

MEMORANDUM

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Director

DEPARTMENT OF AVIATION

TO: DISTRIBUTION Digitally signed by George C. Sims

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

SUBJECT: JULY THROUGH SEPTEMBER 2021 NOISE COMPLAINT AND LAND USE REVIEW REPORTS

DATE: OCTOBER 28, 2021

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint and Land Use Review Reports for July through September 2021. Please note the following airport abbreviations: **McCarran International Airport (LAS), North Las Vegas Airport (VGT), and Henderson Executive Airport (HND).**

The following reports describe noise complaints and operational data regarding helicopter and fixed-wing aircraft operations at LAS, VGT, and HND. Aircraft noise complaints are received either through the CCDOA's Noise Hotline (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.

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

Monthly Noise Complaint Summaries

July 2021: 88 total complaints - a 1,157% increase from 2020 and a 35% decrease from 2019. On average, each caller (or household) issued 4.0 calls. The most calls received from one household totaled 41.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Enterprise** community issued 66 calls (75%). This community is typically impacted by aircraft departing to the south (from Runway 19L and Runway 19R).

Minority (between 10% and 50%): The **City of Henderson** community issued 11 calls (13%). This community is typically impacted by aircraft departing to the east (from Runway 08R and Runway 08L), and helicopter tour operations operating from HND.

Repeat Caller Impact: One household issued 47% of the total calls.

Calls by Operation - (Exhibit 2)

LAS: 99% of the total calls were due to **LAS** fixed-wing operations.
▪ 75% were due to departures to the south from Runways 19L and 19R (62% from one household).

VGT: 0% of the total calls were due to **VGT** fixed-wing operations.

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

Helos: 0% of the total calls were due to **helicopter** operations.

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

Overall: 435 daily *departures* – a 50% increase from 2020 and 16% decrease from 2019.
▪ 54% of departures were to the west, 36% east, 6% north, and 3% south.
425 daily *arrivals* – a 46% increase from 2020 and 18% decrease from 2019.
▪ 57% of arrivals were from the east, 25% north, 14% west, and 4% south.

Daytime: 335 daily *departures* – a 32% increase from 2020 and 17 decrease from 2019.
▪ 49% of departures were to the west, 44% east, 3% north, and 3% south.
343 daily *arrivals* – a 27% increase from 2020 and a 20% decrease from 2019.
▪ 52% of arrivals were from the east, 28% north, 17% west, and 2% south.

Nighttime: 99 daily *departures* – a 172% increase from 2020 and 9% decrease from 2019.
▪ 73% of departures were to the west, 17% north, 10% east, and 1% south.
83 daily *arrivals* – a 290% increase from 2020 and an 8% decrease from 2019.
▪ 75% of arrivals were from the east, 12% south, 10% north, and 3% west.

Daytime vs. Nighttime: Approximately 77% of all *departures* and 81% of all *arrivals* occurred during the daytime hours.

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

Overall: 134 daily *departures* – a 72% increase from 2020 and 43% increase from 2019.
▪ 48% of departures were to the east, 41% south, 7% west, and 4% north.
131 daily *arrivals* – an 86% increase from 2020 and 45% increase from 2019.
▪ 58% of arrivals were from the north, 28% west, 10% east, and 4% south.

Daytime: 122 daily *departures* – an 87% increase from 2020 and 47% increase from 2019.
▪ 51% of departures were to the east, 39% south, 7% west, and 3% north.
125 daily *arrivals* – a 95% increase from 2020 and a 50% increase from 2019.
▪ 57% of arrivals were from the north, 30% west, 10% east, and 3% south.

Nighttime: 12 daily *departures* – a 5% decrease from 2020 and 11% increase from 2019.
▪ 61% of departures were to the south, 16% north, 12% east, and 11% west.
7 daily *arrivals* – no change from 2020 and a 12% decrease from 2019.
▪ 63% of arrivals were from the north, 22% south, 8% east, and 6% west.

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

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

Tropicana: 49 daily *departures* - a 286% increase from 2020 and 39% decrease from 2019.

Charleston: 47 daily *arrivals* - a 265% increase from 2020 and 41% decrease from 2019.

Strip: 113 daily *touch and go's* - a 159% increase from 2020 and 27% increase from 2019.

Daytime vs. Nighttime: Approximately 71% of all helicopter tour operations occurred during the daytime hours.

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

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

Large: **Large** air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 57% of the daily traffic.

Medium: **Medium** turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 4% of the daily traffic.

Small: **Small** turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 10% of the daily traffic.

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

Non-Jet: **Piston-driven** aircraft and unassigned aircraft types accounted for 5% of the daily traffic.

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

Noisier Aircraft Types: The hush-kitted Boeing 727 aircraft and Boeing 737 (100 & 200 series) aircraft accounted for 0% of the daily traffic.

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

Primary: In 2021, 55% departed to the *west* (from LAS's primary departure runways). This figure was 76% in 2020 and 69% in 2019.

Secondary: In 2021, 3% departed to the *south* (from LAS's secondary departure runways). This figure was 7% in 2020 and 4% in 2019.

Alternate 1: In 2021, 6% departed to the *north* (from LAS's alternate departure runways). This figure was <1% in 2020 and 1% in 2019.

Alternate 2: In 2021, 36% departed to the *east* (from LAS's alternate departure runways). This figure was 17% in 2020 and 26% in 2019.

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

SVHS: In 2021, 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 left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 99% in 2020 and 99% in 2019.

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 2021, 97% 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 99% in 2020 and 97% in 2019.

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 2021, 90% 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 2020 and 99% in 2019. The drop in compliance tied to this gate is due to increased usage of the recently implemented GIDGT/RATPK departure procedure as part of the FAA's Metroplex project.

The Pebble "compliance gate" is located southeast of Blue Diamond Rd. and Decatur Blvd., approximately 4 miles due south by southwest of the extended runway centerline of Runways 19L and 19R. This gate was also established along an existing noise abatement flight track which requests pilots to proceed runway heading to 3 nautical miles from the Las Vegas VORTAC before turning - where large air carrier aircraft have historically been encouraged to operate. This noise abatement flight track avoids communities impacted by aircraft turning early along this corridor (like the Warm Spring Estates community) and aircraft turning late along this corridor (like the Southern Highlands community).

UNLV: In 2021, 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 100% in 2020 and 95% in 2019.

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 2021, 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 2020 and 99% in 2019.

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.).

Eastern: In 2021, 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 2020 and 99% in 2019.

The Eastern Ave. "compliance gate" is located at Tropicana Ave. and Eastern Ave, approximately 2 miles due west of the their initial departure route. This gate was also established along an existing noise abatement flight track which requests helicopter pilots to proceed along the centerline of Tropicana Ave. until 10 nautical miles from the Las Vegas VORTAC before turning. This noise abatement flight track avoids communities impacted by helicopters located north and south of the corridor.

Hollywood: In 2021, 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 2020 and 99% in 2019.

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 2021, 95% of the north-bound helicopters providing tours of the Las Vegas Strip were within 500 feet of the intersection of Oakey Boulevard & Las Vegas Boulevard, *northeast of the Stratosphere Tower*. This figure was 98% in 2020 and 99% in 2019.

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: 136 applications were reviewed (a 42% increase from 2020), with 14 applications (10%) issued at least one comment.

Henderson: 18 applications were reviewed (a 61% decrease from 2020), with 2 applications (11%) issued at least one comment.

Las Vegas: 43 applications were reviewed (a 16% increase from 2020), with 0 applications issued at least one comment.

North Las Vegas: 13 applications were reviewed (a 19% decrease from 2020), with 0 applications 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 1 comment 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: 742 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 4 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 0 comments were issued.

North Las Vegas: 0 comments were issued.

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

Henderson: CPR-2021008058, 191-03-711-003 - Residential proposed on deed restricted parcel, and noise concerns related to being located immediately across the street from HND airport and directly beneath/adjacent to preferred touch and go and general flight patterns. A CPR (concept plan review) does not have a meeting before the Planning Commission/City Council.

The information denoted in this monthly summary represents **typical** residential complaints, (with the exception of the number of complaints associated with departures to the south that turn west), flight activity, fleet mix, and gate compliance.

August 2021: 43 total complaints - a 438% increase from 2020 and a 23% increase from 2019. On average, each caller (or household) issued 3.9 calls. The most calls received from one household totaled 28.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Enterprise** community issued 36 calls (84%). (See July 2021 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 65% of the total calls.

Calls by Operation - (Exhibit 2)

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

- 84% were due to departures to the south from Runways 19L and 19R (78% from one household).

VGT: 0% of the total calls received were due to **VGT** fixed-wing operations.

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

Helis: 0% of the total calls received were due to **helicopter** operations.

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

Overall: 437 daily *departures* – a 38% increase from 2020 and 18% decrease from 2019.

- 70% of departures were to the west, 26% east, 3% south, and 1% north.

430 daily *arrivals* – a 35% increase from 2020 and 18% decrease from 2019.

- 68% of arrivals were from the east, 20% north, 11% west, and 1% south.

Daytime: 343 daily *departures* – a 23% increase from 2020 and 18% decrease from 2019.

- 65% of departures were to the west, 31% east, 3% south, and 1% north.

351 daily *arrivals* – a 20% increase from 2020 and a 21% decrease from 2019.

- 65% of arrivals were from the east, 22% north, and 12% west.

Nighttime: 94 daily *departures* – a 145% increase from 2020 and 14% decrease from 2019.
▪ 88% of departures were to the west, 9% east, and 3% north.
80 daily *arrivals* – a 211% increase from 2020 and a 1% decrease from 2019.
▪ 80% of arrivals were from the east, 13% north, 5% west, and 3% south.

Daytime vs. Nighttime: Approximately 79% of all *departures* and 82% of all *arrivals* occurred during the daytime hours.

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

Overall: 126 daily *departures* – a 63% increase from 2020 and 38% increase from 2019.
▪ 57% of departures were to the south, 32% east, 10% west, and 1% north.
122 daily *arrivals* – a 69% increase from 2020 and 35% increase from 2019.
▪ 65% of arrivals were from the north, 21% west, 14% east, and 1% south.

Daytime: 117 daily *departures* – a 75% increase from 2020 and 42% increase from 2019.
▪ 55% of departures were to the south, 34% east, 10% west, and 1% north.
117 daily *arrivals* – a 77% increase from 2020 and 43% increase from 2019.
▪ 64% of arrivals were from the north, 21% west, 14% east, and 1% south.

Nighttime: 9 daily *departures* – a 14% decrease from 2020 and 1% decrease from 2019.
▪ 77% of departures were to the south, 12% west, 8% east, and 3% north.
5 daily *arrivals* – a 25% decrease from 2020 and a 43% decrease from 2019.
▪ 81% of arrivals were from the north, 8% south, 7% east, and 5% west.

Daytime vs. Nighttime: Approximately 93% of all *departures* and 96% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 43 daily *departures* – a 157% increase from 2020 and a 46% decrease from 2019.

Charleston: 41 daily *arrivals* - a 157% increase from 2020 and an 47% decrease from 2019.

Strip: 100 daily *touch and go's* - a 58% increase from 2020 and an 8% increase from 2019.

Daytime vs. Nighttime: Approximately 77% of all helicopter tour operations occurred during the daytime hours.

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

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

Large: **Large** air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 60% of the daily traffic.

Medium: **Medium** turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 4% of the daily traffic.

Small: *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 10% of the daily traffic.

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

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

Helos: *Touring helicopters* accounted for 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 2021, 70% departed to the *west* (from LAS's primary departure runways). This figure was 85% in 2020 and 66% in 2019.

Secondary: In 2021, 3% departed to the *south* (from LAS's secondary departure runways). This figure was 6% in 2020 and 3% in 2019.

Alternate 1: In 2021, 1% departed to the *north* (from LAS's alternate departure runways). This figure was <1% in 2020 and 1% in 2019.

Alternate 2: In 2021, 26% departed to the *east* (from LAS's alternate departure runways). This figure was 9% in 2020 and 31% in 2019.

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

SVHS: In 2021, 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 left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 99% in 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the SVHS gate.)

Peace: In 2021, 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 2020 and 98% in 2020. (See July 2021 synopsis for specific location of the Peace gate.)

Pebble: In 2021, 95% of the large air carrier aircraft (excluding those destined to the Nevada National Security Site) that departed to the south from Runways 19L or 19R were within 0.3 NM of the intersection of *Pebble Road & Arville Street*. This figure was 95% in 2020 and 98% in 2019. (See July 2021 synopsis for specific location of the Pebble gate.)

UNLV: In 2021, 95% 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 2020 and 95% in 2019. (See July 2021 synopsis for specific location of the UNLV gate.)

Boulder: In 2021, 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 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Boulder Hwy. gate.)

Eastern: In 2021, 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 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Eastern gate.)

Hollywood: In 2021, 99% of the touring helicopters returning from areas east of the Las Vegas Valley were within 500 feet of the intersection of *Charleston Boulevard & Hollywood Boulevard*. This figure was 98% in 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2021, 96% 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 97% in 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 124 applications were reviewed (a 103% increase from 2020), with 14 applications (11%) issued at least one comment.

Henderson: 45 applications were reviewed (a 15% increase from 2020), with 7 applications (16%) issued at least one comment.

Las Vegas: 33 applications were reviewed (a 6% increase from 2020), with 0 applications issued at least one comment.

North Las Vegas: 20 applications were reviewed (a 9% decrease from 2020), with 1 application (5%) issued at least one comment.

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

Clark County: 16 comments were issued, with 6 comments issued for “noise” concerns.

Henderson: 9 comments were issued, with 4 comment issued for “noise” concerns.

Las Vegas: 0 comments were issued.

North Las Vegas: 1 comment was issued, with the 1 comment issued for “noise” concerns.

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

Clark County: 204 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 877 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 0 comments were issued.

North Las Vegas: 70 dwelling units were proposed in the commented application, just outside the AEOD.

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

None

The information denoted in this monthly summary represents **typical** residential complaints, (with the exception of the number of complaints associated with departures to the south that turn west), flight activity, fleet mix, and gate compliance.

September 2021: 68 total complaints – a 74% increase from 2020 and an 89% increase from 2019. On average, each caller (or household) issued 3.2 calls. The most calls received from one household totaled 15.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Enterprise** community issued 48 calls (71%). (See July 2021 synopsis of typical aircraft overflight impacts on this community).

Minority (between 10% and 50%): The **Spring Valley** community issued 8 calls (12%). 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).

Repeat Caller Impact: One household issued 22% of the total calls.

Calls by Operation - (Exhibit 2)

LAS: 90% of the total calls were due to **LAS** fixed-wing operations.
▪ 63% were due to departures to the north from Runways 01L and 01R (63% from two households).

VGT: 0% of the total calls received were due to **VGT** fixed-wing operations.

HND: 7% 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** - (Exhibits 4)

Overall: 468 daily *departures* – a 67% increase from 2020 and 13% decrease from 2019.
▪ 57% of departures were to the west, 24% north, 16% east, and 3% south.
463 daily *arrivals* – a 66% increase from 2020 and 12% decrease from 2019.
▪ 73% of arrivals were from the east, 11% south, 11% north, and 5% west.

Daytime: 379 daily *departures* – a 50% increase from 2020 and 14% decrease from 2019.
▪ 50% of departures were to the west, 27% north, 18% east, and 4% south.
399 daily *arrivals* – a 51% increase from 2020 and 13% decrease from 2019.
▪ 71% of arrivals were from the east, 12% south, 12% north, and 6% west.

Nighttime: 89 daily *departures* – a 216% increase from 2020 and 7% decrease from 2019.
▪ 84% of departures were to the west, 12% north, 3% east, and 1% south.
64 daily *arrivals* – a 336% increase from 2020 and 6% decrease from 2019.
▪ 90% of arrivals were from the east, 6% north, and 3% south.

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: 151 daily *departures* – an 81% increase from 2020 and a 30% increase from 2019.
▪ 48% of departures were to the south, 29% north, 15% east, and 7% west.
147 daily *arrivals* – an 86% increase from 2020 and a 31% increase from 2019.
▪ 49% of arrivals were from the north, 23% east, 20% south, and 8% west.

Daytime: 140 daily *departures* – a 95% increase from 2020 and 31% increase from 2019.
▪ 45% of departures were to the south, 31% north, 16% east, and 7% west.
140 daily *arrivals* – a 94% increase from 2020 and a 33% increase from 2019.
▪ 47% of arrivals were from the north, 24% east, 21% south, and 8% west.

Nighttime: 12 daily *departures* – a 2% decrease from 2020 and 16% increase from 2019.
▪ 79% of departures were to the south, 13% north, 5% west, and 3% east.
7 daily *arrivals* – no change from 2020 and 3% decrease from 2019.
▪ 90% of arrivals were from the north, 6% south, and 4% east.

