

MEMORANDUM

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Director

DEPARTMENT OF AVIATION

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TO: DISTRIBUTION

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

SUBJECT: APRIL THROUGH JUNE 2022 COMPLAINT AND LAND USE REVIEW REPORTS

DATE: JULY 20, 2022

Attached for your review are the Clark County Department of Aviation's (CCDOA) Monthly Noise Complaint and Land Use Review Reports for April through June 2022. Please note the following airport abbreviations: **Harry Reid 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**. **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

April 2022: 175 total complaints - a 39% increase from 2021 and a 349% increase from 2020. On average, each caller (or household) issued 7.0 calls. The most calls received from one household totaled 77.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Enterprise** communities issued 163 calls (93%). This community is typically impacted by aircraft departing to the south (from Runway 19L and Runway 19R).

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

Repeat Caller Impact: One household issued 44% of the total calls.

Calls by Operation - (Exhibit 2)

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

- 91% were due to departures to the south from Runways 19L and 19R (84% from two households).

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

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

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

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

Overall: 470 daily *departures* – a 37% increase from 2021 and 255% increase from 2020.

- 44% of departures were to the west, 42% north, 8% east, and 6% south.

464 daily *arrivals* – a 36% increase from 2021 and 251% increase from 2020.

- 71% of arrivals were from the east, 23% south, 6% north, and 1% west.

Daytime: 355 daily *departures* – a 27% increase from 2021 and 215% increase from 2020.

- 42% of departures were to the west, 41% north, 10% east, and 8% south.

379 daily *arrivals* – a 28% increase from 2021 and a 219% increase from 2020.

- 70% of arrivals were from the east, 24% south, 6% north, and 1% west.

Nighttime: 115 daily *departures* – a 81% increase from 2021 and 493% increase from 2020.

- 52% of departures were to the west, 46% north, 1% south, and 1% east.

84 daily *arrivals* – a 93% increase from 2021 and a 539% increase from 2020.

- 79% of arrivals were from the east, 17% south, and 4% north.

Daytime vs. Nighttime: Approximately 76% 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:** 131 daily *departures* – a 25% increase from 2021 and 520% increase from 2020.
▪ 43% of departures were to the north, 42% south, 10% east, and 5% west.
128 daily *arrivals* – a 23% increase from 2021 and 570% increase from 2020.
▪ 38% of arrivals were from the north, 38% south, 22% east, and 2% west.
- Daytime:** 123 daily *departures* – a 27% increase from 2021 and 612% increase from 2020.
▪ 43% of departures were to the north, 41% south, 10% east, and 5% west.
122 daily *arrivals* – a 24% increase from 2021 and 597% increase from 2020.
▪ 38% of arrivals were from the north, 37% south, 23% east, and 2% west.
- Nighttime:** 8 daily *departures* – a 6% decrease from 2021 and 115% increase from 2020.
▪ 48% of departures were to the north, 48% south, 3% west, and 2% east.
6 daily *arrivals* – no change from 2021 and 269% increase from 2020.
▪ 44% of arrivals were from the north, 41% south, and 14% east.

Daytime vs. Nighttime: Approximately 94% of all *departures* and 95% of all *arrivals* occurred during the daytime hours.

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

- Tropicana:** 60 daily *departures* – a 70% increase from 2021 and not available from 2020.
- Charleston:** 59 daily *arrivals* – a 77% increase from 2021 and not available from 2020.
- Strip:** 86 daily *touch and go's* – a 19% decrease from 2021 and not available from 2020.
- Daytime vs. Nighttime:** 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 61% 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 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 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 0% of the daily traffic.

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

Primary: In 2022, 44% departed to the **west** (from LAS's primary departure runways). This figure was 56% in 2021 and 80% in 2020.

Secondary: In 2022, 6% departed to the **south** (from LAS's secondary departure runways). This figure was 9% in 2021 and 5% in 2020.

Alternate 1: In 2022, 42% departed to the **north** (from LAS's alternate departure runways). This figure was 28% in 2021 and 13% in 2020.

Alternate 2: In 2022, 8% departed to the **east** (from LAS's alternate departure runways). This figure was 8% in 2021 and 1% in 2020.

