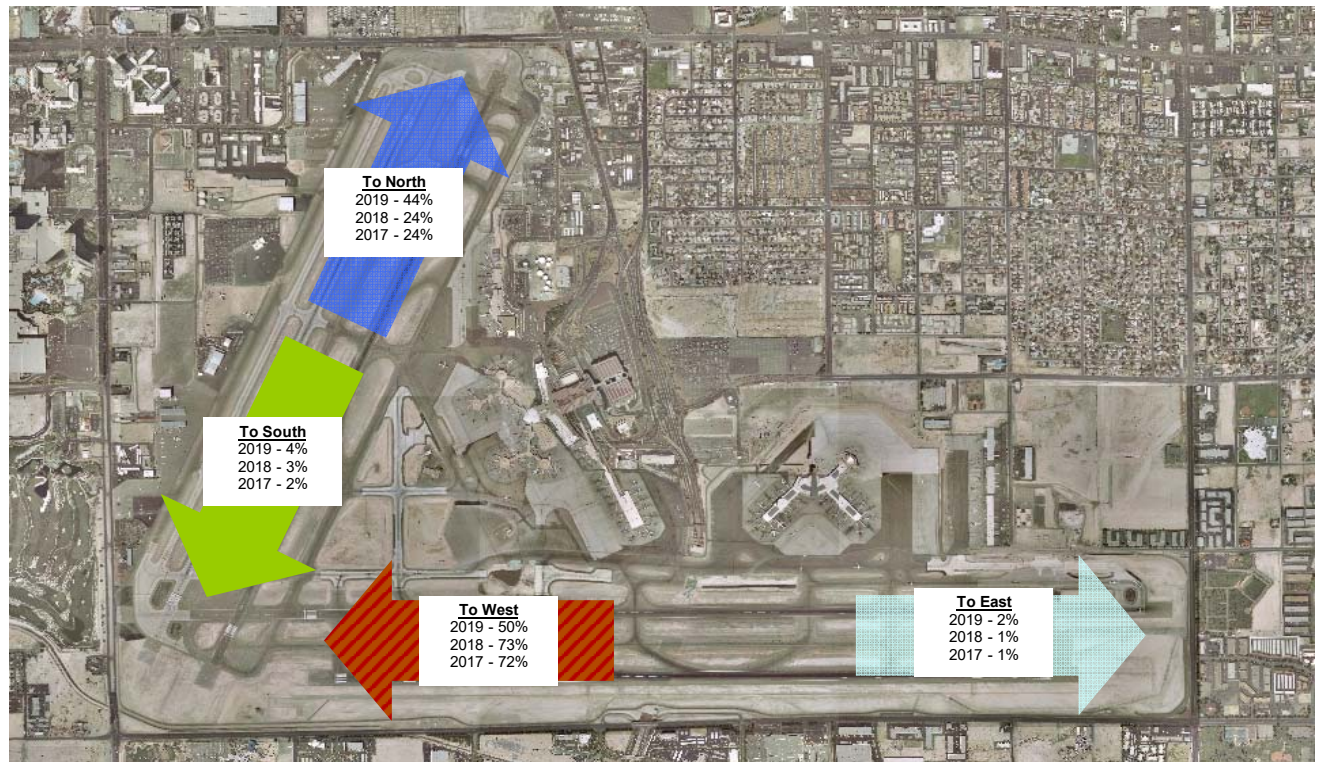
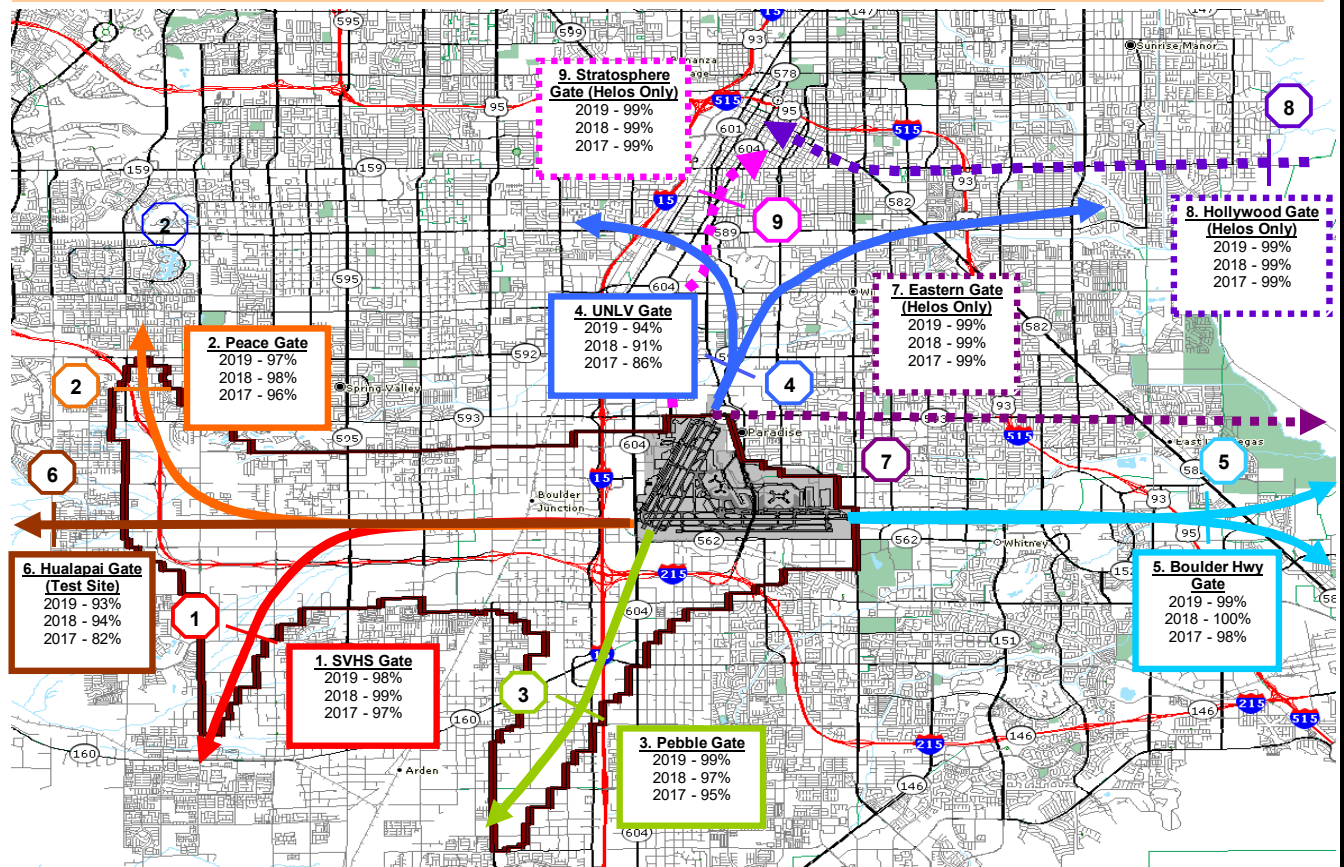


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - December 2019



* 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 10: Land Use Application Reviews & Comments - December 2019

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
No. of Land Use Applications Reviewed	160	16	80	11	267
No. of Applications where CCDOA Issued a Comment	15	2	0	0	17
Percent of Applications where Comment Issued	9%	13%	0%	0%	6%

Exhibit 11: Land Use Application Comments by Airport Concern - December 2019

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Deed Restrictions	0	0	0	0	0
Height-Penetrates Part 77 100:1 Surfaces/>200'	4	2	0	0	6
Height-Penetrates Part 77 PATH-C Surfaces*	2	0	0	0	2
Helipad/Helipad	0	0	0	0	0
Noisy-Commercial within AEOD**	4	0	0	0	4
Noisy-Residential within the AEOD**	0	0	0	0	0
Noisy-Residential Just Outside the AEOD**	8	0	0	0	8
Total***	18	2	0	0	20

* Primary, Approach, Transition, Horizontal, Conical as defined by Federal Aviation Regulation (FAR) Part 77.