Daytime vs. Nighttime: Approximately 92% of all *departures* and 95% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 45 daily *departures* – a 147% increase from 2020 and a 42% decrease from 2019.

Charleston: 44 daily *arrivals* - a 150% increase from 2020 and a 43% decrease from 2019.

Strip: 99 daily *touch and go's* - a 51% increase from 2020 and a 13% increase from 2019.

Daytime vs. Nighttime: Approximately 85% of all helicopter tour operations occurred during the daytime hours.

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

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

Large: **Large** air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 60% of the daily traffic.

Medium: **Medium** turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 4% of the daily traffic.

Small: **Small** turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 11% of the daily traffic.

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

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

Helos: *Touring helicopters* accounted for 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 2021, 57% departed to the *west* (from LAS's primary departure runways). This figure was 74% in 2020 and 75% in 2019.

Secondary: In 2021, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 4% in 2020 and 7% in 2019.

Alternate 1: In 2021, 24% departed to the *north* (from LAS's alternate departure runways). This figure was 13% in 2020 and 11% in 2019.

Alternate 2: In 2021, 16% departed to the *east* (from LAS's alternate departure runways). This figure was 9% in 2020 and 8% in 2019.

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

SVHS: In 2021, 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 left-hand turn were within 0.3 NM of *Sierra Vista High School* (SVHS). This figure was 99% in 2020 and 98% in 2019. (See July 2021 synopsis for specific location of the SVHS gate.)

Peace: In 2021, 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 2020 and 98% in 2019. (See July 2021 synopsis for specific location of the Peace gate.)

Pebble: In 2021, 95% 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 91% in 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Pebble gate.)

UNLV: In 2021, 96% 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 92% in 2020 and 93% in 2019. (See July 2021 synopsis for specific location of the UNLV gate.)

Boulder: In 2021, 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 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Boulder Hwy. gate.)

Eastern: In 2021, 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 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Eastern gate.)

Hollywood: In 2021, 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 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Hollywood gate.)

Stratosphere: In 2021, 100% 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 2020 and 99% in 2019. (See July 2021 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 138 applications were reviewed (a 59% increase from 2020), with 17 applications (12%) issued at least one comment.

Henderson: 57 applications were reviewed (an 84% increase from 2020), with 7 applications (12%) issued at least one comment.

Las Vegas: 42 applications were reviewed (an 8% increase from 2020), with 1 application (2%) issued at least one comment.

North Las Vegas: 6 applications were reviewed (a 14% decrease from 2020), with 1 application (17%) issued at least one comment.

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

Clark County: 20 comments were issued, with 14 comments issued for “noise” concerns.

Henderson: 7 comments were issued, with 5 comments issued for “noise” concerns.

Las Vegas: 1 comment was issued, with 1 comment issued “noise” concerns.

North Las Vegas: 1 comment was issued and it was issued for “noise” concerns.

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

Clark County: 646 dwelling units were proposed in the commented applications, within the AEOD. 553 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 166 dwelling units were proposed in the commented applications, within the AEOD. 577 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 10 dwelling units were proposed in the commented application, just outside the AEOD.

North Las Vegas: 0 dwelling units were proposed in the commented application.

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

None

The information denoted in this monthly summary represents **typical** residential complaints, (with the exception of the number of complaints associated with departures to the south that turn west), flight activity, fleet mix, and gate compliance.

Other Notable Issues

Helicopter Operator Users Meeting: On September 16, 2021, DOA staff members met virtually via video conferencing with FAA, and local helicopter tour operators to discuss noise complaints tied to helicopter operations, route compliance, operational growth, and a land use development project close to McCarran International Airport. Attendees also received information on the successful helicopter flights to and from the Las Vegas Motor Speedway for the annual NASCAR racing event that took place September 24, 25, and 26, 2021. All helicopters maintained a high rate of route compliance resulting in zero noise complaints tied to this route for the event.

Correspondence from Commissioner Naft: In a letter to the FAA's Deputy Regional Administrator for the Western-Pacific Region, County Commissioner Michael Naft conveyed on-going concerns from residents of the Western Trails community, associated with the FAA's implementation of the new GIDGT/RATPK departure procedure to the south, from Runway 19L and 19R. In the letter, the Commissioner reminds the FAA of the importance placed in the partnership between the FAA and the CCDOA, as well as maintaining complete transparency regarding mitigating any excessive use of the departure procedure beyond the scope expressed by the FAA's design team during their public workshops. Use of the new departure procedure continues to be closely monitored by the CCDOA to ensure the FAA's communicated use of this procedure is maintained.

Safety and Security Threats: Any threats to DOA staff or an aircraft in flight are taken seriously, and such threats will be forwarded to the appropriate law enforcement agencies.

GCS:jj

Attachments

Airport Noise Report

October 28, 2021

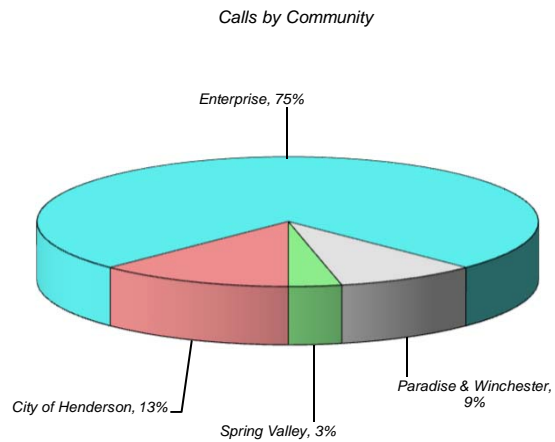
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Distribution:

Commissioner Kirkpatrick, Chair	Sean Roebuck
Commissioner Gibson, Vice-Chair	Bruce Daugherty
Commissioner Naft	Chris Jones
Commissioner Miller	Christine Crews
Commissioner McCurdy II	Tina Frias
Commissioner Segerblom	Jeff Jacquart
Commissioner Jones	Roben Armstrong
Yolanda King	Scott Kichline
Rosemary Vassiliadis	Anthony Perkins
James Chrisley	Susan Gersh
Joseph Piurkowski	Stephanie Garcia-Vause (COH)
Ralph Lepore	Andrew Powell (COH)
Jennifer Lopez	William Ruggiero (FAA TRACON)
Sandra Cikity	James Borget (FAA ATCT/TRACON)
Judy Villalta	Thomas Miller (Nellis AFB)
Ben Czyzewski	James Erbeck (CLV)
Karina Tarnowska	Paul Alukonis (FAA FSDO)
Donna Bergstrom	Sydney Lowe (University Libraries)
Curtis Hedgepeth	Lisa Butterfield (Reno-Tahoe Airport)
Blanca Vazquez	Andrea Christensen (Denver Airport)
Charlie Halterman (HND Tower)	Jennifer Lewis (Scottsdale Airport)
Richard Falcon (FAA FSDO)	Frank Iacovino (Mass Port Authority)
Bristol Ellington (COH)	Robert Butler (Papillon Helicopters)
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* - July 2021

Community	No. of Calls in 2021	No. of Callers in 2021	No. of Calls in 2020	No. of Calls in 2019
City of Boulder City	11	6	2	5
City of Henderson			1	
City of Las Vegas				1
City of North Las Vegas				
Enterprise	66	8	2	
Lone Mountain				
Paradise & Winchester	8	7	2	1
Spring Valley	3	2		58
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	88	23	7	65



Difference between 2021 and 2020 Total Calls: 1,157%

Difference between 2021 and 2019 Total Calls: 35%

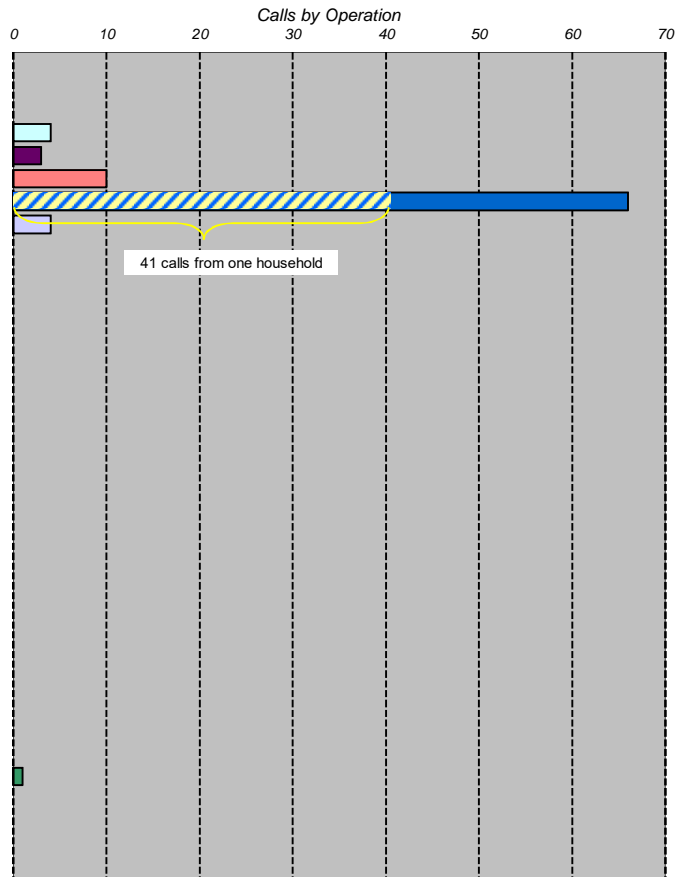
Average Number of Calls per Caller: 3.8

Most calls received from one household: 41

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

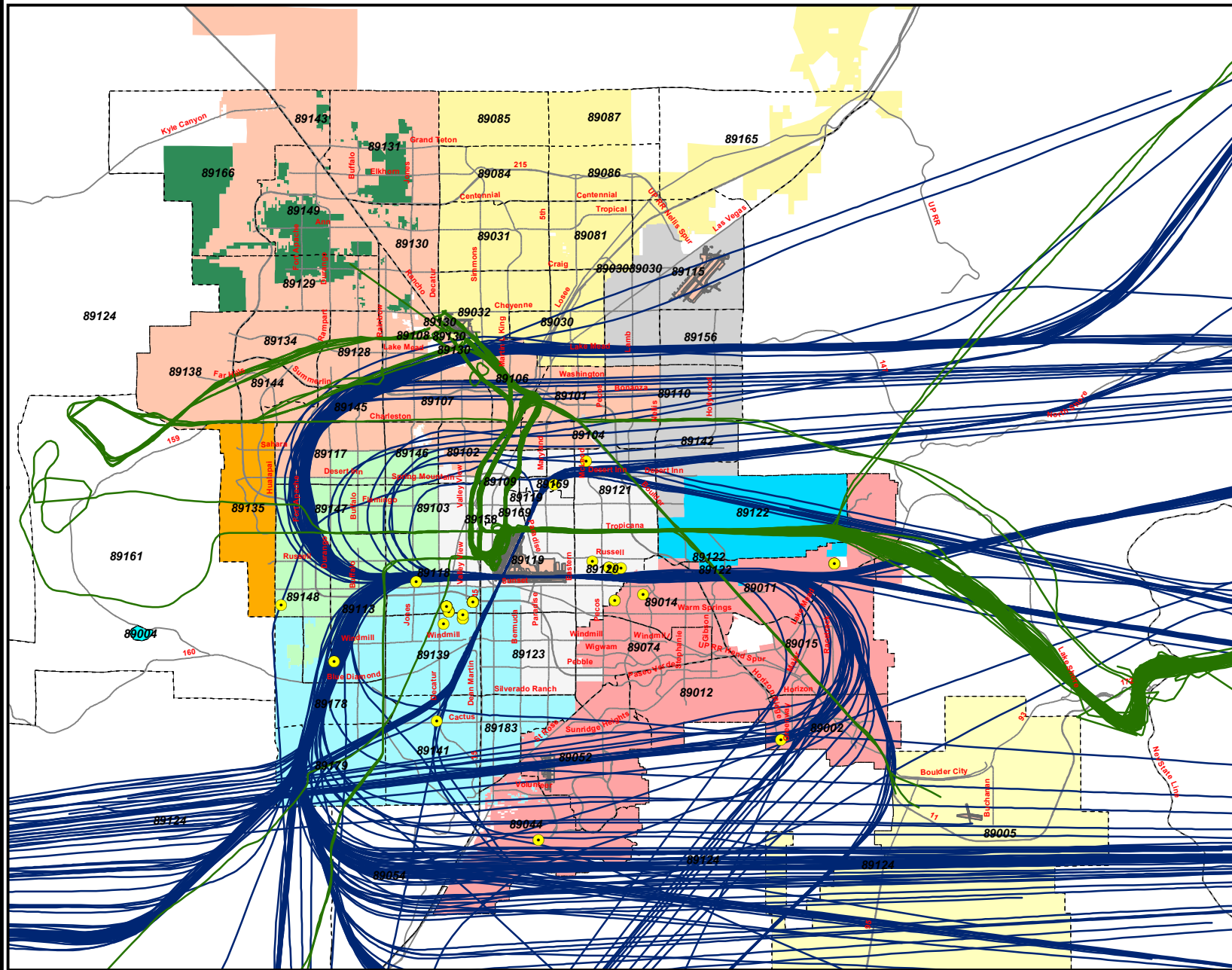
Exhibit 2: Noise Complaint Calls by Type of Operation - July 2021

Operation	No. of Calls in 2021	Percent of Overall Total	No. of Calls in 2020	No. of Calls in 2019
LAS 01R/L Arrivals				
LAS 08R/L Arrivals				
LAS 19R/L Arrivals				
LAS 26R/L Arrivals	4	4.5%	2	1
LAS 01R/L Departures	3	3.4%		4
LAS 08R/L Departures	10	11.4%		
LAS 19R/L Departures	66	75.0%	1	
LAS 26R/L Departures	4	4.5%		54
LAS Run-ups				
LAS GA			1	
LAS Other			1	
LAS Total	87	98.9%	5	59
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA				1
VGT Other				
VGT Total	0	0.0%	0	1
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	1.1%	1	2
HND Other				
HND Total	1	1.1%	1	2
Helicopters**			1	3
Overall Total	88	100%	7	65



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

Exhibit 3: Aircraft Noise Complaints by Community - July 2021



Legend

July 2021
Total Complaints: 88

- Aircraft Complaints Received 88 Mapped 88
- ★ Helicopter Complaints Received 0 Mapped 0
- 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

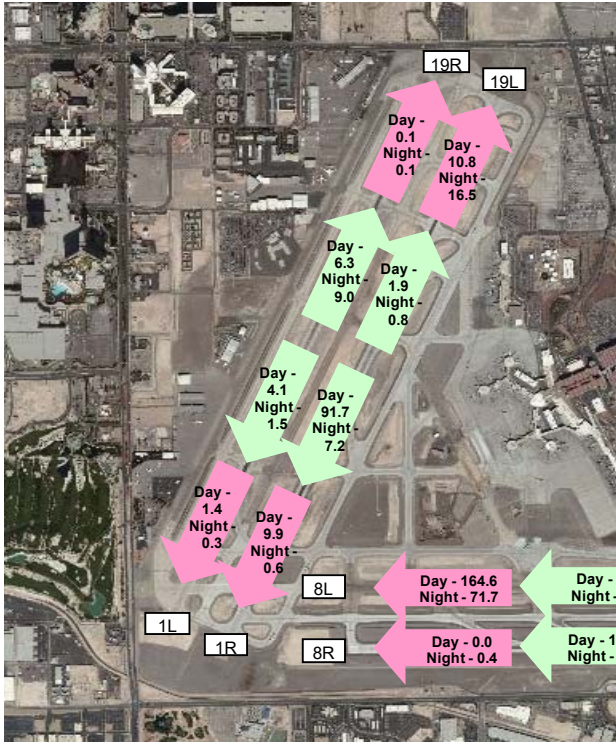
Department of Aviation
Geographic Information Systems

10/19/2021

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

H:\GIS\Standard Projects\Noise\2021\09\02_NOISE21.mxd

Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - July 2021



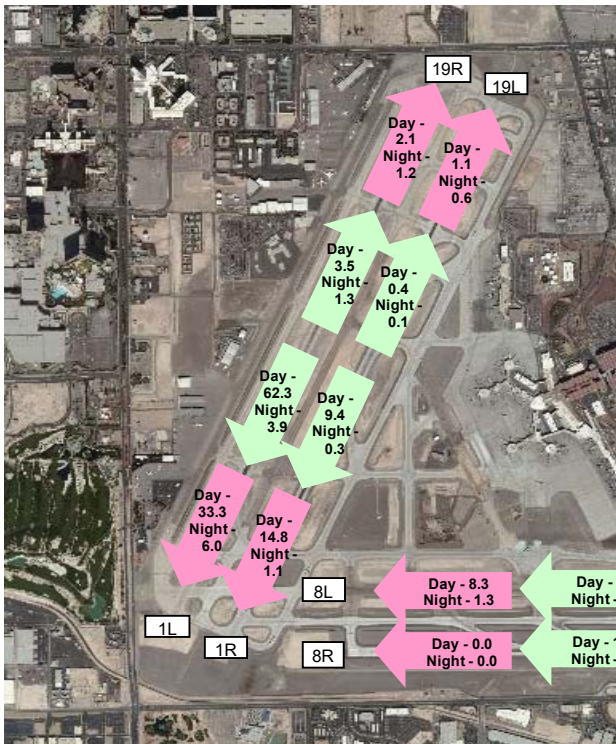
Year	2021		2020		2019	
Daytime Departures	335	77%	254	87%	405	79%
Nighttime Departures	99	23%	37	13%	110	21%
Total Departures	435	100%	291	100%	515	100%