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

SVHS: In 2022, 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 left-hand turn were within 0.3 NM of **Sierra Vista High School** (SVHS). This figure was 98% in 2021 and 95% in 2020.

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 2022, 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 right-hand turn were within 0.3 NM of the intersection of **Peace Way & Summers Shade Street**. This figure was 99% in 2021 and 98% in 2020.

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 2022, 100% 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 86% in 2021 and 88% in 2020.

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 2022, 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 95% in 2021 and 72% in 2020.

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 2022, 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 2021 and 87% in 2020.

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 2022, 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 2021 and there were no touring helicopter operations in April 2020.

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 2021 and there were no touring helicopter operations in April 2020.

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, 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 2021 and there were no touring helicopter operations in April 2020.

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: 144 applications were reviewed (a 41% increase from 2021), with 11 applications (8%) issued at least one comment.

Henderson: 17 applications were reviewed (a 43% decrease from 2021), with 1 application (6%) issued at least one comment.

Las Vegas: 36 applications were reviewed (12% decrease from 2021), with 0 applications (0%) issued at least one comment.

North Las Vegas: 4 applications were reviewed (a 83% decrease from 2021), with 0 applications (0%) issued at least one comment.

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

Clark County: 13 comments were issued, with 7 comments issued for “noise” concerns. 2 misc. comments were issued, regarding property access, wall removal, landscaping, and the RPZ.

Henderson: 1 comment was 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: 254 dwelling units were proposed in the commented applications, just outside the AEOD.

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

Las Vegas: 0 comments were issued.

North Las Vegas: 0 comments were issued.

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, (with the exception of departures to the north), fleet mix, and gate compliance. The increase in departures to the north were tied to the FAA’s discretionary use of Runways 01L and 01R to relive increased traffic capacity.

May 2021: 149 total complaints - a 41% increase from 2021 and a 521% increase from 2020. On average, each caller (or household) issued 7.8 calls. The most calls received from one household totaled 73.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Enterprise** communities issued 132 calls (89%). (See April 2022 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 49% of the total calls.

Calls by Operation - (Exhibit 2)

- LAS:** 94% of the total calls were due to **LAS** fixed-wing operations.
- 85% were due to departures to the south from Runways 19L and 19R (89% from two households).
- VGT:** 2% of the total calls received were due to **VGT** fixed-wing operations.
- HND:** 3% of the total calls received were due to **HND** fixed-wing operations (80% from one household).
- Helis:** 1% of the total calls received were due to **helicopter** operations.

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

Overall: 488 daily *departures* – a 24% increase from 2021 and 259% increase from 2020.

- 46% of departures were to the north, 44% west, 5% east, and 4% south.

481 daily *arrivals* – a 25% increase from 2021 and 249% increase from 2020.

- 72% of arrivals were from the east, 23% south, 4% north, and 1% west.

Daytime: 375 daily *departures* – a 17% increase from 2021 and 193% increase from 2020.

- 48% of departures were to the north, 41% west, 6% east, and 5% south.

390 daily *arrivals* – a 19% increase from 2021 and a 196% increase from 2020.

- 72% of arrivals were from the east, 23% south, 4% north, and 1% west.

Nighttime: 113 daily *departures* – a 52% increase from 2021 and 1,386% increase from 2020.

- 54% of departures were to the west, 43% north, 2% east, and 1% south.

91 daily *arrivals* – a 67% increase from 2021 and a 1,410% increase from 2020.

- 75% of arrivals were from the east, 20% south, and 4% north.

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: 146 daily *departures* – a 19% increase from 2021 and 300% increase from 2020.

- 51% of departures were to the north, 38% south, 6% east, and 5% west.

142 daily *arrivals* – a 14% increase from 2021 and 335% increase from 2020.

- 37% of arrivals were from the north, 36% south, 25% east, and 1% west.

Daytime: 136 daily *departures* – a 19% increase from 2021 and 345% increase from 2020.

- 51% of departures were to the north, 38% south, 6% east, and 5% west.