**AEOD-Airport Environs Overlay District (defined below).

***Comment Concern totals will not always match Comment Applications total. Some applications are issued more than one type of CCDOA comment.

Exhibit 12: Dwelling Units per Commented Application* - December 2019

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Within the AEOD	0	0	0	0	0
Just Outside the AEOD	1,328	0	0	0	1,328

*Due to high variability in many land use proposals, dwelling units proposed may not reflect actual number of units built. In addition, some projects will require more than one type of application, resulting in the project total counted more than once.

Exhibit 13: Land Use Applications Denied and/or Opposed - December 2019

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Recommend Denial	0	0	0	0	0
Opposed at Hearings	0	0	0	0	0

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - December 2019

AEOD - Airport Environs Overlay Districts - Noise Contours
Clark County Code (CCC) 30.48.010. The AEOD is established to:

1. Provide for a range of uses compatible with airport hazard and noise exposure areas.
2. Prohibit the development of incompatible uses that are detrimental to the general health, safety, and welfare.
3. Require noise attenuated construction, as indicated by Table 30.48-AE, in accordance with the noise attenuation construction standards of Chapter 22.22 of the CCC, within these airport environs. The regulations of the AEOD shall supersede the regulations of the underlying district if there is a conflict.
4. Comply with the Federal Aviation Administration regulations.

2008-Most recent update to the AEOD in CCC, updated the AEOD for McCarran (LAS), and added an AEOD to the North Las Vegas Airport (VGT) and the Henderson Executive Airport (HND).

2011-AEOD adopted by the cities of North Las Vegas and Henderson.

The AEOD has not been formally adopted by the City of Las Vegas. Only a small, already developed portion of the VGT AEOD lies within the incorporated City of Las Vegas boundaries.

Salmon color indicates a 1 mile zone outside the AEOD.