Daytime Arrivals	343	81%	271	93%	428	83%
Nighttime Arrivals	83	19%	21	7%	90	17%
Total Arrivals	425	100%	292	100%	518	100%

Growth	Overall	Daytime	Nighttime
Depts. 2021 vs 2020	50%	32%	172%
Depts. 2021 vs 2019	-16%	-17%	-9%
Arrivals 2021 vs 2020	46%	27%	290%
Arrivals 2021 vs 2019	-18%	-20%	-8%

* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A340, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft** - July 2021



Year	2021		2020		2019	
Daytime Departures	122	91%	65	84%	83	89%
Nighttime Departures	12	9%	12	16%	10	11%
Total Departures	134	100%	77	100%	93	100%

Daytime Arrivals	125	95%	64	91%	83	92%
Nighttime Arrivals	7	5%	7	9%	7	8%
Total Arrivals	131	100%	71	100%	91	100%

Growth	Overall	Daytime	Nighttime
Depts. 2021 vs 2020	72%	87%	-5%
Depts. 2021 vs 2019	43%	47%	11%
Arrivals 2021 vs 2020	86%	95%	0%
Arrivals 2021 vs 2019	45%	50%	-12%

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

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - July 2021

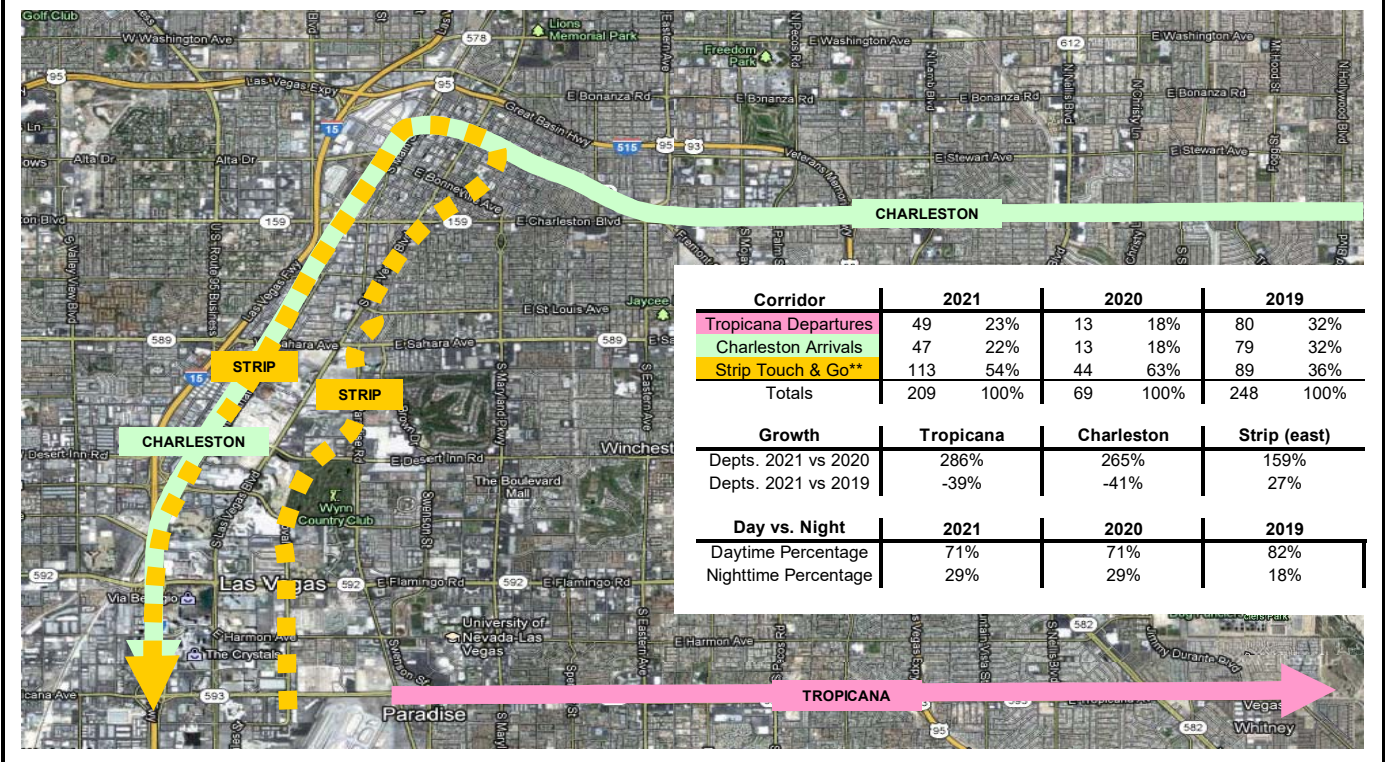
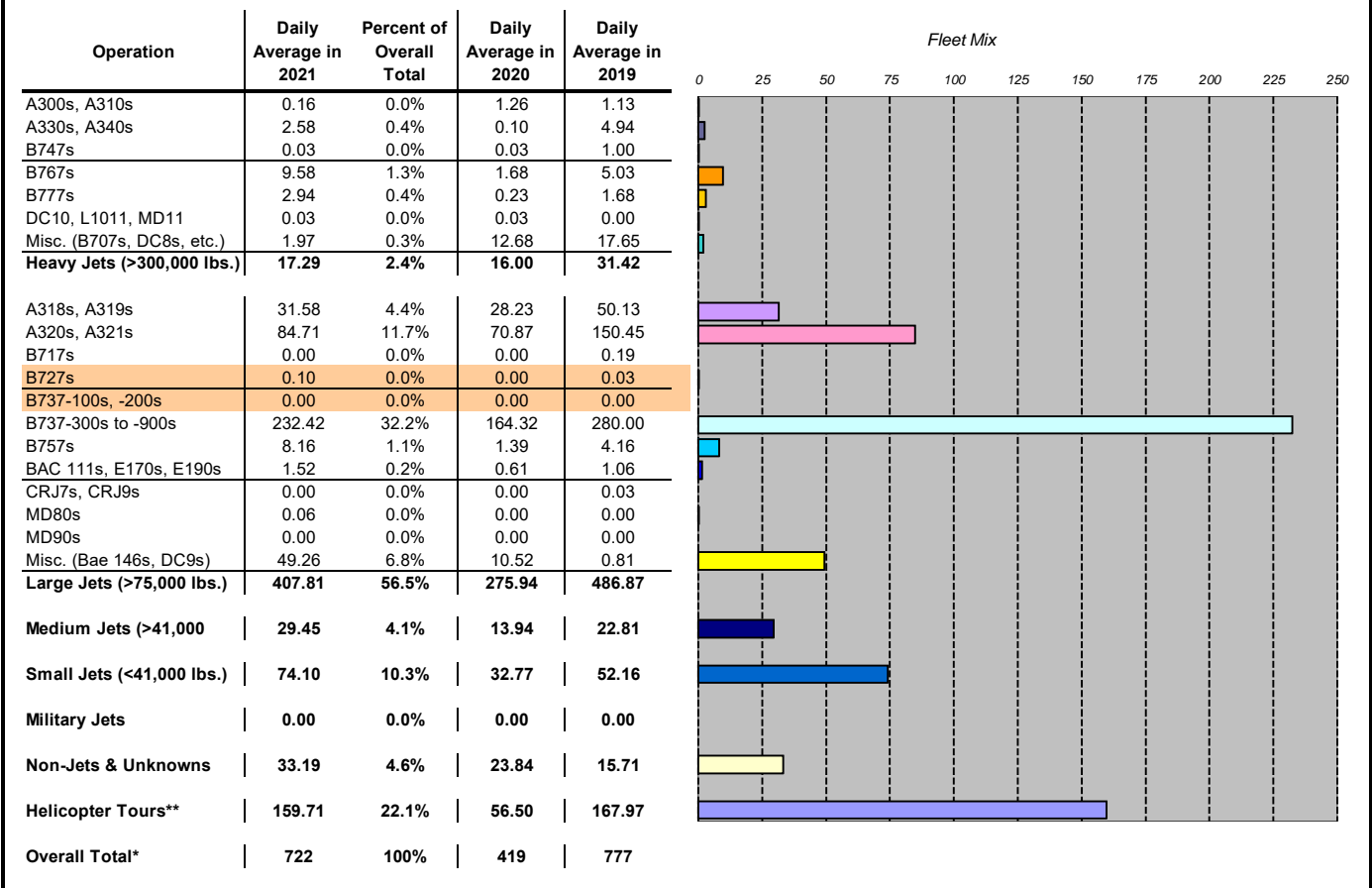


Exhibit 7: LAS Aircraft Arrival Fleet Mix** - July 2021



* 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. **Totals include four operations from other airport facilities.

Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft* - July 2021 to 2019

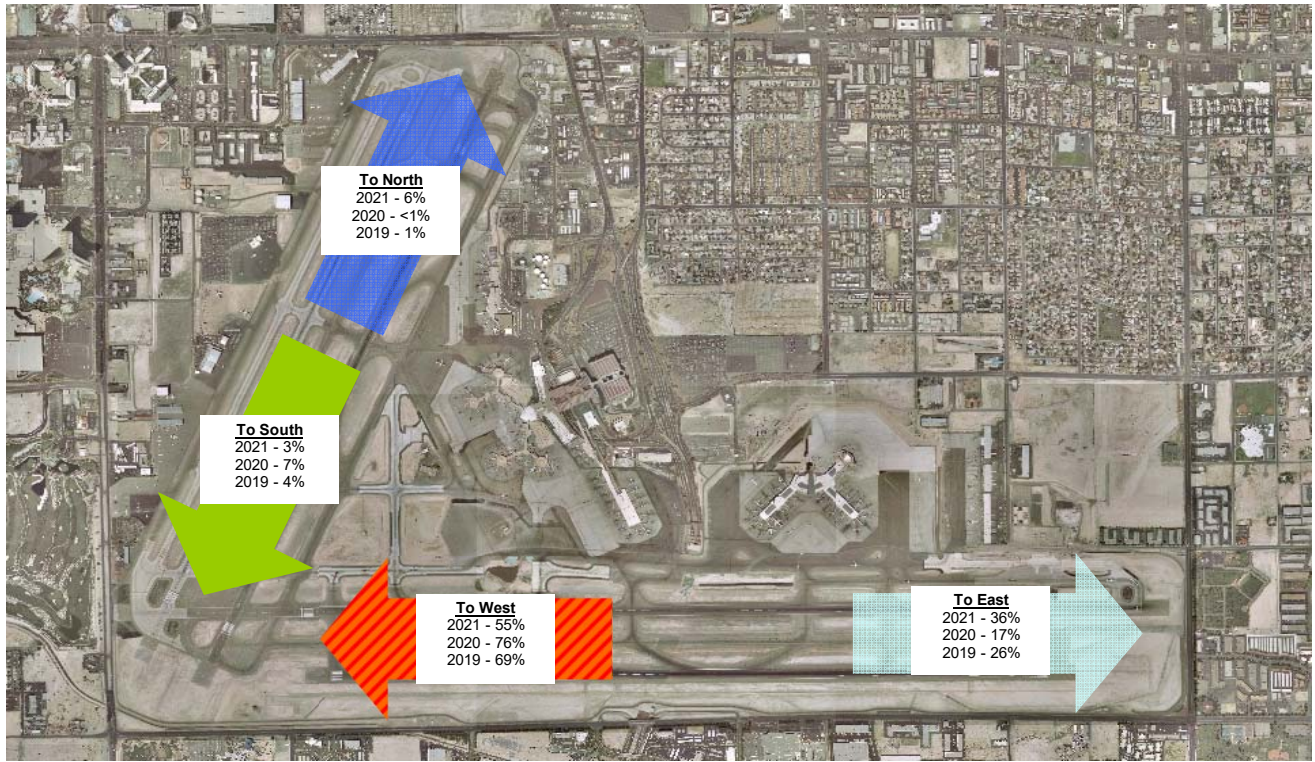
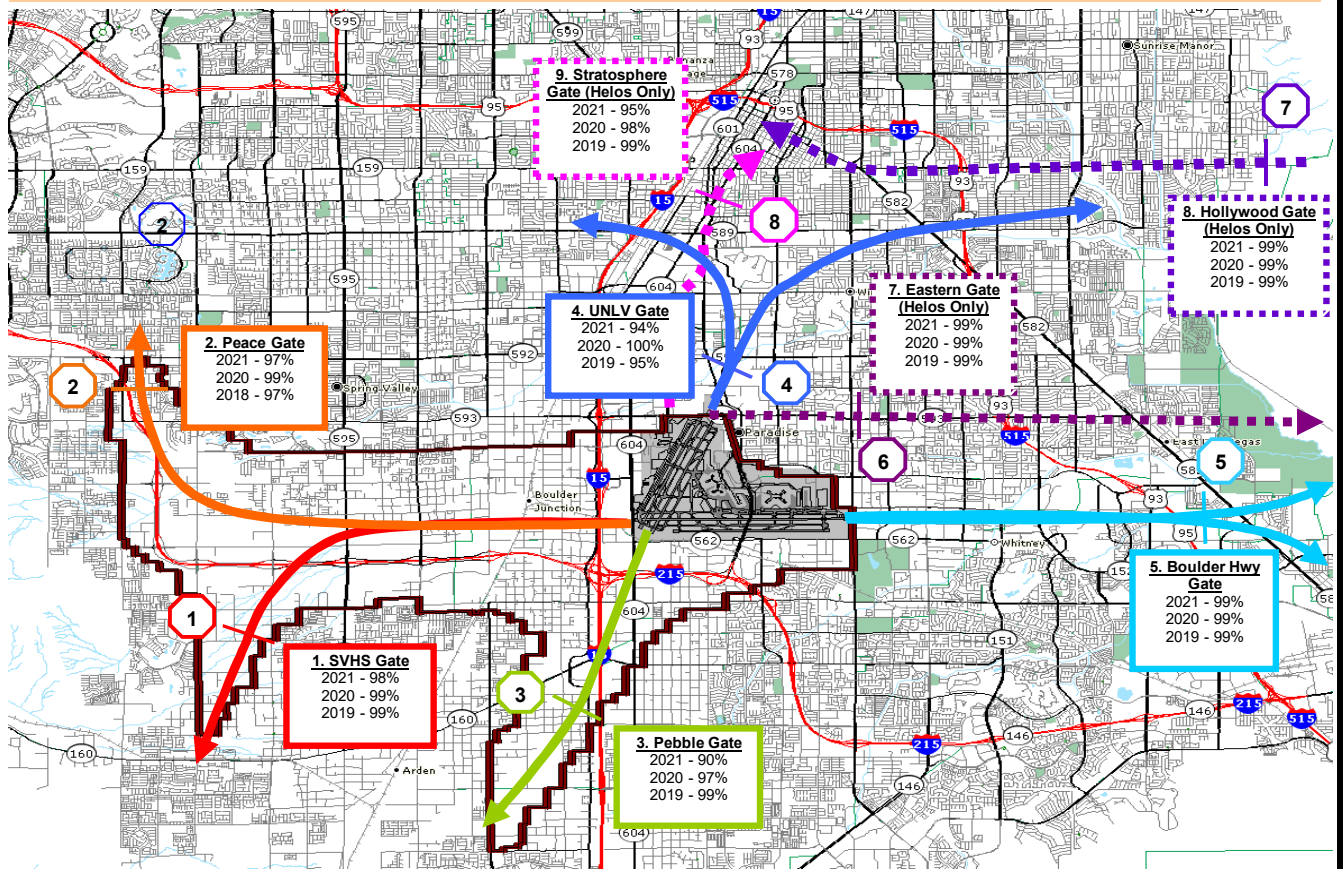


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - July 2021



* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A370, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 10: Land Use Application Reviews & Comments - July 2021

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
No. of Land Use Applications Reviewed	136	18	43	13	210	195	324
No. of Applications where CCDOA Issued a Comment	14	2	0	0	16	13	17
Percent of Applications where Comment Issued	10%	11%	0%	0%	8%	7%	5%

Exhibit 11: Land Use Application Comments by Airport Concern - July 2021

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Deed Restrictions	0	1	0	0	1	0	0
Height-Penetrates Part 77 100:1 Surfaces >200'	3	2	0	0	5	6	10
Height-Penetrates Part 77 PATH-C Surfaces*	1	0	0	0	1	0	0
Heliport/Helipad	0	0	0	0	0	0	0
Noisy-Commercial within AEOD**	3	0	0	0	3	2	2
Noisy-Residential within the AEOD**	0	0	0	0	0	0	1
Noisy-Residential Just Outside the AEOD**	8	1	0	0	9	6	8
Misc.-If applicable, detailed info. provided within the written summary	0	0	0	0	0	0	0
Total***	15	4	0	0	19	14	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* - July 2021

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Within the AEOD	0	0	0	0	0	0	524
Just Outside the AEOD	742	4	0	0	746	629	1,162

*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* - July 2021

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Recommend Denial	0	1	0	0	1	0	1
Opposed at Hearings	0	0	0	0	0	0	1

*If denied or opposed at a hearing, detailed information provided within the written summary portion.