135 daily *arrivals* – a 13% increase from 2021 and 354% increase from 2020.

- 37% of arrivals were from the north, 36% south, 26% east, and 1% west.

Nighttime: 11 daily *departures* – a 19% increase from 2021 and 77% increase from 2020.

- 51% of departures were to the north, 44% south, 2% west, and 2% east.

7 daily *arrivals* – a 34% increase from 2021 and 145% increase from 2020.

- 43% of arrivals were from the north, 43% south, and 13% east.

Daytime vs. Nighttime: Approximately 93% of all *departures* and 95% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 61 daily *departures* – a 72% increase from 2021 and not available from 2020.

Charleston: 60 daily *arrivals* – a 66% increase from 2021 and not available from 2020.

Strip: 113 daily *touch and go's* – a 5% increase from 2021 and not available from 2020.

Daytime vs. Nighttime: Approximately 76% of all helicopter tour operations occurred during the daytime hours.

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

- Heavies:** *Very large* air carrier turbine-driven aircraft (those weighing 300,000 lbs. or more) accounted for 1% of the daily traffic.
- Large:** *Large* air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 59% 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 22% 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 2022, 44% departed to the *west* (from LAS's primary departure runways). This figure was 58% in 2021 and 67% in 2020.
- Secondary:** In 2022, 4% departed to the *south* (from LAS's secondary departure runways). This figure was 8% in 2021 and 11% in 2020.
- Alternate 1:** In 2022, 47% departed to the *north* (from LAS's alternate departure runways). This figure was 26% in 2021 and 22% in 2020.
- Alternate 2:** In 2022, 5% departed to the *east* (from LAS's alternate departure runways). This figure was 7% in 2021 and <1% in 2020.

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

- SVHS:** In 2022, 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 98% in 2021 and 96% in 2020. (See April 2022 synopsis for specific location of the SVHS gate.)
- Peace:** In 2022, 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 2021 and 98% in 2020. (See April 2022 synopsis for specific location of the Peace gate.)

- Pebble:** In 2022, 100% 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 85% in 2021 and 91% in 2020. (See April 2022 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2022, 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 97% in 2021 and 84% in 2020. (See April 2022 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2022, 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 2021 and 98% in 2020. (See April 2022 synopsis for specific location of the Boulder Hwy. gate.)
- Eastern:** In 2022, 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 2021 and 100% in 2020. (See April 2022 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2022, 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 2021 and 100% in 2020. (See April 2022 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2022, 94% 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 100% in 2021 and 67% in 2020. (See April 2022 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 110 applications were reviewed (a 25% decrease from 2021), with 13 applications (12%) issued at least one comment.

Henderson: 87 applications were reviewed (a 61% increase from 2021), with 8 applications (9%) issued at least one comment.

Las Vegas: 46 applications were reviewed (48% increase from 2021), with 1 application (2%) issued at least one comment.

North Las Vegas: 18 applications were reviewed (a 13% increase from 2021), with 4 applications (22%) issued at least one comment.

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

Clark County: 13 comments were issued, with 9 comments issued for “noise” concerns.

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

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

North Las Vegas: 4 comments were issued, with all 4 issued for “noise” concerns.

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

Clark County: 506 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 87 dwelling units were proposed in the commented applications, within the AEOD. 566 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 0 comments were issued for “noise” concerns.

North Las Vegas: 276 dwelling units were proposed in the commented applications, 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, (with the exception of departures to the north), fleet mix, and gate compliance. The increase in departures to the north were tied to the FAA’s discretionary use of Runways 01L and 01R to relive increased traffic capacity.

June 2021: 89 total complaints – a 19% increase from 2021 and a 287% increase from 2020. On average, each caller (or household) issued 4.2 calls. The most calls received from one household totaled 39.

Calls by Community - (Exhibits 1 and 3)

Majority (more than 50%): The **Enterprise** communities issued 81 calls (91%). (See April 2022 synopsis of typical aircraft overflight impacts on this community.)

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

Repeat Caller Impact: One household issued 44% of the total calls.

Calls by Operation - (Exhibit 2)

LAS: 97% of the total calls were due to **LAS** fixed-wing operations.
▪ 88% were due to departures to the south from Runways 19L and 19R (50% from one household).