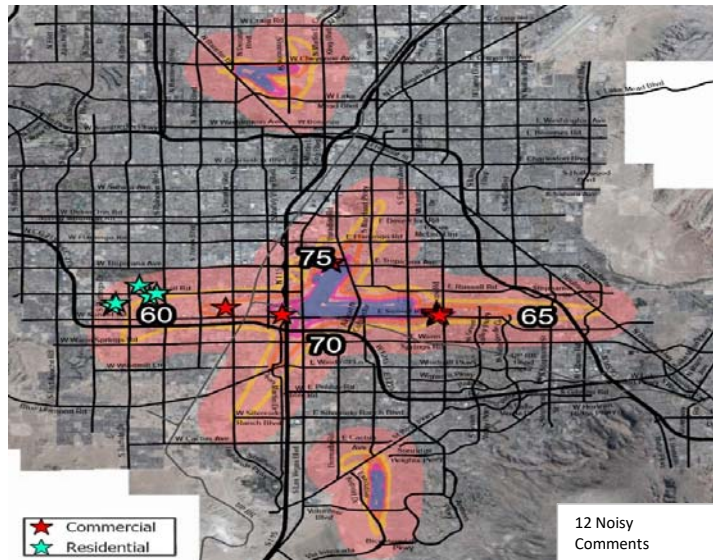


Exhibit 15: Noisy Comments - LAS Detail - December 2019

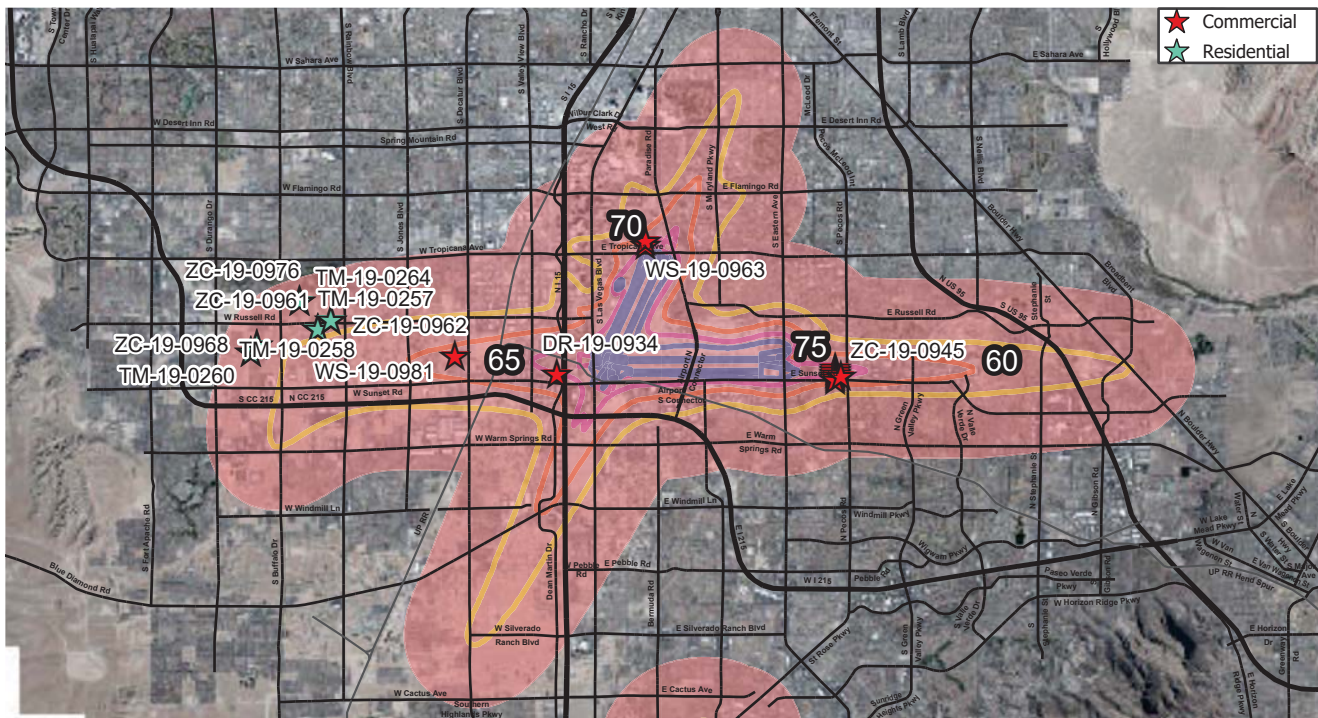


Exhibit 16: Noisy Comments - HND Detail - December 2019

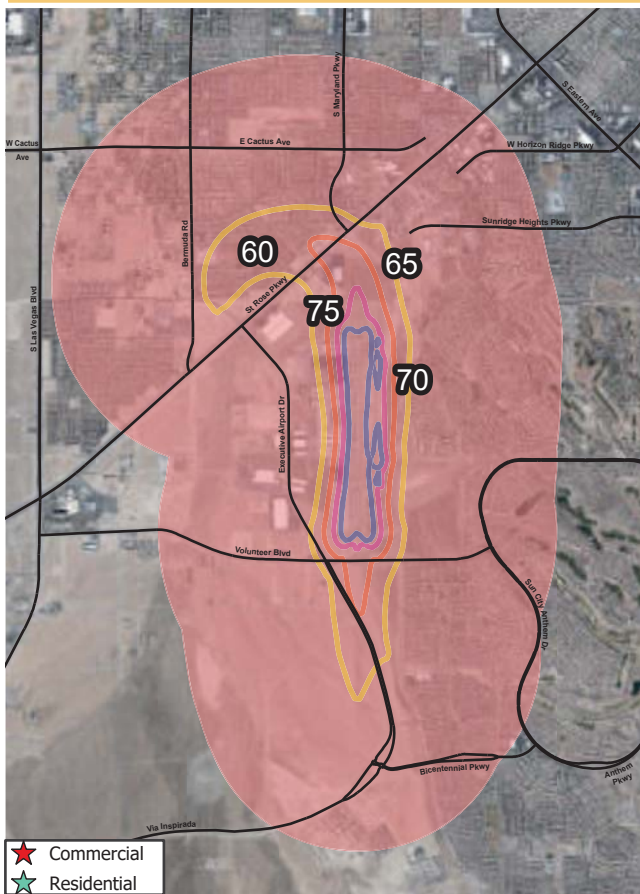


Exhibit 17: Noisy Comments - VGT Detail - December 2019

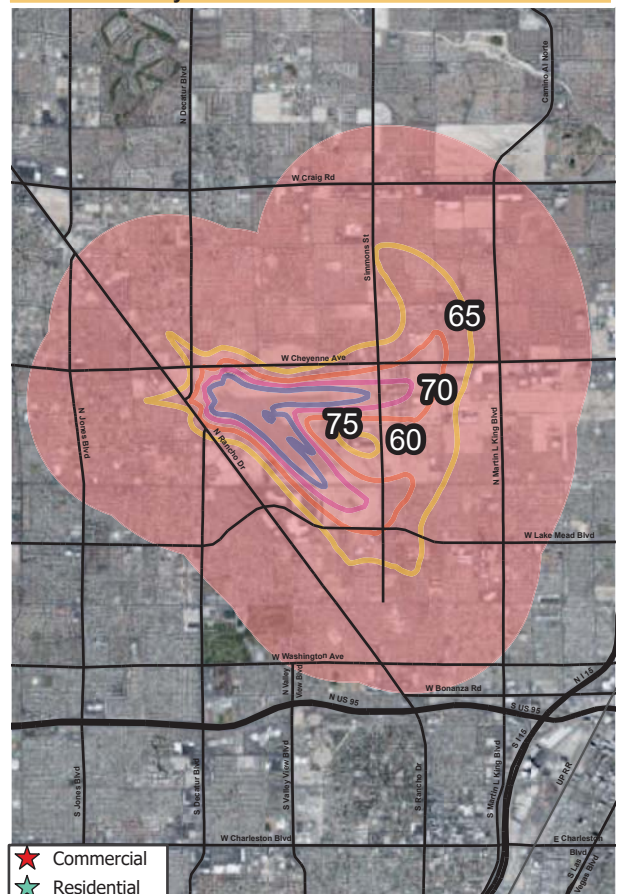


Exhibit 1: Noise Complaint Calls by Community* - Annual 2019

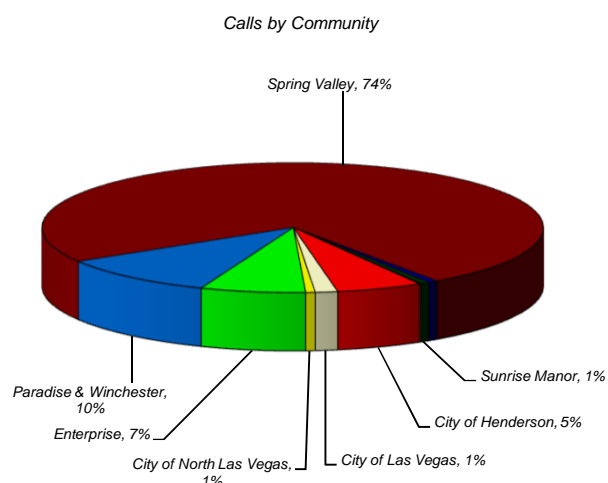
Community	No. of Calls in 2019	No. of Callers in 2019	No. of Calls in 2018	No. of Calls in 2017
City of Boulder City	54	35	2	50
City of Henderson	14	9	26	50
City of Las Vegas	6	6	8	7
City of North Las Vegas	66	20	53	50
Enterprise	101	54	199	188
Lone Mountain	726	23	447	223
Paradise & Winchester	6	6	872	2
Summerlin South	6	4	8	8
Sunrise Manor	1	1	5	2
Whitney			1	1
Location unknown				
Overall Total	980	158	1664	594

Difference between 2019 and 2018 Total Calls: -41%

Difference between 2019 and 2017 Total Calls: 65%

Average Number of Calls per Caller: 6.2

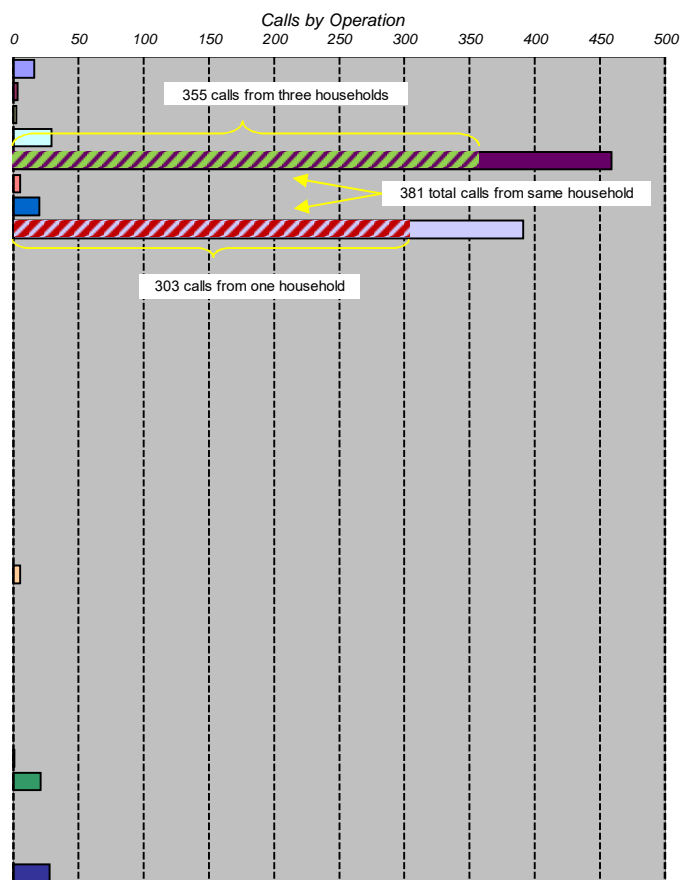
Most calls received from one household: 381