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - July 2021

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.

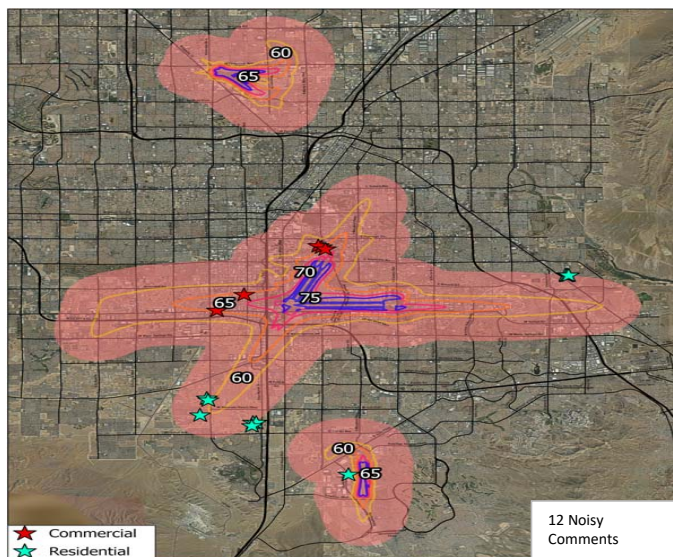


Exhibit 15: Noisy Comments - LAS Detail - July 2021

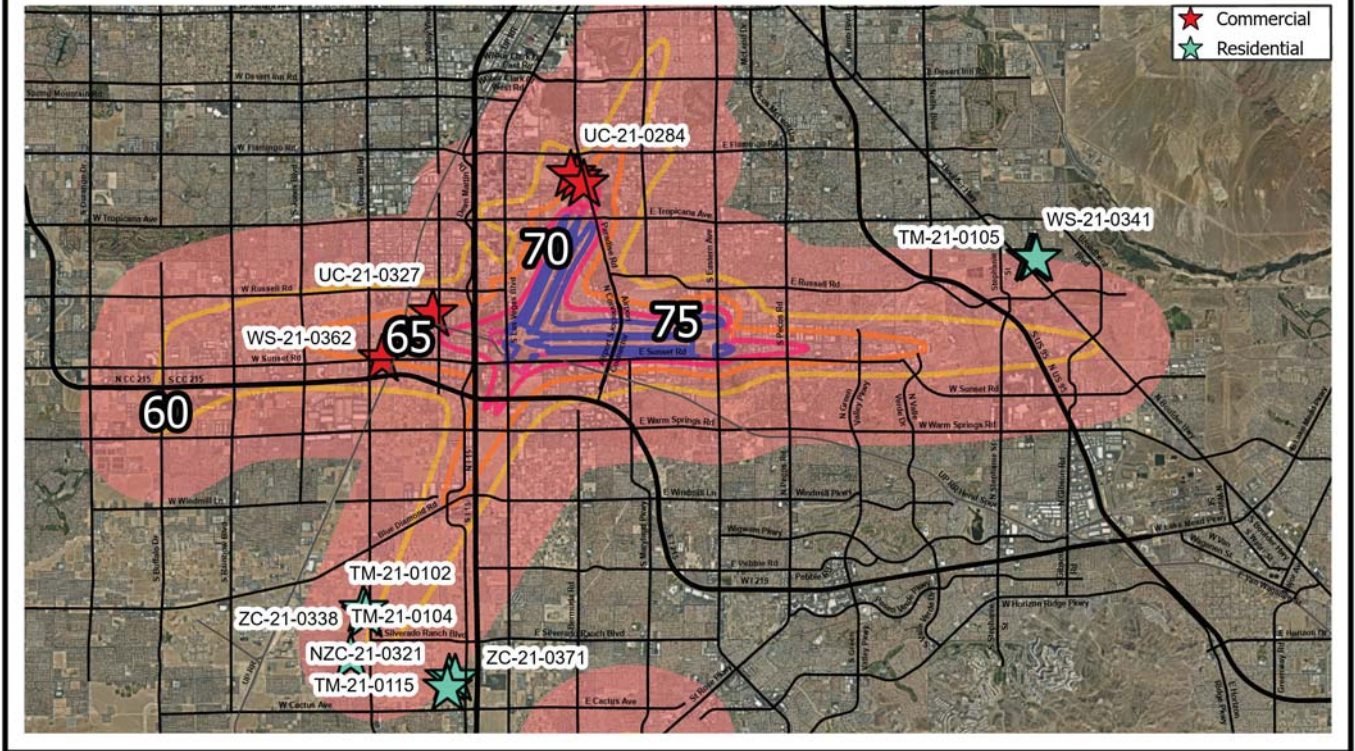


Exhibit 16: Noisy Comments - HND Detail - July 2021

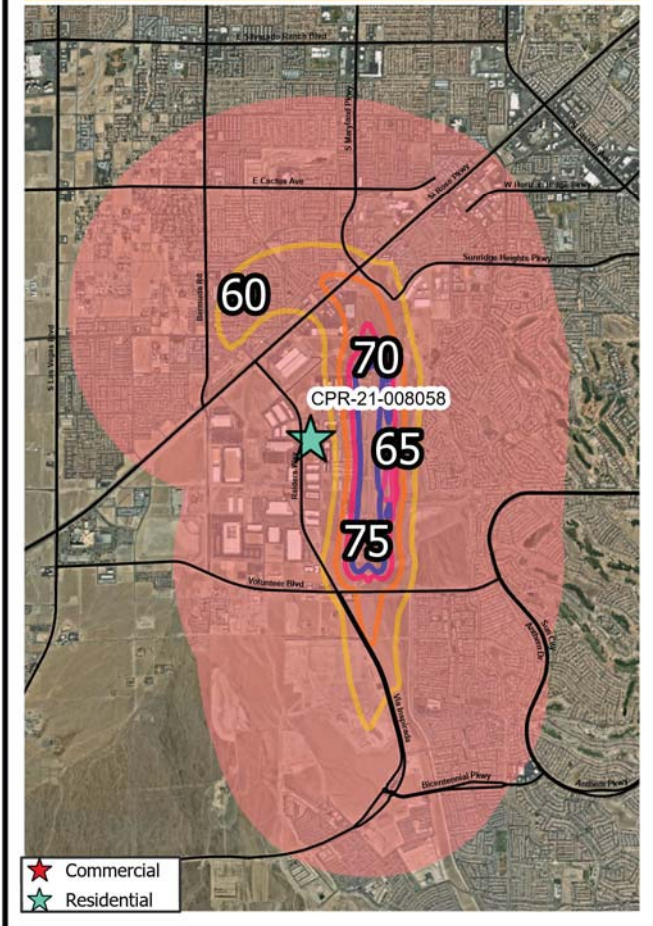


Exhibit 17: Noisy Comments - VGT Detail - July 2021

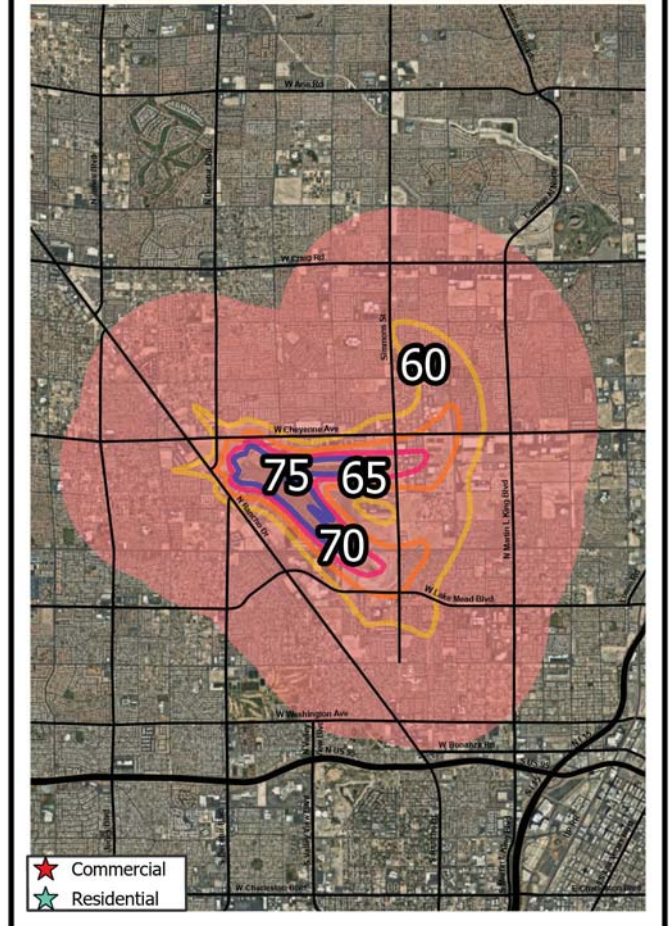
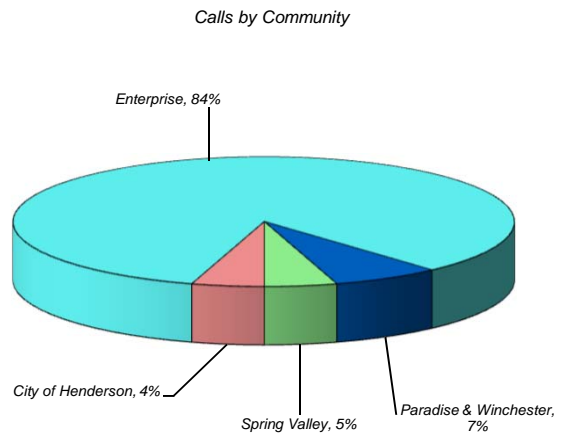


Exhibit 1: Noise Complaint Calls by Community* - August 2021

Community	No. of Calls in 2021	No. of Callers in 2021	No. of Calls in 2020	No. of Calls in 2019
City of Boulder City	2	2	2	1
City of Henderson			1	
City of Las Vegas				
City of North Las Vegas				
Enterprise	36	6	1	3
Lone Mountain				
Paradise & Winchester	3	2		
Spring Valley	2	1	3	30
Summerlin South			1	
Sunrise Manor				1
Whitney				
Location unknown				
Overall Total	43	11	8	35



Difference between 2021 and 2020 Total Calls: 438%

Difference between 2021 and 2019 Total Calls: 23%

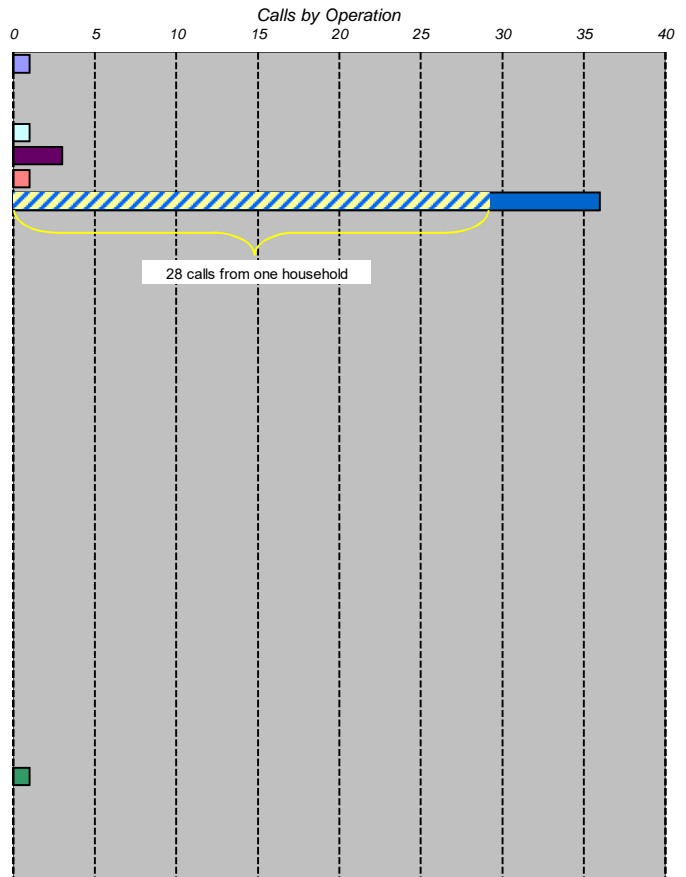
Average Number of Calls per Caller: 3.9

Most calls received from one household: 28

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

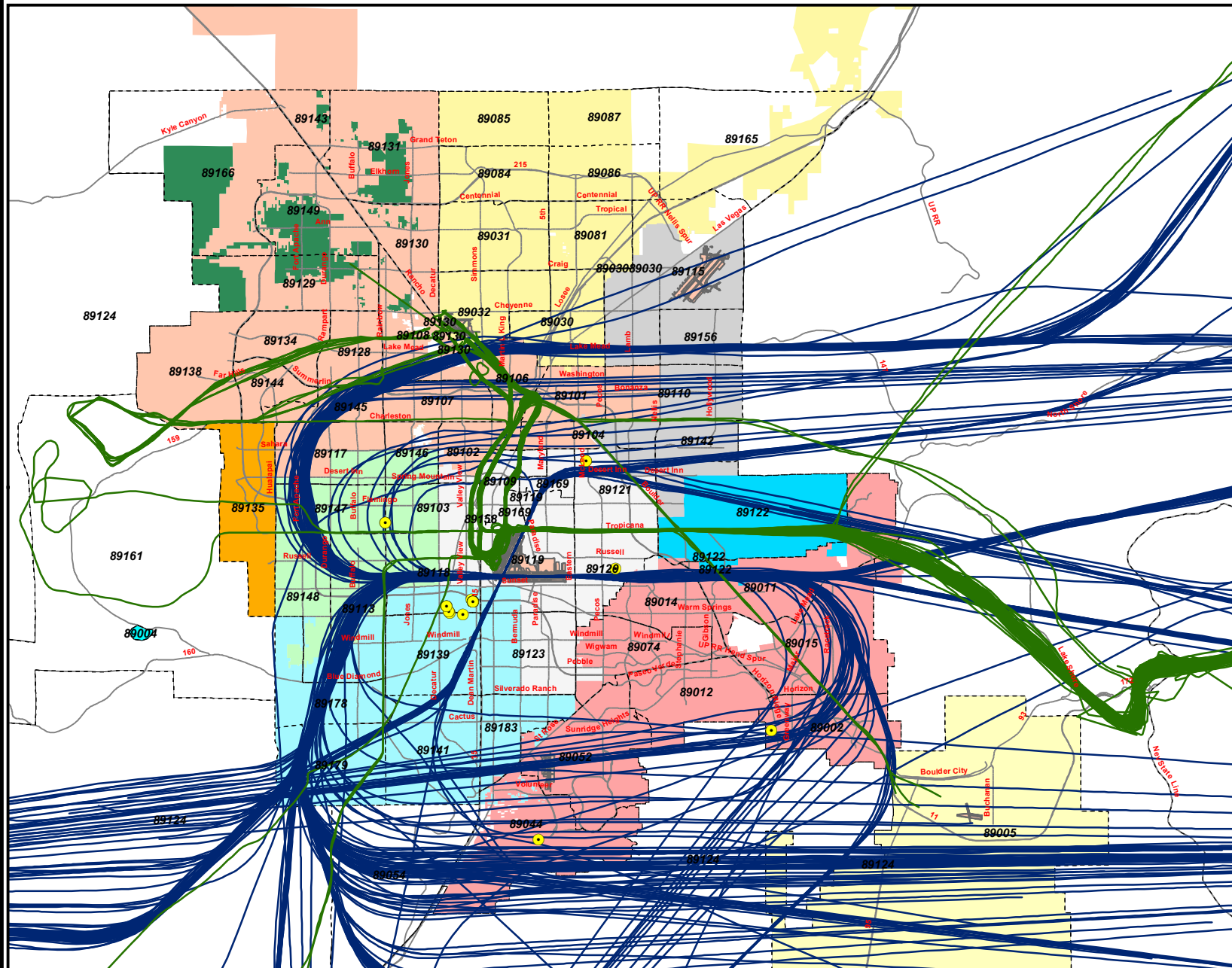
Exhibit 2: Noise Complaint Calls by Type of Operation - August 2021