VGT: 0% of the total calls received were due to **VGT** fixed-wing operations (92% from one household).

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

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

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

- Overall:** 514 daily *departures* – a 21% increase from 2021 and 149% increase from 2020.
▪ 62% of departures were to the west, 20% north, 14% east, and 5% south.
507 daily *arrivals* – a 23% increase from 2021 and 144% increase from 2020.
▪ 75% of arrivals were from the east, 11% north, 9% south, and 5% west.
- Daytime:** 400 daily *departures* – a 21% increase from 2021 and 108% increase from 2020.
▪ 58% of departures were to the west, 21% north, 15% east, and 6% south.
406 daily *arrivals* – a 21% increase from 2021 and 108% increase from 2020.
▪ 73% of arrivals were from the east, 11% north, 10% south, and 6% west.
- Nighttime:** 115 daily *departures* – a 21% increase from 2021 and 690% increase from 2020.
▪ 77% of departures were to the west, 15% north, 7% east, and 1% south.
101 daily *arrivals* – a 33% increase from 2021 and 681% increase from 2020.
▪ 79% of arrivals were from the east, 11% north, 7% south, and 3% west.

Daytime vs. Nighttime: Approximately 78% of all *departures* and 80% of all *arrivals* occurred during the daytime hours.

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

- Overall:** 120 daily *departures* – a 9% decrease from 2021 and 68% increase from 2020.
▪ 56% of departures were to the south, 21% north, 14% east, and 9% west.
118 daily *arrivals* – an 8% decrease from 2021 and a 74% increase from 2020.
▪ 58% of arrivals were from the north, 19% east, 14% south, and 8% west.
- Daytime:** 112 daily *departures* – a 7% decrease from 2021 and 80% increase from 2020.
▪ 55% of departures were to the south, 21% north, 15% east, and 9% west.
111 daily *arrivals* – an 8% decrease from 2021 and a 78% increase from 2020.
▪ 58% of arrivals were from the north, 19% east, 14% south, and 8% west.
- Nighttime:** 9 daily *departures* – a 29% decrease from 2021 and 13% decrease from 2020.
▪ 68% of departures were to the south, 15% north, 12% west, and 5% east.
7 daily *arrivals* – no change from 2021 and 22% increase from 2020.
▪ 58% of arrivals were from the north, 24% east, 9% south, and 8% west.

Daytime vs. Nighttime: Approximately 93% of all *departures* and 94% of all *arrivals* occurred during the daytime hours.

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

Tropicana: 60 daily *departures* – a 48% increase from 2021 and a 722% increase from 2020.

Charleston: 59 daily *arrivals* - a 51% increase from 2021 and a 780% increase from 2020.

Strip: 80 daily *touch and go's* - a 31% decrease from 2021 and a 242% increase from 2020.

Daytime vs. Nighttime: Approximately 81% of all helicopter tour operations occurred during the daytime hours.

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

- Heavies:** *Very large* air carrier turbine-driven aircraft (those weighing 300,000 lbs. or more) accounted for 1% of the daily traffic.
- Large:** *Large* air carrier turbine-driven aircraft (those weighing more than 75,000 lbs. and less than 300,000 lbs.) accounted for 65% of the daily traffic.
- Medium:** *Medium* turbine-driven aircraft (those weighing more than 41,000 lbs. and less than 75,000 lbs.) accounted for 4% of the daily traffic.
- Small:** *Small* turbine-driven aircraft (those weighing 41,000 lbs. or less) accounted for 8% of the daily traffic.
- Military:** *Military* turbine-driven aircraft accounted for 0% of the daily traffic.
- Non-Jet:** *Piston-driven* aircraft and unassigned aircraft types accounted for 4% of the daily traffic.
- Helos:** *Touring helicopters* accounted for 18% 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 2022, 62% departed to the *west* (from LAS's primary departure runways). This figure was 65% in 2021 and 69% in 2020.
- Secondary:** In 2022, 5% departed to the *south* (from LAS's secondary departure runways). This figure was 5% in 2021 and 17% in 2020.
- Alternate 1:** In 2022, 20% departed to the *north* (from LAS's alternate departure runways). This figure was 4% in 2021 and 9% in 2020.
- Alternate 2:** In 2022, 14% departed to the *east* (from LAS's alternate departure runways). This figure was 26% in 2021 and 5% in 2020.