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

Exhibit 2: Noise Complaint Calls by Type of Operation - Annual 2019

Operation	No. of Calls in 2019	Percent of Overall Total	No. of Calls in 2018	No. of Calls in 2017
LAS 01R/L Arrivals	16	1.6%	15	7
LAS 08R/L Arrivals	3	0.3%	4	2
LAS 19R/L Arrivals	2	0.2%	2	14
LAS 26R/L Arrivals	29	3.0%	23	14
LAS 01R/L Departures	459	46.8%	271	268
LAS 08R/L Departures	5	0.5%	18	24
LAS 19R/L Departures	20	2.0%	6	8
LAS 26R/L Departures	391	39.9%	1,258	164
LAS Run-ups			1	2
LAS GA				
LAS Other				
LAS Total	925	94.4%	1,598	503
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	5	0.5%	6	19
VGT Other				
VGT Total	5	0.5%	6	19
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups	1	0.1%		
HND GA	21	2.1%	28	25
HND Other				
HND Total	22	2.2%	28	25
Helicopters**	28	2.9%	32	47
Overall Total	980	100%	1,664	594



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

Exhibit 3: Aircraft Noise Complaints by Community - Jan-Dec 2019

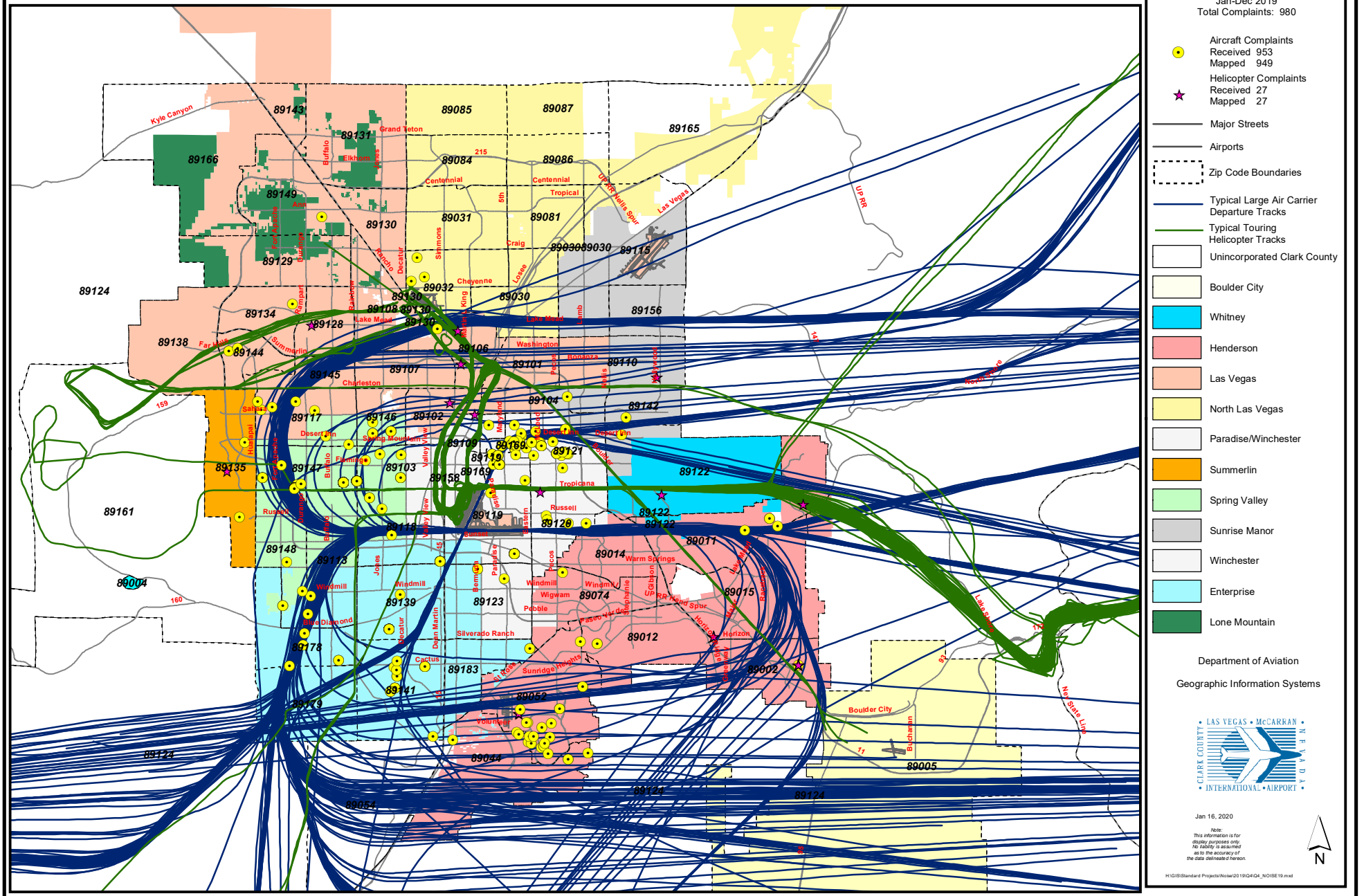
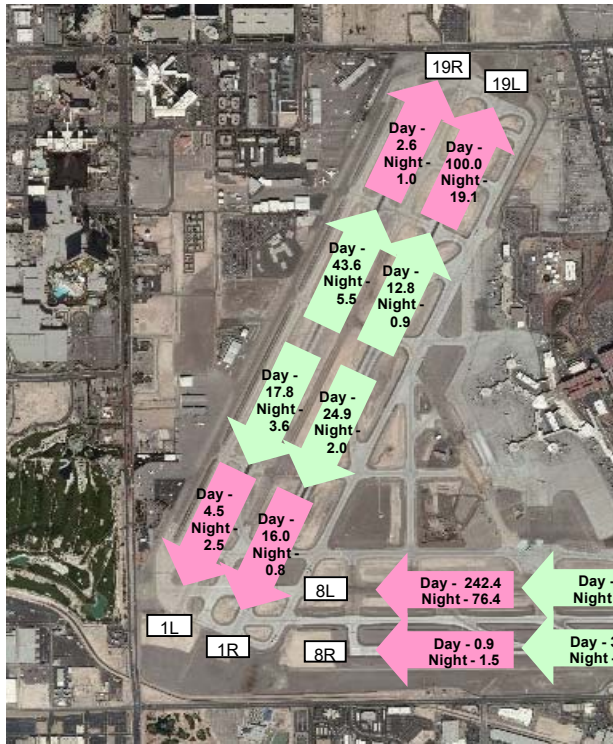


Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - Annual 2019



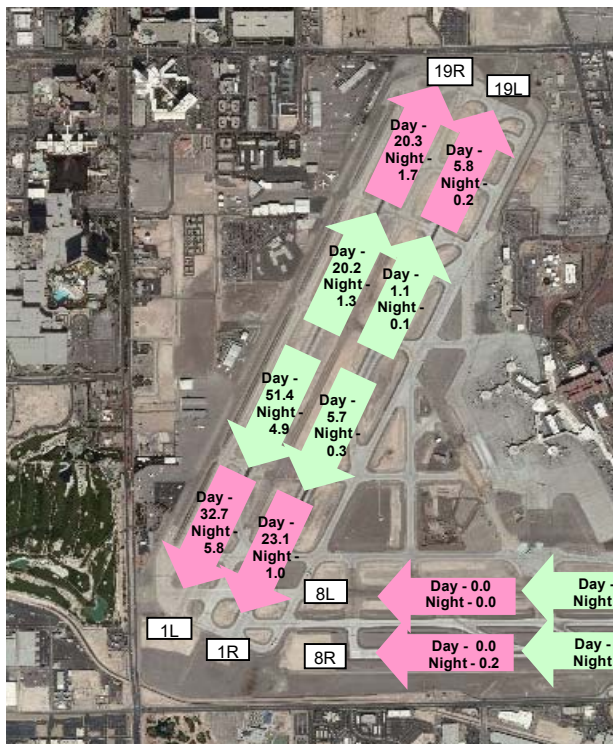
Year	2019		2018		2017	
Daytime Departures	413	80%	408	81%	409	82%
Nighttime Departures	103	20%	94	19%	88	18%
Total Departures	516	100%	502	100%	497	100%