Operation	No. of Calls in 2021	Percent of Overall Total	No. of Calls in 2020	No. of Calls in 2019
LAS 01R/L Arrivals	1	2.3%		
LAS 08R/L Arrivals				3
LAS 19R/L Arrivals				
LAS 26R/L Arrivals	1	2.3%	1	
LAS 01R/L Departures	3	7.0%	2	
LAS 08R/L Departures	1	2.3%		
LAS 19R/L Departures	36	83.7%		
LAS 26R/L Departures			2	30
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	42	97.7%	5	33
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA			1	
VGT Other				
VGT Total	0	0.0%	1	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	2.3%	1	1
HND Other				
HND Total	1	2.3%	1	1
Helicopters**			1	1
Overall Total	43	100%	8	35



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

Exhibit 3: Aircraft Noise Complaints by Community - August 2021



Legend

August 2021
Total Complaints: 43

- Aircraft Complaints Received 43 Mapped 43
- ★ Helicopter Complaints Received 0 Mapped 0
- 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

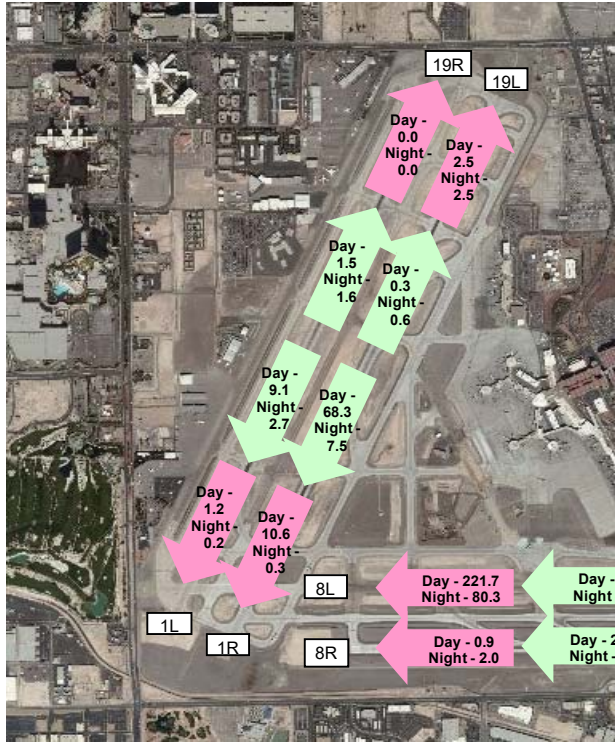
Department of Aviation
Geographic Information Systems

10/19/2021

Note: This information is for 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* - August 2021

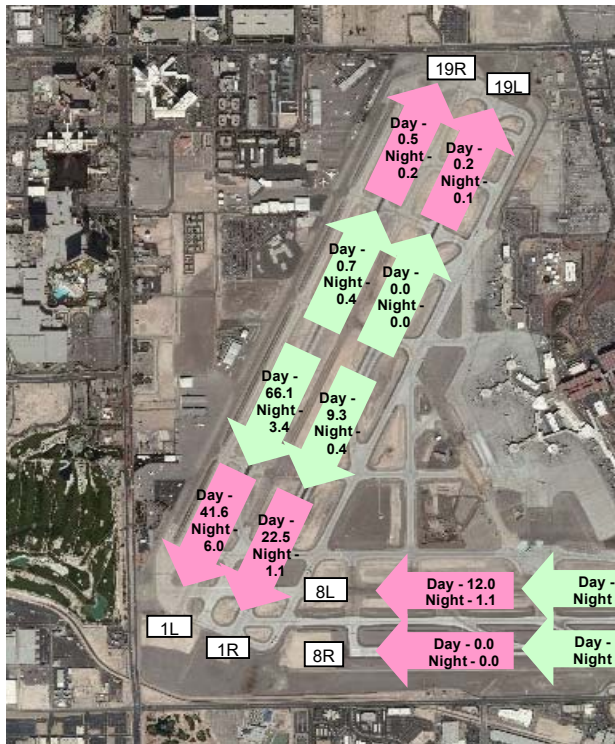


Year	2021		2020		2019	
Daytime Departures	343	79%	278	88%	420	79%
Nighttime Departures	94	21%	38	12%	109	21%
Total Departures	437	100%	317	100%	530	100%
Daytime Arrivals	351	82%	292	92%	445	85%
Nighttime Arrivals	80	18%	26	8%	80	15%
Total Arrivals	430	100%	318	100%	525	100%

Growth	Overall	Daytime	Nighttime
Depts. 2021 vs 2020	38%	23%	145%
Depts. 2021 vs 2019	-18%	-18%	-14%
Arrivals 2021 vs 2020	35%	20%	211%
Arrivals 2021 vs 2019	-18%	-21%	-1%

* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A340, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft** - August 2021



Year	2021		2020		2019	
Daytime Departures	117	93%	67	86%	82	90%
Nighttime Departures	9	7%	11	14%	9	10%
Total Departures	126	100%	77	100%	91	100%
Daytime Arrivals	117	96%	66	92%	82	91%
Nighttime Arrivals	5	4%	6	8%	8	9%
Total Arrivals	122	100%	72	100%	90	100%

Growth	Overall	Daytime	Nighttime
Depts. 2021 vs 2020	63%	75%	-14%
Depts. 2021 vs 2019	38%	42%	-1%
Arrivals 2021 vs 2020	69%	77%	-25%
Arrivals 2021 vs 2019	35%	43%	-43%

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

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - August 2021

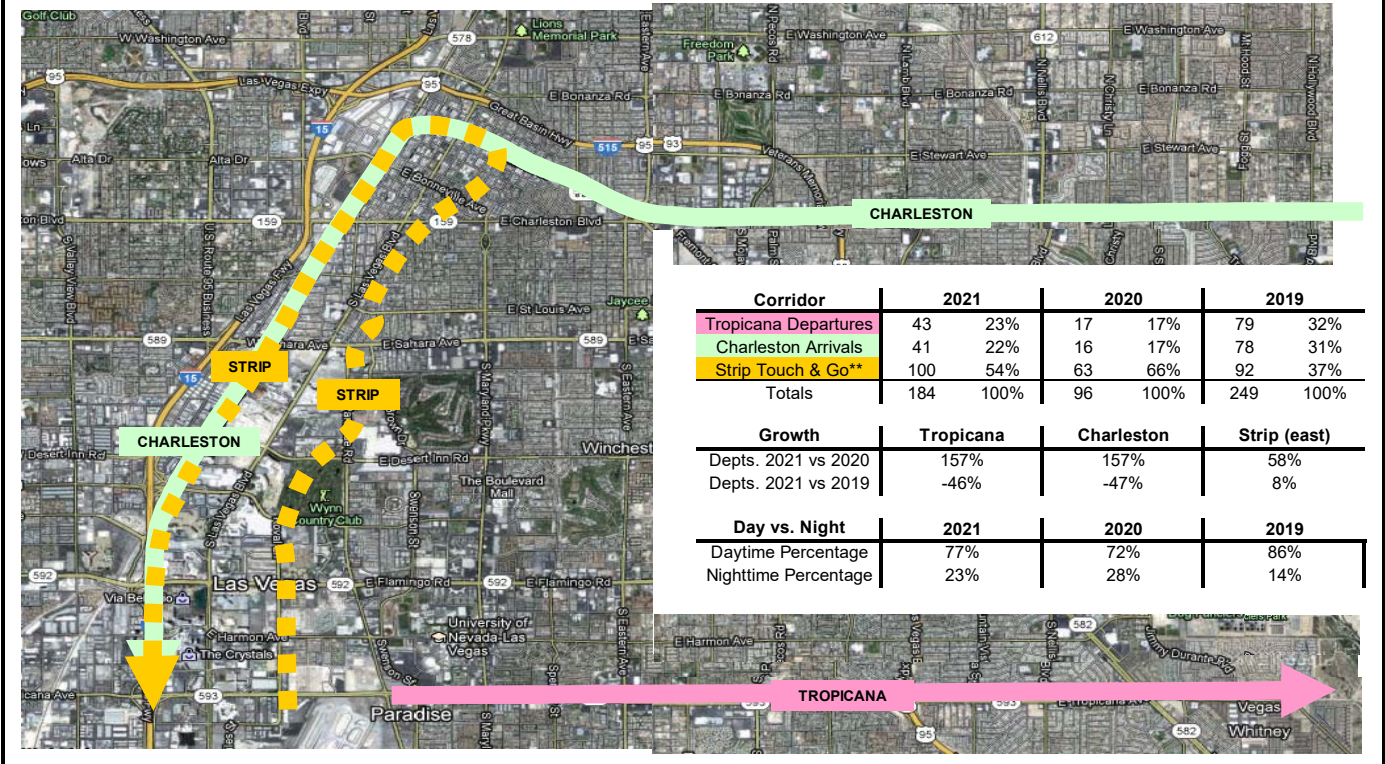
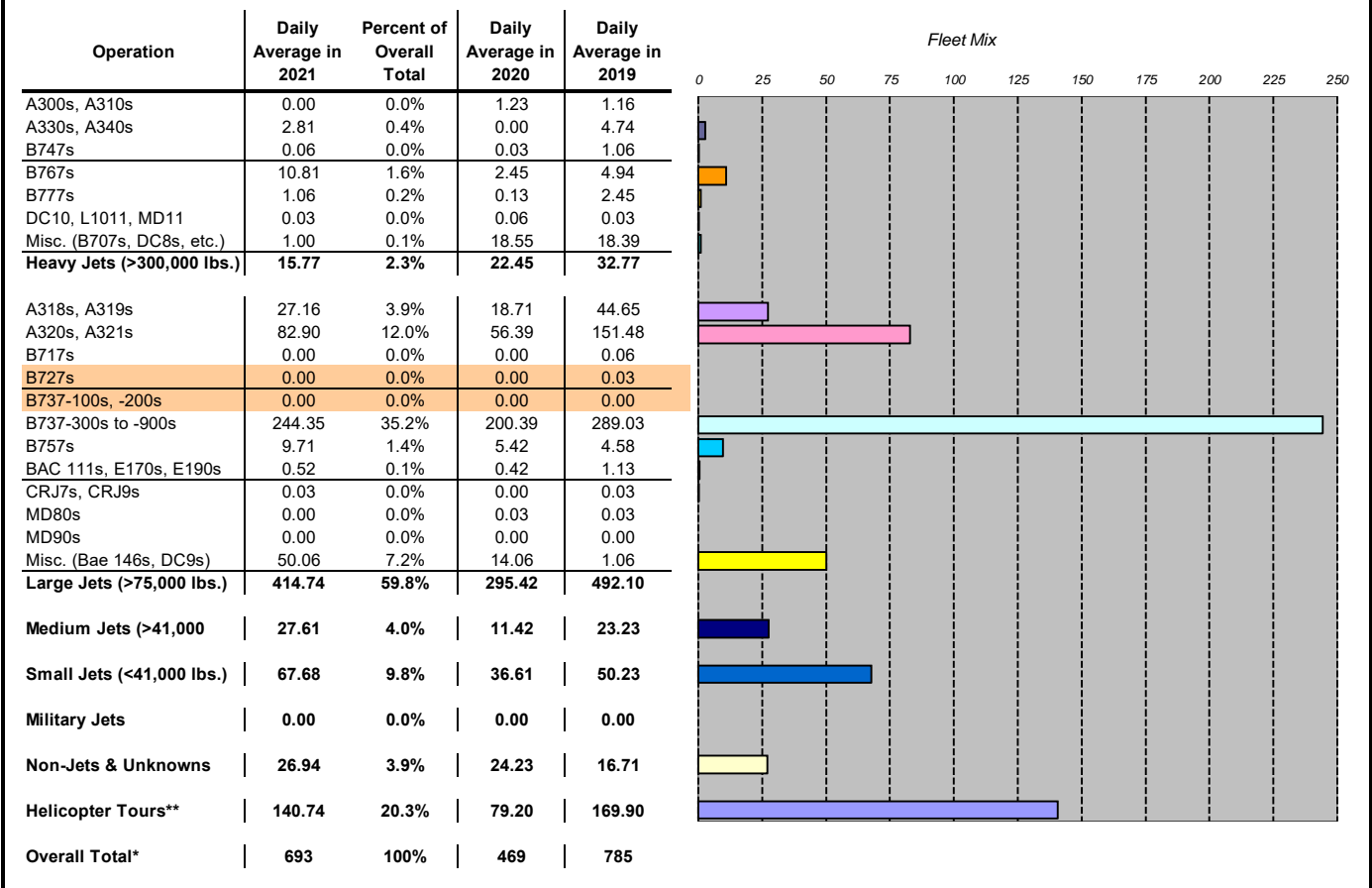


Exhibit 7: LAS Aircraft Arrival Fleet Mix** - August 2021



* 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. ** Totals include tour operations from other airport facilities.

Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft* - August 2021 to 2019

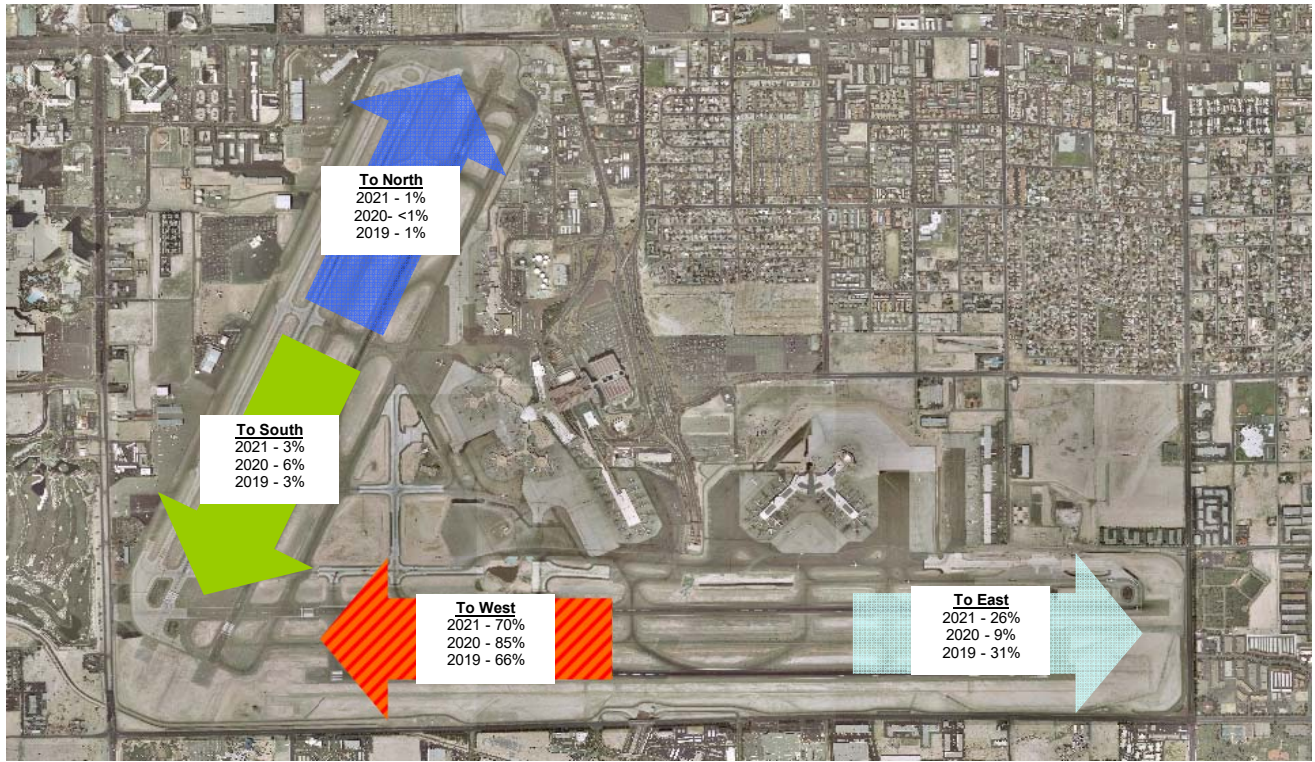
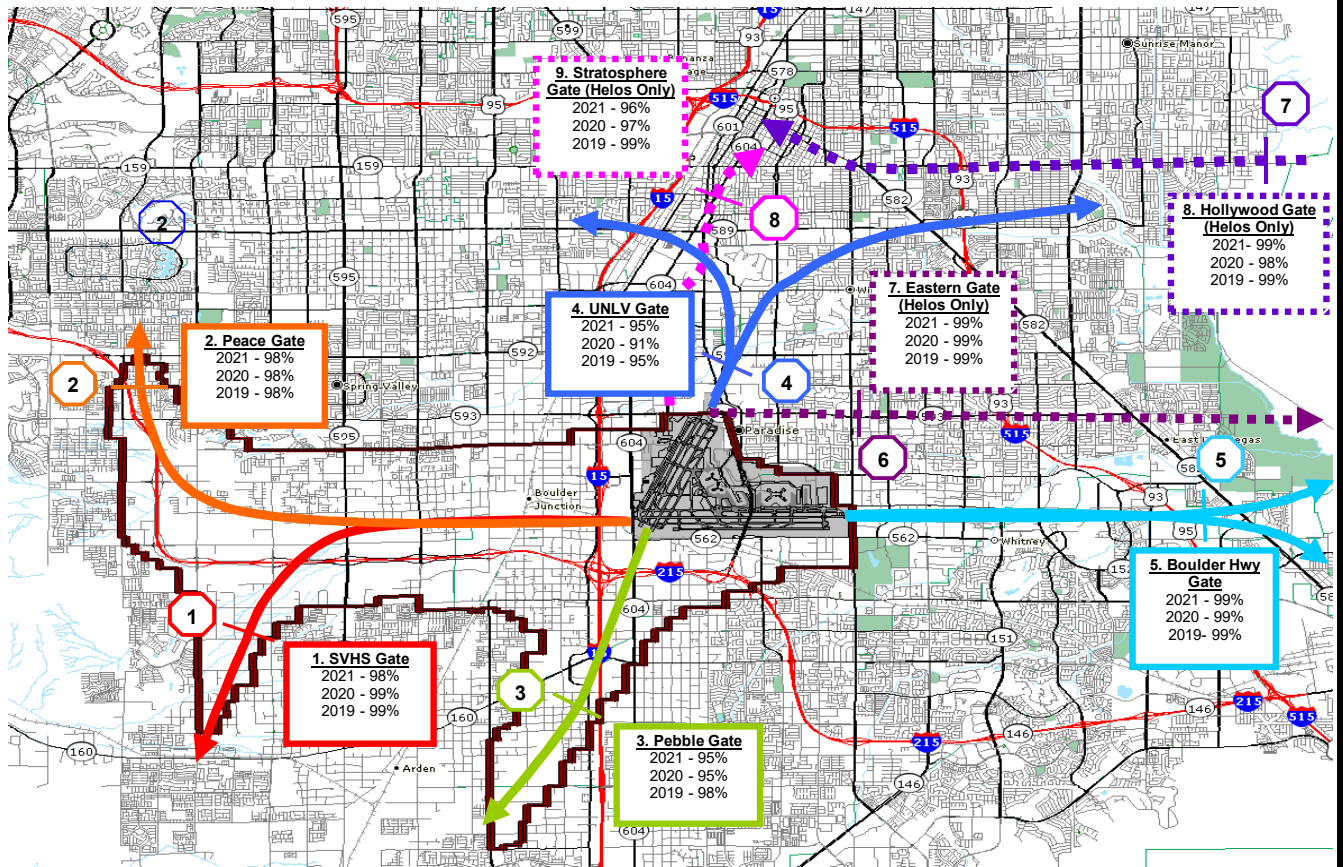