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

- SVHS:** In 2022, 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 98% in 2021 and 98% in 2020. (See April 2022 synopsis for specific location of the SVHS gate.)
- Peace:** In 2022, 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 2021 and 98% in 2020. (See April 2022 synopsis for specific location of the Peace gate.)

- Pebble:** In 2022, 100% 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 93% in 2021 and 95% in 2020. (See April 2022 synopsis for specific location of the Pebble gate.)
- UNLV:** In 2022, 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 96% in 2021 and 93% in 2020. (See April 2022 synopsis for specific location of the UNLV gate.)
- Boulder:** In 2022, 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 2021 and 99% in 2020. (See April 2022 synopsis for specific location of the Boulder Hwy. gate.)
- Eastern:** In 2022, 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 2021 and 99% in 2020. (See April 2022 synopsis for specific location of the Eastern gate.)
- Hollywood:** In 2022, 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 2021 and 98% in 2020. (See April 2022 synopsis for specific location of the Hollywood gate.)
- Stratosphere:** In 2022 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 2021 and 99% in 2020. (See April 2022 synopsis for specific location of the Stratosphere gate.)

Land Use Application Reviews & Comments – (Exhibit 10)

Clark County: 133 applications were reviewed (a 27% increase from 2021), with 17 applications (13%) issued at least one comment.

Henderson: 20 applications were reviewed (a 74% decrease from 2021), with 2 applications (10%) issued at least one comment.

Las Vegas: 37 applications were reviewed (21% decrease from 2021), with 2 applications (5%) issued at least one comment.

North Las Vegas: 12 applications were reviewed (a 0% change from 2021), with 2 applications (17%) issued at least one comment.

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

Clark County: 17 comments were issued, with 12 comments issued for “noise” concerns.

Henderson: 3 comments were issued, with 1 comment issued for “noise” concerns.

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

North Las Vegas: 2 comments were issued, with both issued for “noise” concerns.

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

Clark County: 693 dwelling units were proposed in the commented applications, just outside the AEOD.

Henderson: 104 dwelling units were proposed in the commented applications, just outside the AEOD.

Las Vegas: 0 comments were issued for “noise” concerns.

North Las Vegas: 54 dwelling units were proposed in the commented applications, 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.

Other Notable Issues

Electric Daisy Carnival: On May 20 through 22, 2022, this concert event was held at the Las Vegas Motor Speedway, with a total attendance in excess of 400,000 people. Helicopter tour operators provided almost 1,100 total passenger flights, ferrying approximately 6,800 total passengers to and from the event over the three day period, resulting in zero noise complaints issued.

Northbound Departure Increase: Increased traffic capacity coupled with numerous days of winds in excess of 5 knots from the north resulted in the FAA utilizing Runway 01R for departures. Wind speed and direction typically determine runway use safety and efficiency.

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

Attachments

Airport Noise Report

July 20, 2022

Page 16 of 37

Distribution:

Commissioner Gibson, Chair	Sean Roebuck
Commissioner Jones, Vice-Chair	Bruce Daugherty
Commissioner Kirkpatrick	Chris Jones
Commissioner McCurdy II	Christine Crews
Commissioner Miller	Tina Frias
Commissioner Naft	Roben Armstrong
Commissioner Segerblom	Scott Kichline
Yolanda King	Phillip Detmer
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* - April 2022