Daytime Arrivals	435	86%	428	85%	428	86%
Nighttime Arrivals	74	14%	74	15%	70	14%
Total Arrivals	509	100%	502	100%	498	100%

Growth	Overall	Daytime	Nighttime
Depts. 2019 vs 2018	3%	1%	9%
Depts. 2019 vs 2017	4%	1%	16%
Arrivals 2019 vs 2018	1%	2%	-1%
Arrivals 2019 vs 2017	2%	2%	6%

* 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** - Annual 2019



Year	2019		2018		2017	
Daytime Departures	98	91%	96	90%	91	90%
Nighttime Departures	10	9%	11	10%	10	10%
Total Departures	108	100%	107	100%	101	100%

Daytime Arrivals	99	93%	95	93%	88	93%
Nighttime Arrivals	7	7%	7	7%	7	7%
Total Arrivals	106	100%	103	100%	95	100%

Growth	Overall	Daytime	Nighttime
Depts. 2019 vs 2018	1%	2%	-7%
Depts. 2019 vs 2017	7%	8%	-2%
Arrivals 2019 vs 2018	3%	3%	0%
Arrivals 2019 vs 2017	11%	12%	6%

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

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - Annual 2019

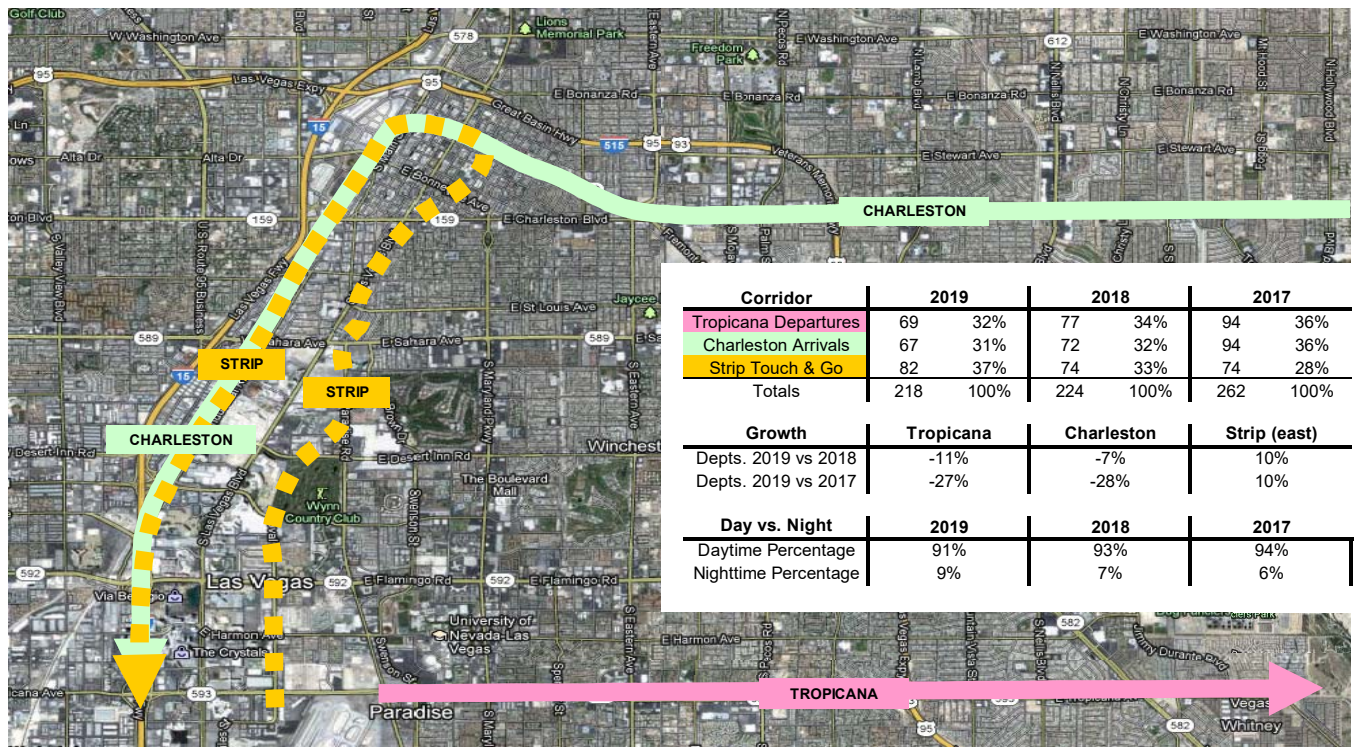
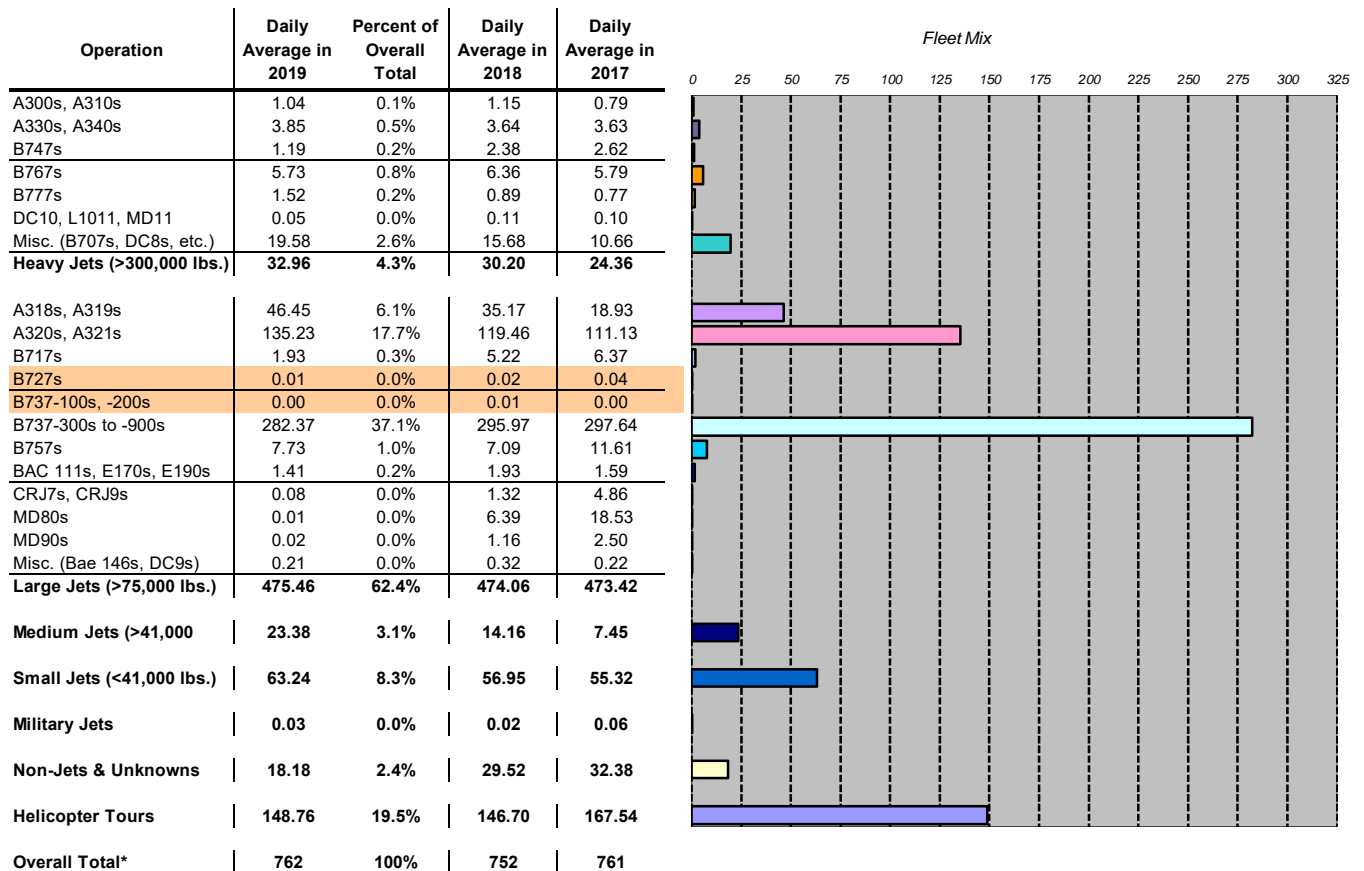