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - August 2021



* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A370, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 10: Land Use Application Reviews & Comments - August 2021

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
No. of Land Use Applications Reviewed	124	45	33	20	222	153	301
No. of Applications where CCDOA Issued a Comment	14	7	0	1	22	7	19
Percent of Applications where Comment Issued	11%	16%	0%	5%	10%	5%	6%

Exhibit 11: Land Use Application Comments by Airport Concern - August 2021

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Deed Restrictions	1	0	0	0	1	0	0
Height-Penetrates Part 77 100:1 Surfaces >200'	7	5	0	0	12	2	9
Height-Penetrates Part 77 PATH-C Surfaces*	1	0	0	0	1	0	2
Heliport/Helipad	1	0	0	0	1	0	0
Noisy-Commercial within AEOD**	3	0	0	0	3	0	4
Noisy-Residential within the AEOD**	0	0	0	0	0	2	1
Noisy-Residential Just Outside the AEOD**	3	4	0	1	8	3	6
Misc.-If applicable, detailed info. provided within the written summary	0	0	0	0	0	0	0
Total***	16	9	0	1	26	7	22

* 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* - August 2021

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Within the AEOD	0	0	0	0	0	251	1
Just Outside the AEOD	204	877	0	70	1,151	671	743

*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* - August 2021

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Recommend Denial	0	0	0	0	0	0	0
Opposed at Hearings	0	0	0	0	0	0	1

*If denied or opposed at a hearing, detailed information provided within the written summary portion.

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - August 2021

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.

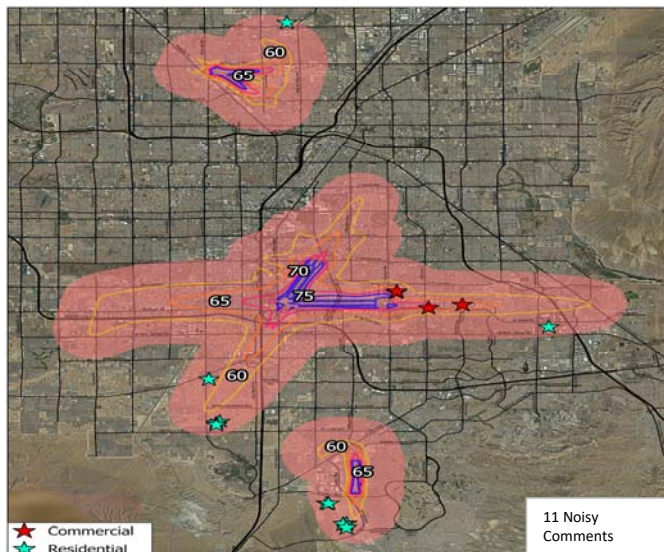


Exhibit 15: Noisy Comments - LAS Detail - August 2021

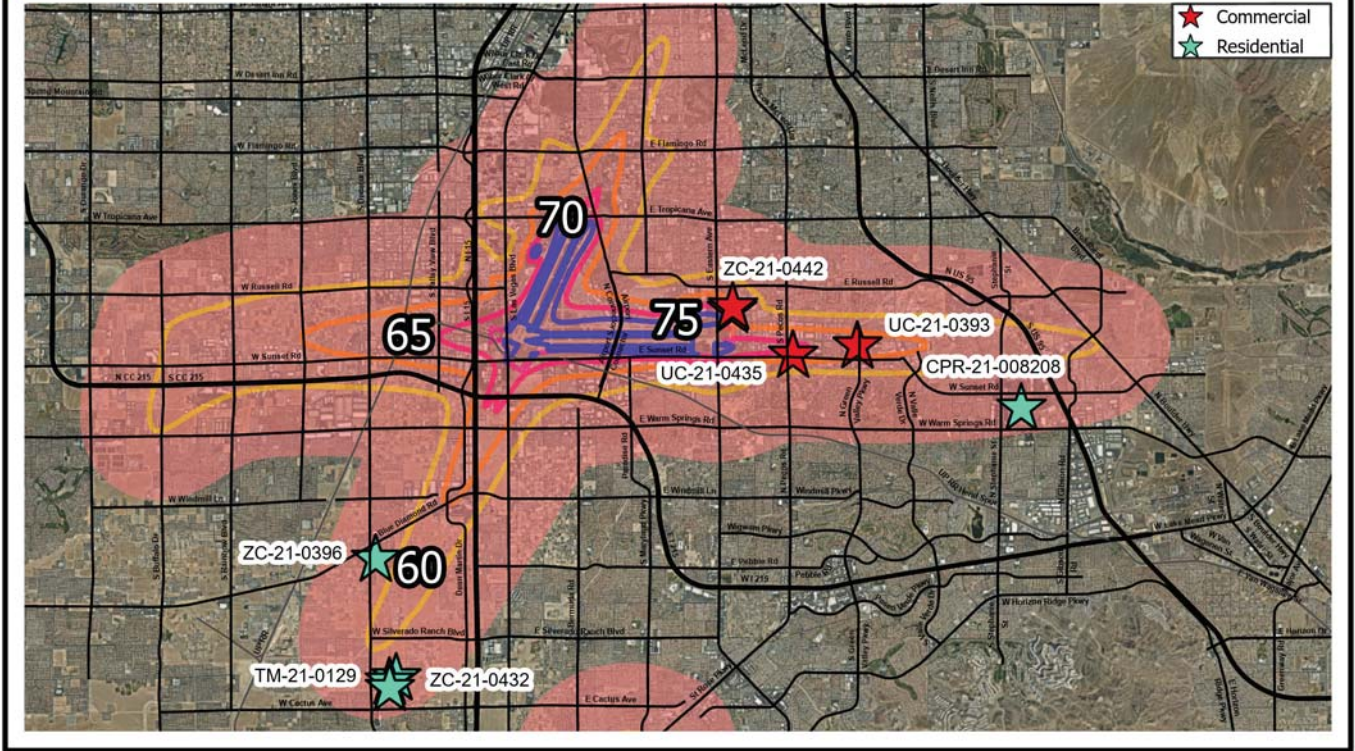


Exhibit 16: Noisy Comments - HND Detail - August 2021

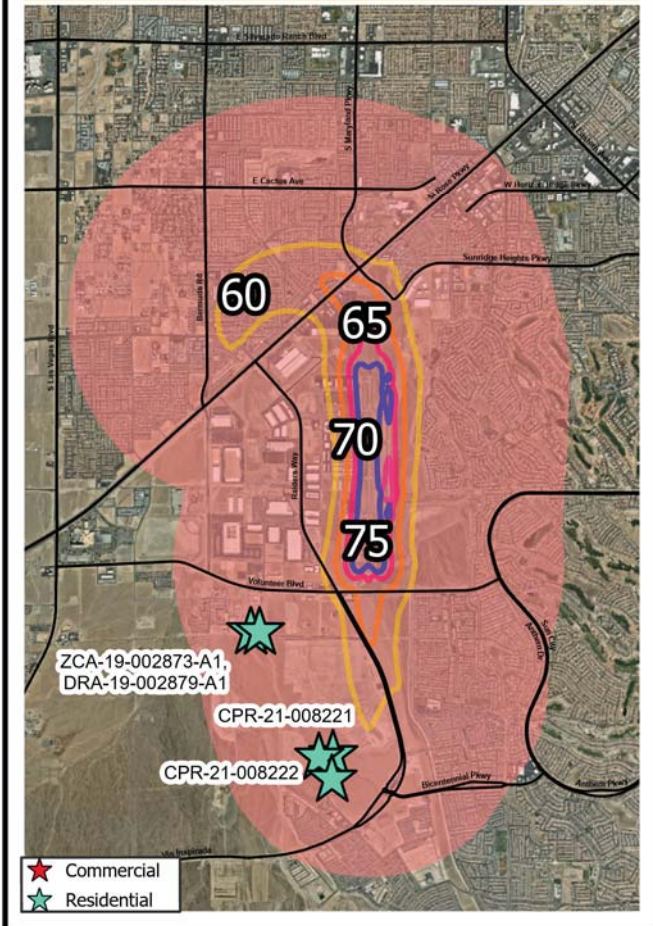


Exhibit 17: Noisy Comments - VGT Detail - August 2021

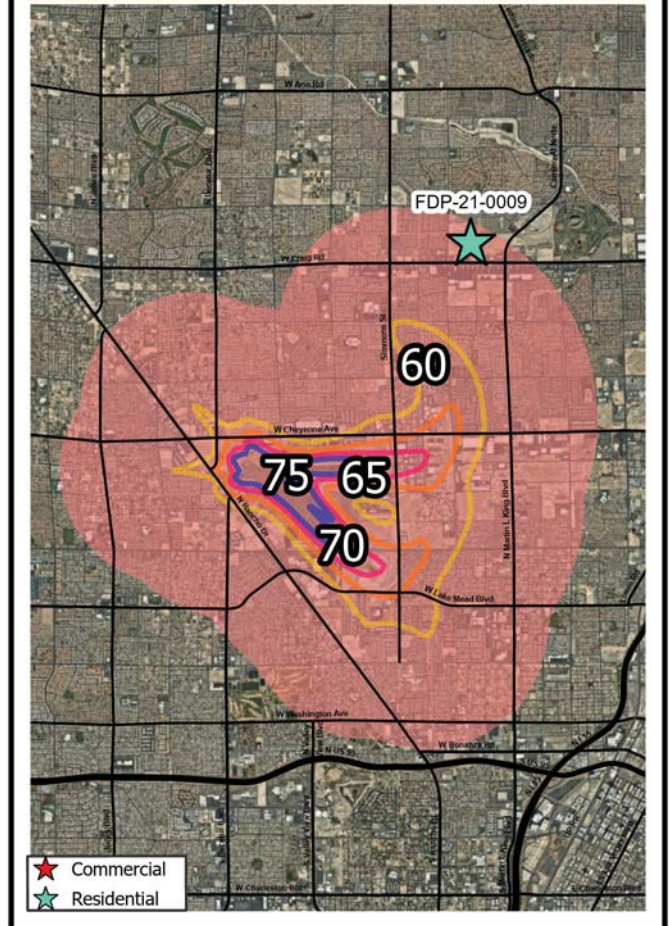


Exhibit 1: Noise Complaint Calls by Community* - September 2021

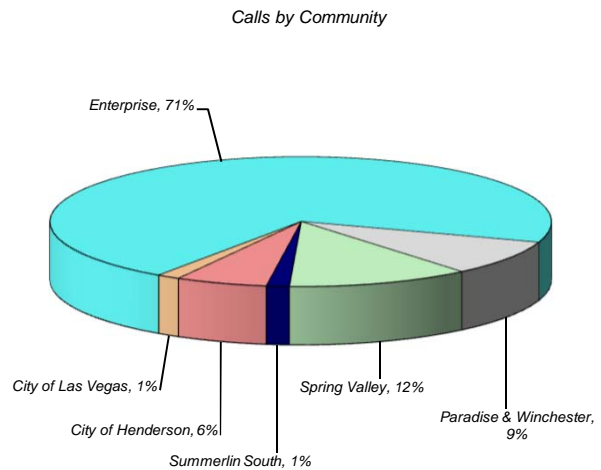
Community	No. of Calls in 2021	No. of Callers in 2021	No. of Calls in 2020	No. of Calls in 2019
City of Boulder City	4	2	8	5
City of Henderson	1	1	1	1
City of Las Vegas	1	1	1	1
City of North Las Vegas				
Enterprise	48	10	15	11
Lone Mountain				
Paradise & Winchester	6	5		5
Spring Valley	8	2	15	13
Summerlin South	1	1		
Sunrise Manor				1
Whitney				
Location unknown				
Overall Total	68	21	39	36

Difference between 2021 and 2020 Total Calls: 74%

Difference between 2021 and 2019 Total Calls: 89%

Average Number of Calls per Caller: 3.2

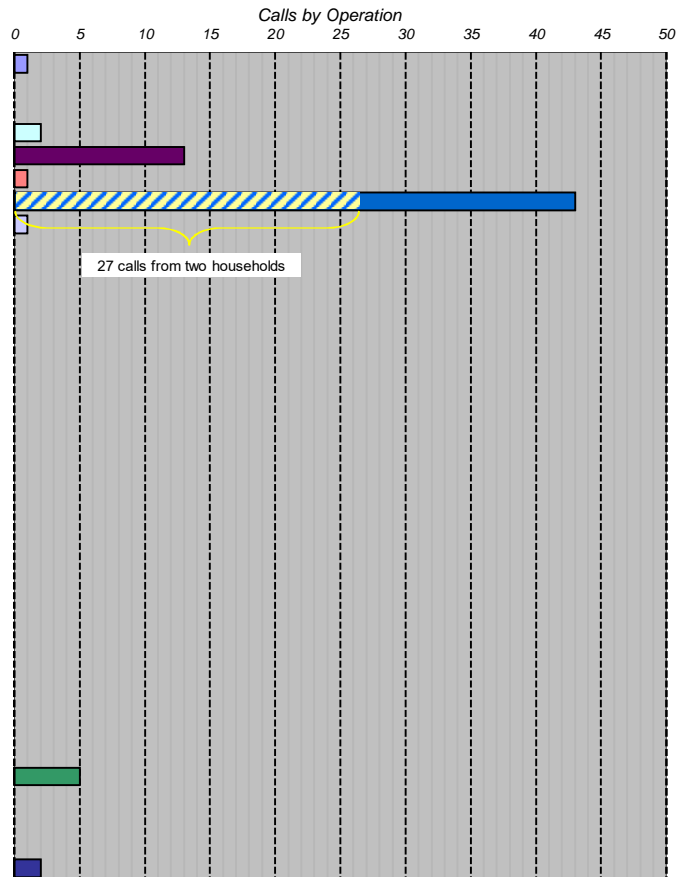
Most calls received from one household: 15