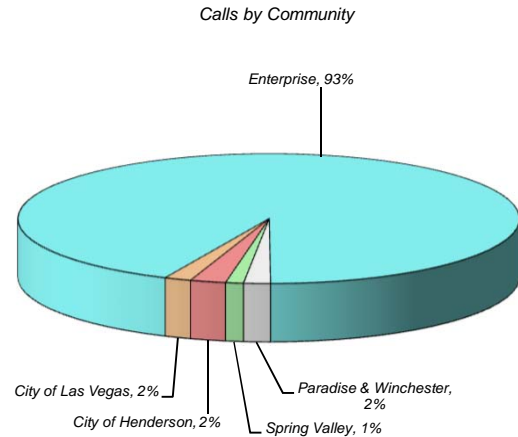
Community	No. of Calls in 2022	No. of Callers in 2022	No. of Calls in 2021	No. of Calls in 2020
City of Boulder City	4	3	3	
City of Henderson	3	3	2	1
City of Las Vegas				
City of North Las Vegas				
Enterprise	163	15	109	2
Lone Mountain				
Paradise & Winchester	3	2	6	
Spring Valley	2	2	6	36
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	175	25	126	39

Difference between 2022 and 2021 Total Calls: 39%

Difference between 2022 and 2020 Total Calls: 349%

Average Number of Calls per Caller: 7.0

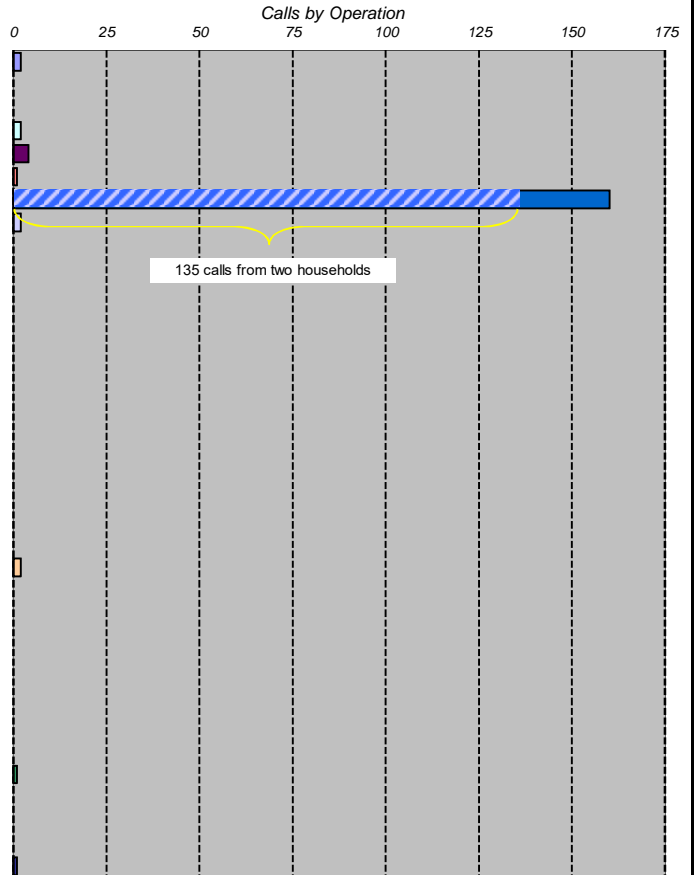
Most calls received from one household: 77