Exhibit 7: LAS Aircraft Arrival Fleet Mix - Annual 2019**



** Overall Total: Note that operation type and runway use counts are estimated by Harris Corp. EnvironmentalVue Noise and Monitoring Operations 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* - Annual 2019 to 2017

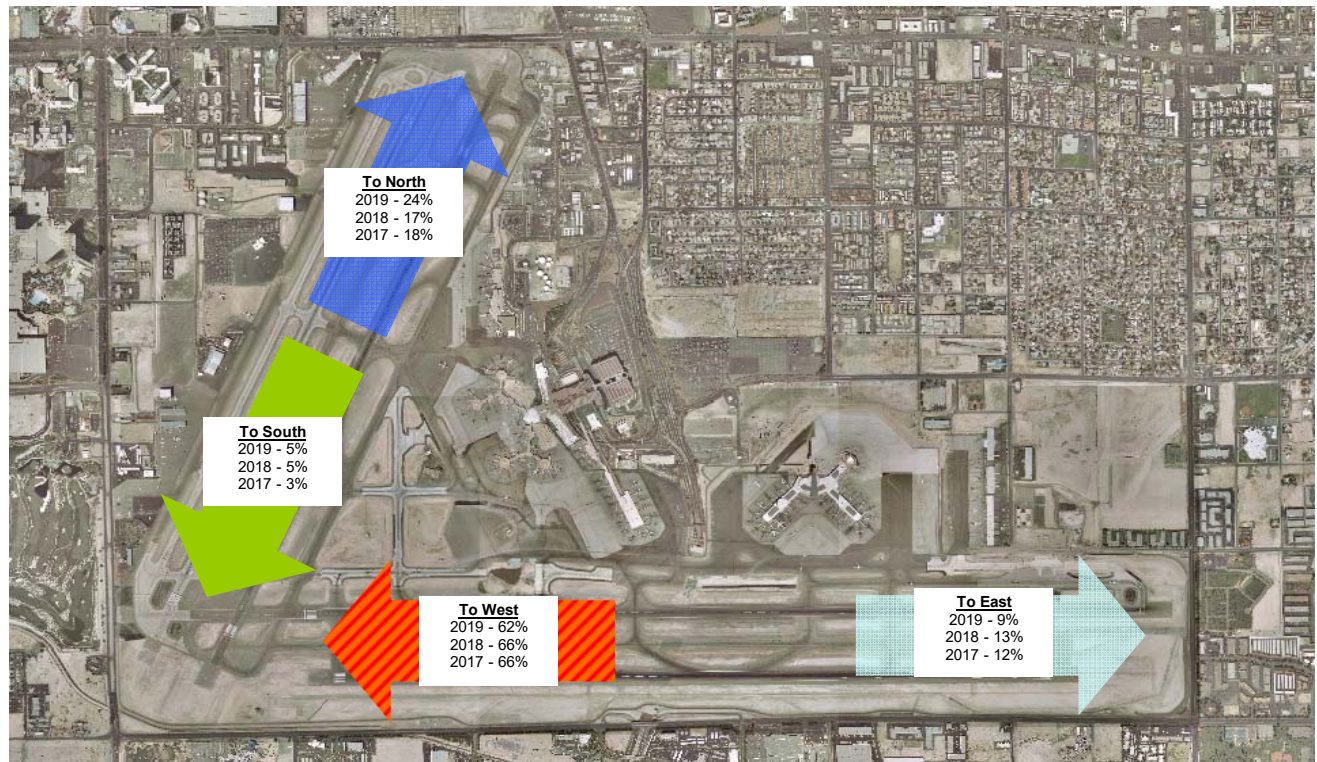
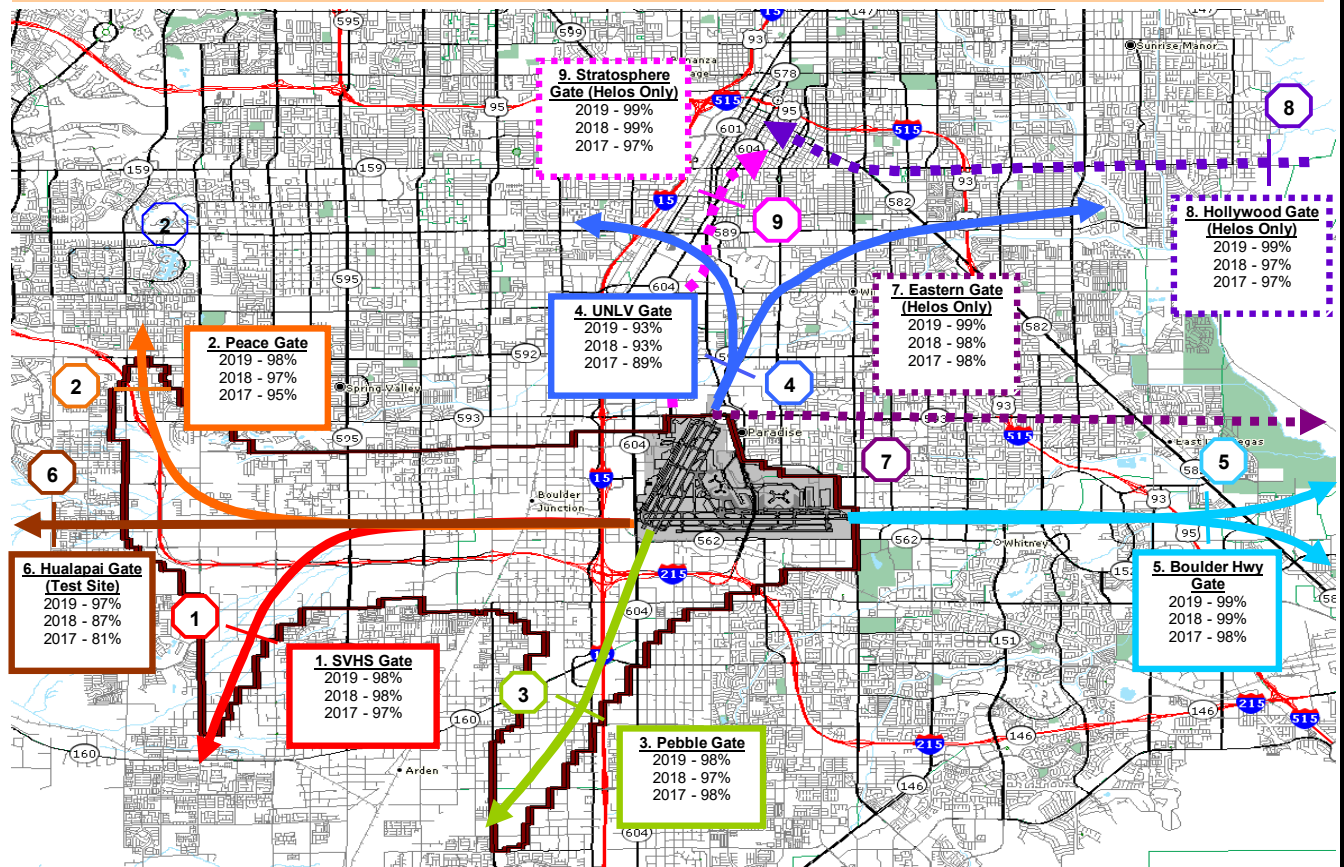