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

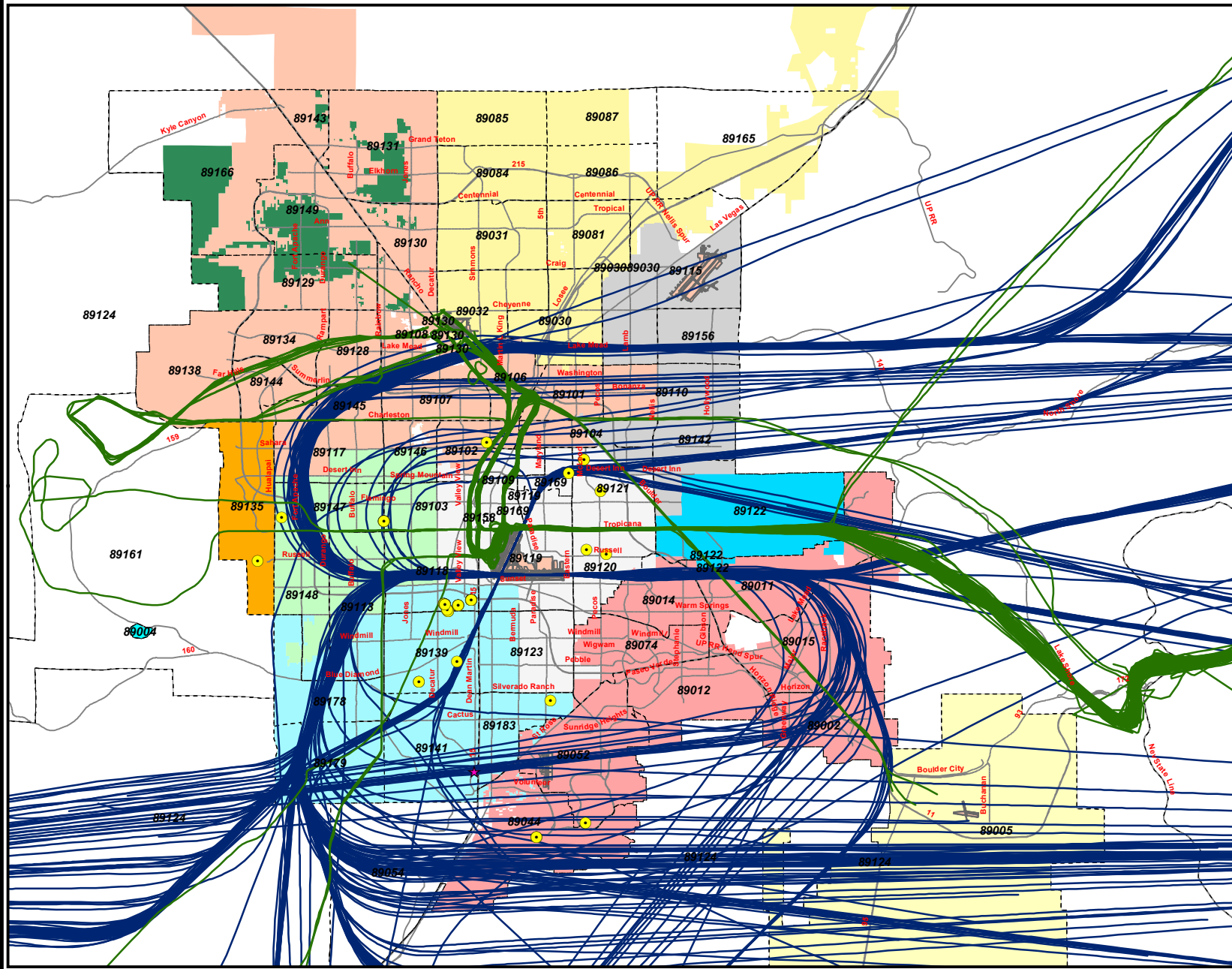
Exhibit 2: Noise Complaint Calls by Type of Operation - September 2021

Operation	No. of Calls in 2021	Percent of Overall Total	No. of Calls in 2020	No. of Calls in 2019
LAS 01R/L Arrivals	1	1.5%		
LAS 08R/L Arrivals				
LAS 19R/L Arrivals				
LAS 26R/L Arrivals	2	2.9%	1	10
LAS 01R/L Departures	13	19.1%	13	17
LAS 08R/L Departures	1	1.5%		1
LAS 19R/L Departures	43	63.2%	1	2
LAS 26R/L Departures	1	1.5%	2	
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	61	89.7%	17	30
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA				
VGT Other				
VGT Total	0	0.0%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	5	7.4%	21	2
HND Other				
HND Total	5	7.4%	21	2
Helicopters**	2	2.9%	1	4
Overall Total	68	100%	39	36



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

Exhibit 3: Aircraft Noise Complaints by Community - September 2021



Legend

September 2021
Total Complaints: 68

- Aircraft Complaints Received 66 Mapped 66
- ★ Helicopter Complaints Received 2 Mapped 2
- 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

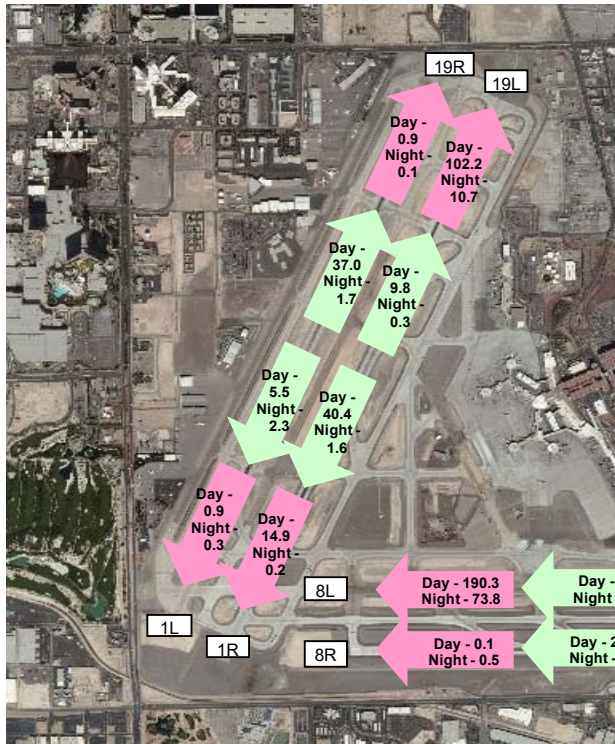
Department of Aviation
Geographic Information Systems

10/19/2021

Note: This information is for 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* - September 2021



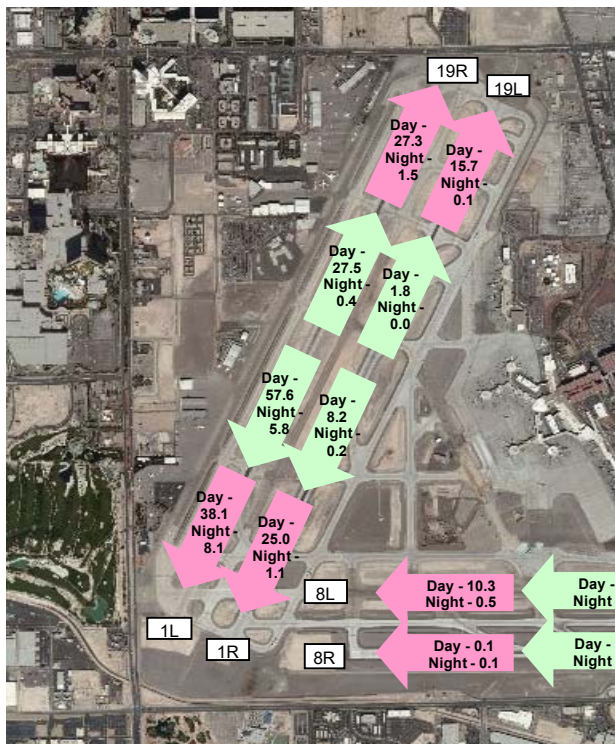
Year	2021		2020		2019	
Daytime Departures	379	81%	252	90%	439	82%
Nighttime Departures	89	19%	28	10%	96	18%
Total Departures	468	100%	280	100%	535	100%

Daytime Arrivals	399	86%	264	95%	460	87%
Nighttime Arrivals	64	14%	15	5%	68	13%
Total Arrivals	463	100%	279	100%	529	100%

Growth	Overall	Daytime	Nighttime
Depts. 2021 vs 2020	67%	50%	216%
Depts. 2021 vs 2019	-13%	-14%	-7%
Arrivals 2021 vs 2020	66%	51%	336%
Arrivals 2021 vs 2019	-12%	-13%	-6%

* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A340, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft** - September 2021



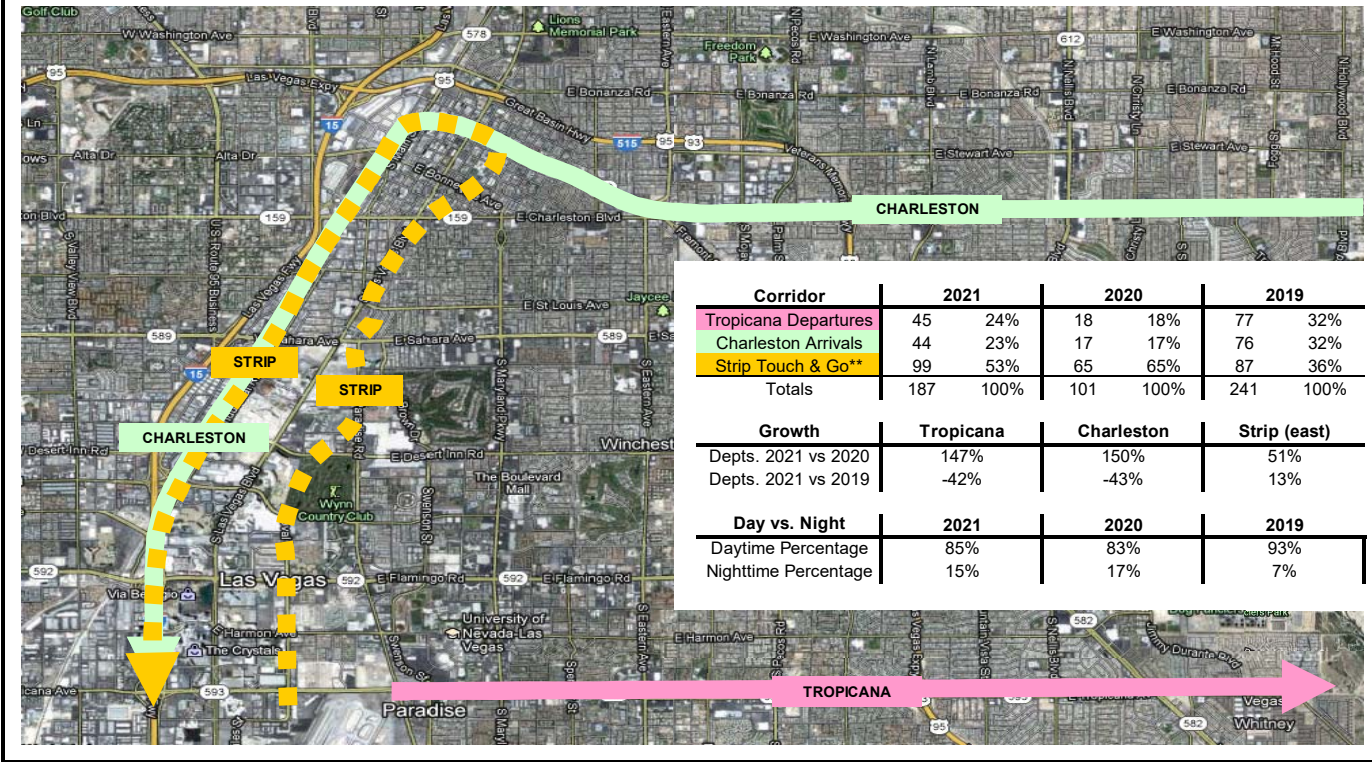
Year	2021		2020		2019	
Daytime Departures	140	92%	72	86%	106	91%
Nighttime Departures	12	8%	12	14%	10	9%
Total Departures	151	100%	83	100%	116	100%

Daytime Arrivals	140	95%	73	92%	106	94%
Nighttime Arrivals	7	5%	7	8%	7	6%
Total Arrivals	147	100%	79	100%	112	100%

Growth	Overall	Daytime	Nighttime
Depts. 2021 vs 2020	81%	95%	-2%
Depts. 2021 vs 2019	30%	31%	16%
Arrivals 2021 vs 2020	86%	94%	0%
Arrivals 2021 vs 2019	31%	33%	-3%

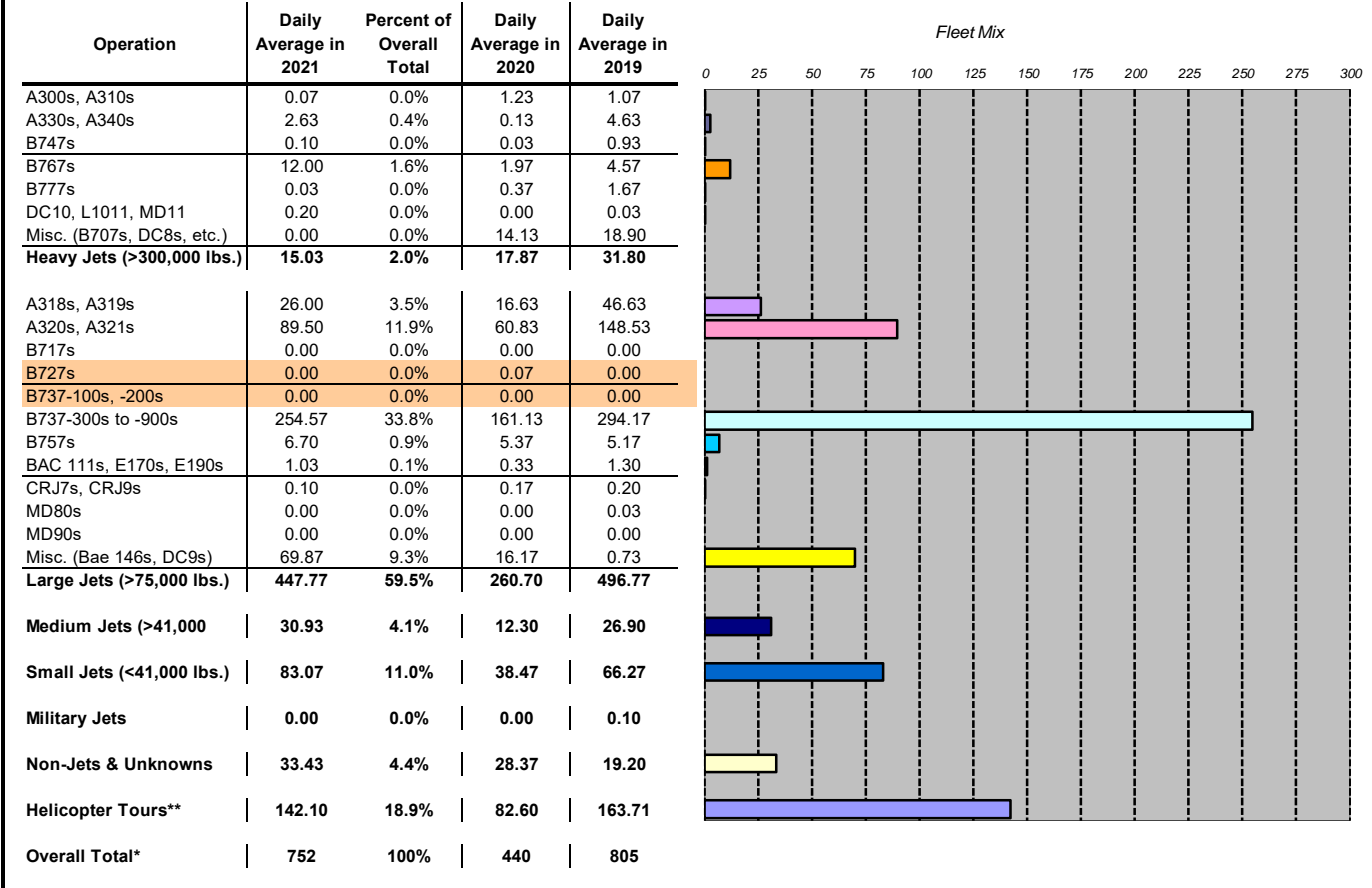
** Aircraft types: All aircraft with a maximum gross take of weight less than 75,000 pounds, excluding helicopters.