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - Annual 2019



* Aircraft types: All aircraft with a maximum gross takeoff 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 10: Land Use Application Reviews & Comments - 2019

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
No. of Land Use Applications Reviewed	1,753	542	1,065	235	3595
No. of Applications where CCDOA Issued a Comment	157	43	10	9	219
Percent of Applications where Comment Issued	9%	8%	1%	4%	6%

Exhibit 11: Land Use Application Comments by Airport Concern - 2019

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Deed Restrictions	4	0	0	0	4
Height-Penetrates Part 77 100:1 Surfaces >200'	63	23	7	1	94
Height-Penetrates Part 77 PATH-C Surfaces*	7	0	0	0	7
Heliport/Helipad	0	0	0	0	0
Noisy-Commercial within AEOD**	40	1	0	1	42
Noisy-Residential within the AEOD**	12	0	0	0	12
Noisy-Residential Just Outside the AEOD**	67	26	3	7	103
Total***	193	50	10	9	262

* Primary, Approach, Transition, Horizontal, Conical as defined by Federal Aviation Regulation (FAR) Part 77.

**AEOD-Airport Environs Overlay District (defined below).

***Comment Concern totals will not always match Comment Applications total. Some applications are issued more than one type of CCDOA comment.

Exhibit 12: Dwelling Units per Commented Application* - 2019

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Within the AEOD	1,410	0	0	0	1410
Just Outside the AEOD	9,299	5,464	323	161	15,247

*Due to high variability in many land use proposals, dwelling units proposed may not reflect actual number of units built. In addition, some projects will require more than one type of application, resulting in the project total counted more than once.

Exhibit 13: Land Use Applications Denied and/or Opposed - 2019

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	Overall Total
Recommend Denial	5	1	0	0	6
Opposed at Hearings	4*	0	0	0	0

*One application attended hearing, did not present, item withdrawn at the hearing.

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - 2019

AEOD - Airport Environs Overlay Districts - Noise Contours
Clark County Code (CCC) 30.48.010. The AEOD is established to:

1. Provide for a range of uses compatible with airport hazard and noise exposure areas.
2. Prohibit the development of incompatible uses that are detrimental to the general health, safety, and welfare.
3. Require noise attenuated construction, as indicated by Table 30.48-AE, in accordance with the noise attenuation construction standards of Chapter 22.22 of the CCC, within these airport environs. The regulations of the AEOD shall supersede the regulations of the underlying district if there is a conflict.
4. Comply with the Federal Aviation Administration regulations.

2008-Most recent update to the AEOD in CCC, updated the AEOD for McCarran (LAS), and added an AEOD to the North Las Vegas Airport (VGT) and the Henderson Executive Airport (HND).

2011-AEOD adopted by the cities of North Las Vegas and Henderson.

The AEOD has not been formally adopted by the City of Las Vegas. Only a small, already developed portion of the VGT AEOD lies within the incorporated City of Las Vegas boundaries.

Salmon color indicates a 1 mile zone outside the AEOD.

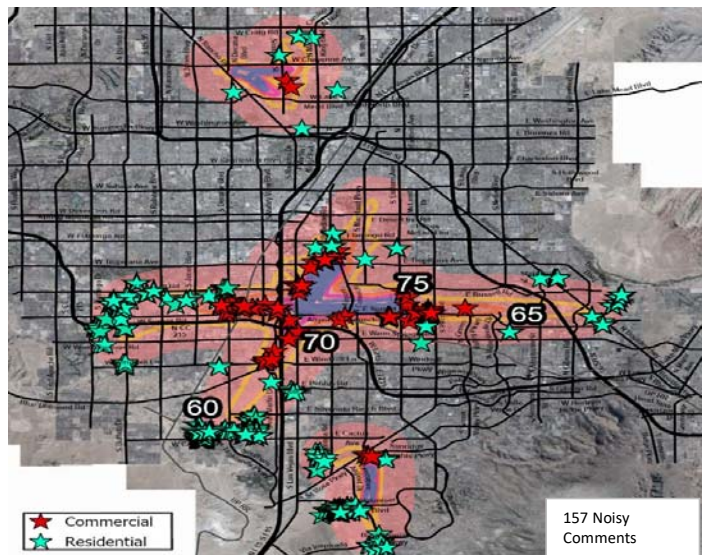


Exhibit 18: Total Calls/Callers by Month - 2017 through 2019

Year	January	February	March	April	May	June	July	August	September	October	November	December	January through December Total	Average No. of Calls per Caller
2019 Number of Calls	74	61	107	99	109	70	65	35	36	105	90	129	980	6.6
2019 Number of Callers	11	11	28	34	33	12	9	6	17	22	14	35	149	
2018 Number of Calls	47	35	68	28	45	55	77	790	202	164	86	67	1,664	9.8
2018 Number of Callers	27	19	39	12	19	6	17	9	15	52	34	16	170	
2017 Number of Calls	58	62	65	46	62	26	24	38	77	85	24	27	594	3.5
2017 Number of Callers	26	23	30	28	31	9	13	20	39	32	17	14	169	

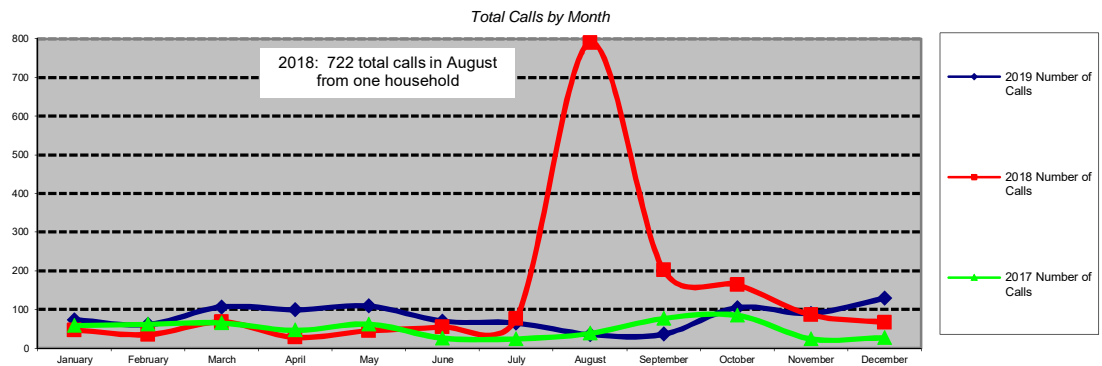


Exhibit 19: Total Monthly Calls by Time of Day - Annual 2019

Time Complaint Received	January	February	March	April	May	June	July	August	September	October	November	December	January through December Total	Percent
Day Hours (7:00 a.m. to 9:59 p.m.)	51	40	76	63	73	37	31	20	33	64	69	92	649	66.2%
Night Hours (10:00 p.m. to 6:59 a.m.)	23	21	31	36	36	33	34	15	3	41	21	37	331	33.8%
Total	74	61	107	99	109	70	65	35	36	105	90	129	980	100.0%

Exhibit 20: Total Monthly Calls by Airport/Operation - Annual 2019

Airport	January	February	March	April	May	June	July	August	September	October	November	December	January through December Total	Percent
McCarran International	69	57	103	91	101	66	59	33	30	101	89	126	925	94.4%
North Las Vegas	0	2	0	0	0	0	1	0	0	1	0	1	5	0.5%
Henderson Executive	1	1	1	2	6	2	3	1	2	2	0	1	22	2.2%
Helicopter	4	1	3	6	2	2	2	1	4	1	1	1	28	2.9%
Total	74	61	107	99	109	70	65	35	36	105	90	129	980	100.0%

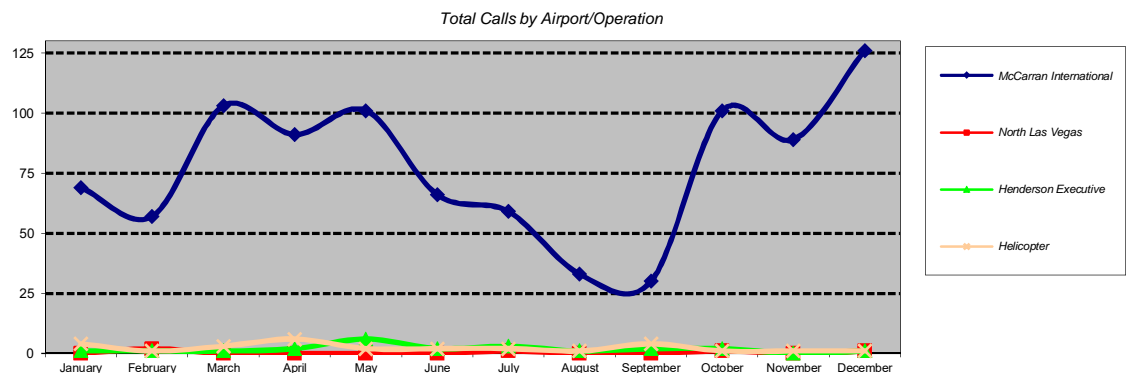


Exhibit 21: Total Monthly Calls by Community - Annual 2019

Community	January	February	March	April	May	June	July	August	September	October	November	December	January through December Total	Percnt
City of Boulder City	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
City of Henderson	4	3	3	9	9	8	5	1	5	3	1	3	54	5.5%
City of Las Vegas	0	0	1	4	2	1	0	0	1	2	0	3	14	1.4%
City of North Las Vegas	0	2	1	0	0	0	1	0	0	1	0	1	6	0.6%
Enterprise	0	10	12	11	10	1	0	3	11	3	1	4	66	6.7%
Lone Mountain	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Paradise & Winchester	6	0	7	13	13	1	1	0	5	14	30	11	101	10.3%
Spring Valley	62	46	81	62	74	59	58	30	13	82	58	101	726	74.1%
Summerlin	2	0	0	0	1	0	0	0	0	0	0	3	6	0.6%
Sunrise Manor	0	0	1	0	0	0	0	1	1	0	0	3	6	0.6%
Whitney	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1%
Location unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Overall Total	74	61	107	99	109	70	65	35	36	105	90	129	980	100%

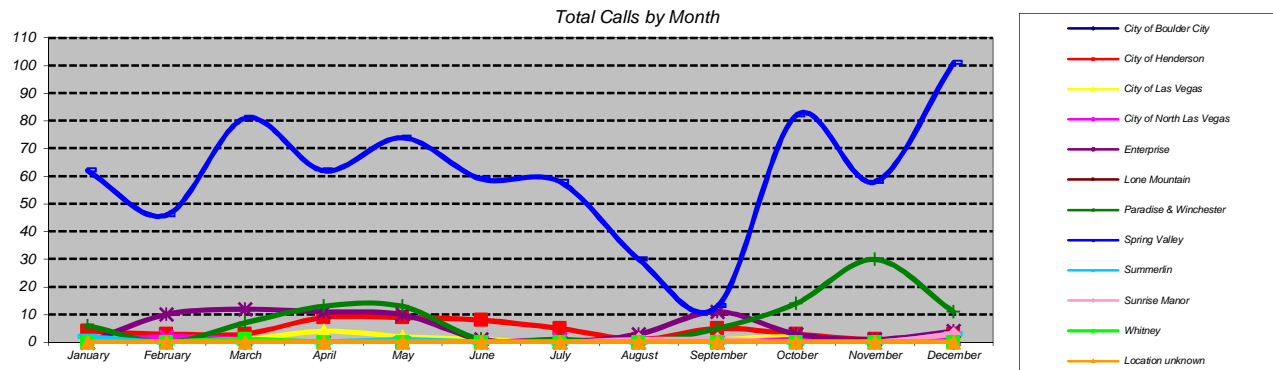


Exhibit 22: Total Monthly Calls by LAS Operation - Annual 2019

LAS Operations	January	February	March	April	May	June	July	August	September	October	November	December	January through December Total	Percnt
LAS 01R/L Arrivals	1	0	2	5	3	1	0	0	0	1	1	2	16	1.7%
LAS 08R/L Arrivals	0	0	0	0	0	0	0	3	0	0	0	0	3	0.3%
LAS 19R/L Arrivals	1	1	0	0	0	0	0	0	0	0	0	0	2	0.2%
LAS 26R/L Arrivals	0	5	2	2	6	0	1	0	10	1	0	2	29	3.1%
LAS 01R/L Departures	19	15	47	43	44	17	4	0	17	88	53	112	459	49.6%
LAS 08R/L Departures	0	0	1	0	0	3	0	0	1	0	0	0	5	0.5%
LAS 19R/L Departures	1	5	3	4	1	0	0	0	2	2	0	2	20	2.2%
LAS 26R/L Departures	47	31	48	37	47	45	54	30	0	9	35	8	391	42.3%
LAS Run-ups	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
LAS GA	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
LAS Canyon	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
LAS Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
LAS Total	69	57	103	91	101	66	59	33	30	101	89	126	925	100.0%