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - September 2021



Corridor	2021	2020	2019
Tropicana Departures	45 24%	18 18%	77 32%
Charleston Arrivals	44 23%	17 17%	76 32%
Strip Touch & Go**	99 53%	65 65%	87 36%
Totals	187 100%	101 100%	241 100%
Growth	Tropicana	Charleston	Strip (east)
Depts. 2021 vs 2020	147%	150%	51%
Depts. 2021 vs 2019	-42%	-43%	13%
Day vs. Night	2021	2020	2019
Daytime Percentage	85%	83%	93%
Nighttime Percentage	15%	17%	7%

Exhibit 7: LAS Aircraft Arrival Fleet Mix** - September 2021



* 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. **Totals include four operations from other airport facilities.

Exhibit 8: LAS General Departure Direction for Large Air Carrier Aircraft* - September 2021 to 2019

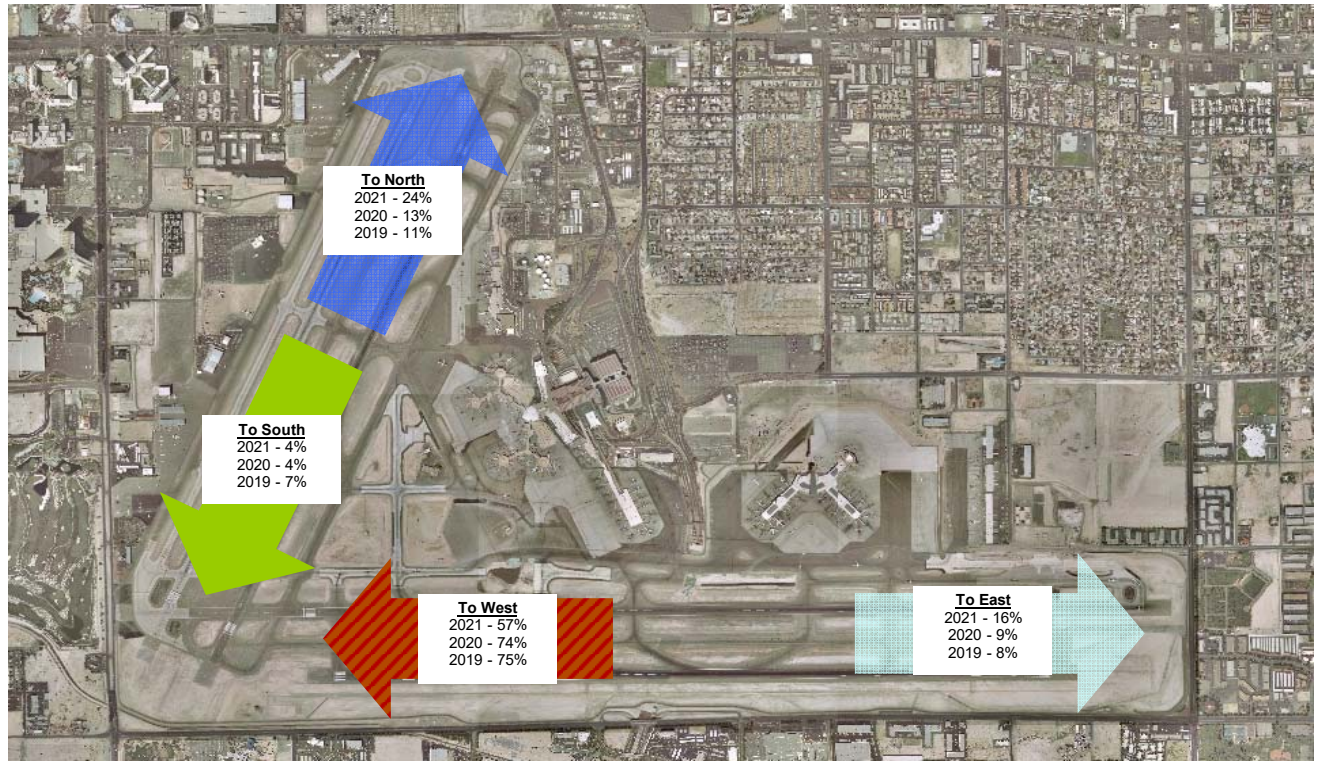
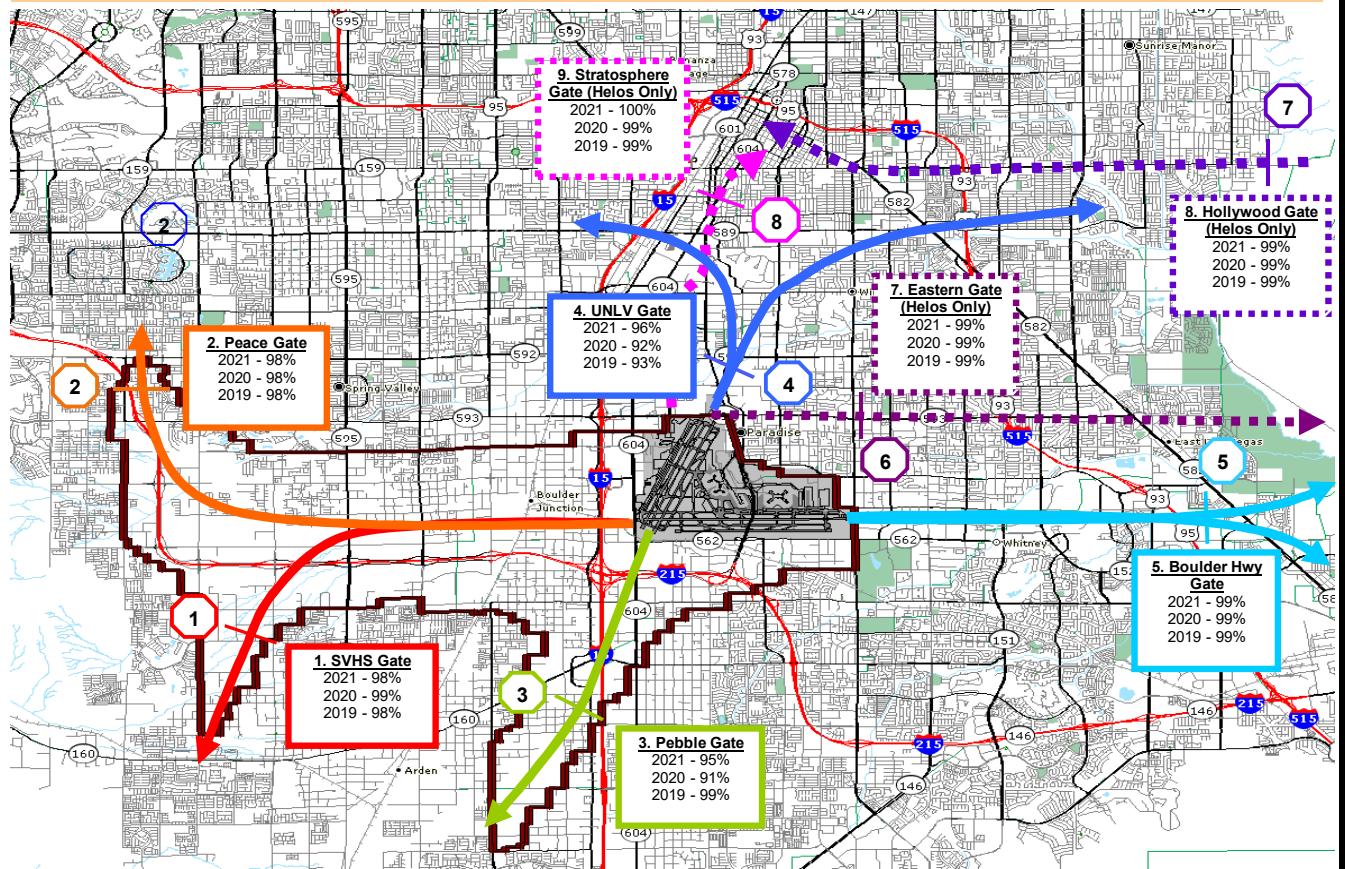


Exhibit 9: "Gate" Compliance for Large Aircraft* & Helicopter Tours - September 2021



* Aircraft types: All aircraft with a maximum gross take of weight of at least 75,000 pounds, including but not limited to, A306, A310, A311, A318, A319, A320, A330, A370, B707, B717, B727, B737, B747, B757, B767, B777, CRJ7, CRJ9, DC8, DC9, DC10, E170, E190, HA4T, L1011, MD80, MD90, MD10, MD11, VC10.

Exhibit 10: Land Use Application Reviews & Comments - September 2021

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
No. of Land Use Applications Reviewed	138	57	42	6	243	164	249
No. of Applications where CCDOA Issued a Comment	17	7	1	1	26	8	23
Percent of Applications where Comment Issued	12%	12%	2%	17%	11%	5%	9%

Exhibit 11: Land Use Application Comments by Airport Concern - September 2021

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Deed Restrictions	2	0	0	0	2	0	0
Height-Penetrates Part 77 100:1 Surfaces >200'	4	2	0	0	6	2	6
Height-Penetrates Part 77 PATH-C Surfaces*	0	0	0	0	0	0	2
Helipad/Helipad	0	0	0	0	0	0	0
Noisy-Commercial within AEOD**	5	1	0	1	7	3	4
Noisy-Residential within the AEOD**	2	1	0	0	3	2	0
Noisy-Residential Just Outside the AEOD**	7	3	1	0	11	1	14
Misc.-If applicable, detailed info. provided within the written summary	0	0	0	0	0	0	0
Total***	20	7	1	1	29	8	26

* 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* - September 2021

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Within the AEOD	646	166	0	0	812	356	0
Just Outside the AEOD	553	577	10	0	1,140	235	1,802

*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* - September 2021

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2021 Total	2020 Total	2019 Total
Recommend Denial	0	0	0	0	0	1	0
Opposed at Hearings	0	0	0	0	0	2	0

*If denied or opposed at a hearing, detailed information provided within the written summary portion.

Exhibit 14: Airport Environs Overlay Districts & Noisy Comments - Valley Wide - September 2021

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.

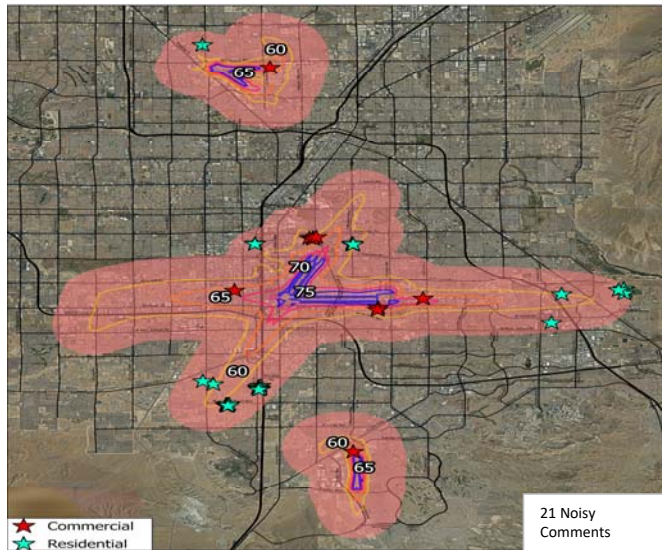


Exhibit 15: Noisy Comments - LAS Detail - September 2021

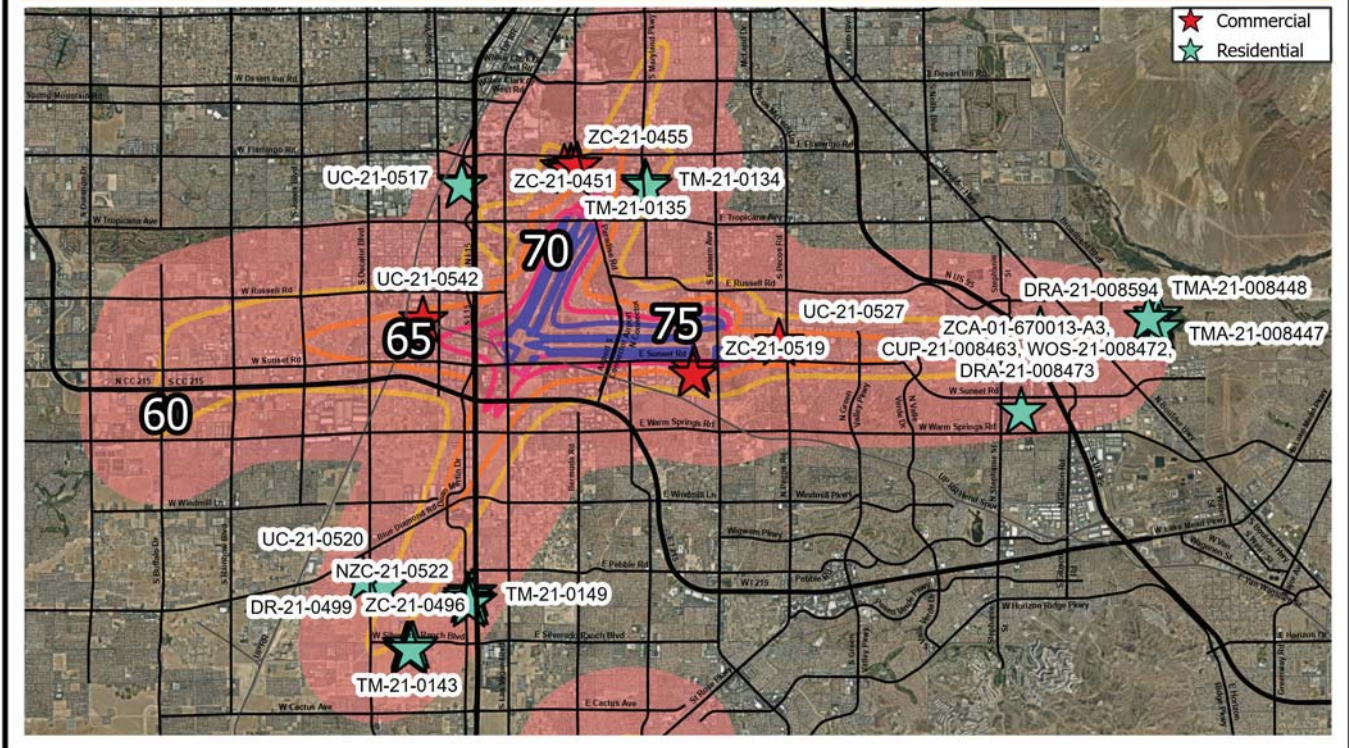


Exhibit 16: Noisy Comments - HND Detail - September 2021

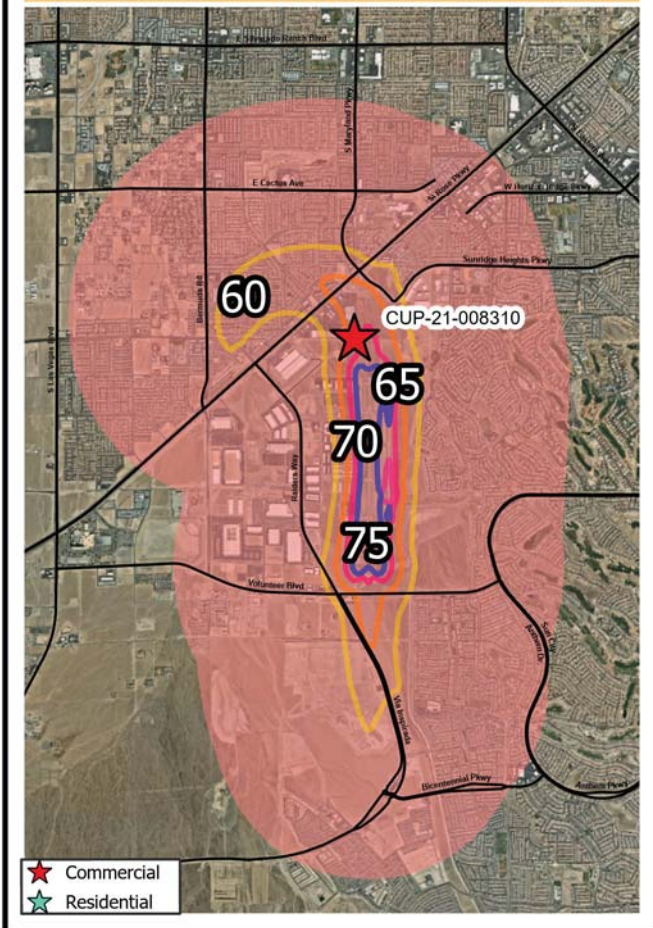


Exhibit 17: Noisy Comments - VGT Detail - September 2021