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

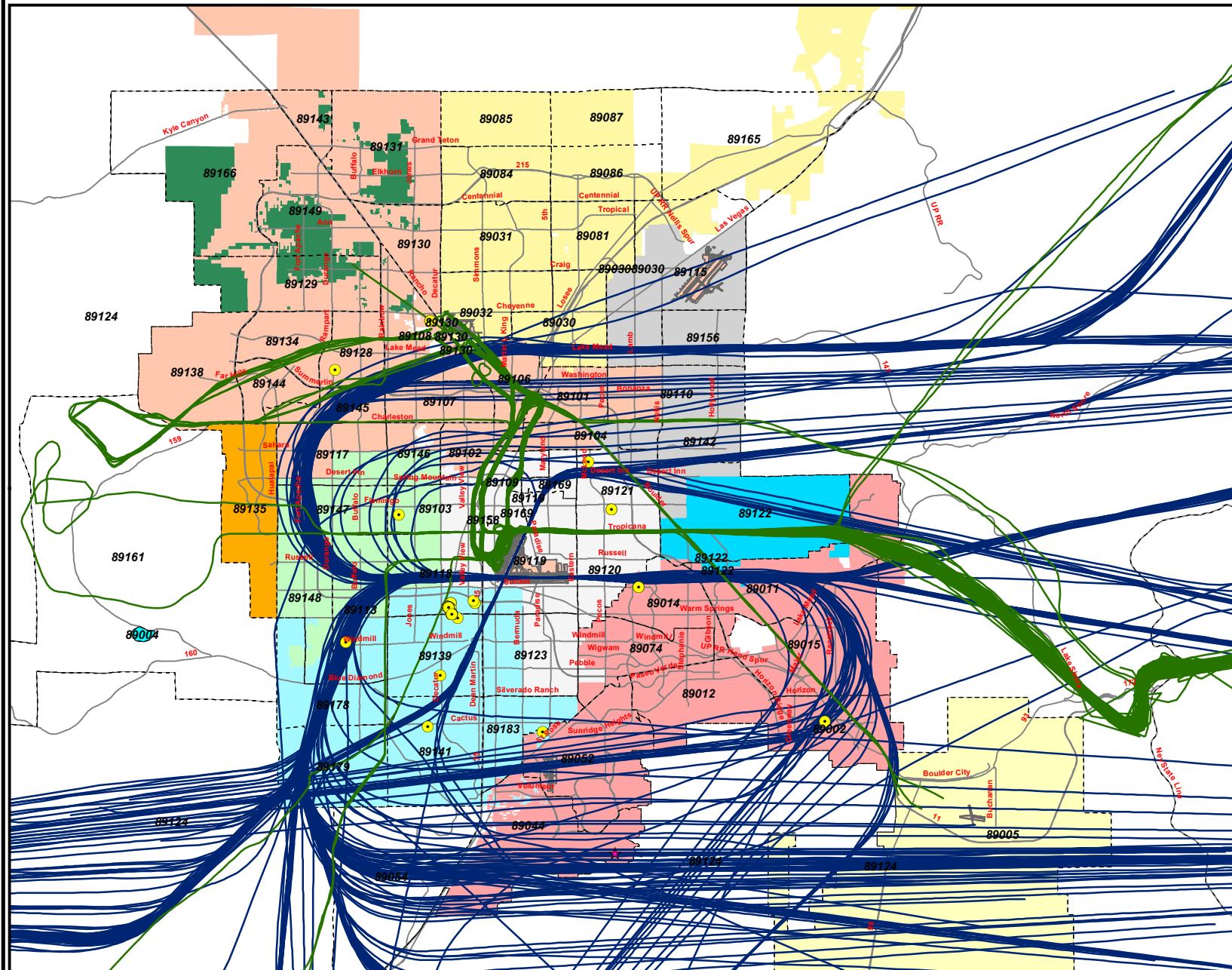
Exhibit 2: Noise Complaint Calls by Type of Operation - April 2022

Operation	No. of Calls in 2022	Percent of Overall Total	No. of Calls in 2021	No. of Calls in 2020
LAS 01R/L Arrivals	2	1.1%	1	
LAS 08R/L Arrivals				
LAS 19R/L Arrivals				
LAS 26R/L Arrivals	2	1.1%	1	
LAS 01R/L Departures	4	2.3%	11	18
LAS 08R/L Departures	1	0.6%	2	
LAS 19R/L Departures	160	91.4%	107	2
LAS 26R/L Departures	2	1.1%	3	18
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	171	97.7%	125	38
VGT 07 Arrivals				
VGT 12R/L Arrivals				
VGT 25 Arrivals				
VGT 30R/L Arrivals				
VGT 07 Departures				
VGT 12R/L Departures				
VGT 25 Departures				
VGT 30R/L Departures				
VGT Run-ups				
VGT GA	2	1.1%		1
VGT Other				
VGT Total	2	1.1%	0	1
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	1	0.6%		
HND Other				
HND Total	1	0.6%	0	0
Helicopters**	1	0.6%	1	
Overall Total	175	100%	126	39



** 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 - Apr 2022



Legend

April 2022
Total Complaints: 175

- Aircraft Complaints Received 174 Mapped 174
- ★ 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

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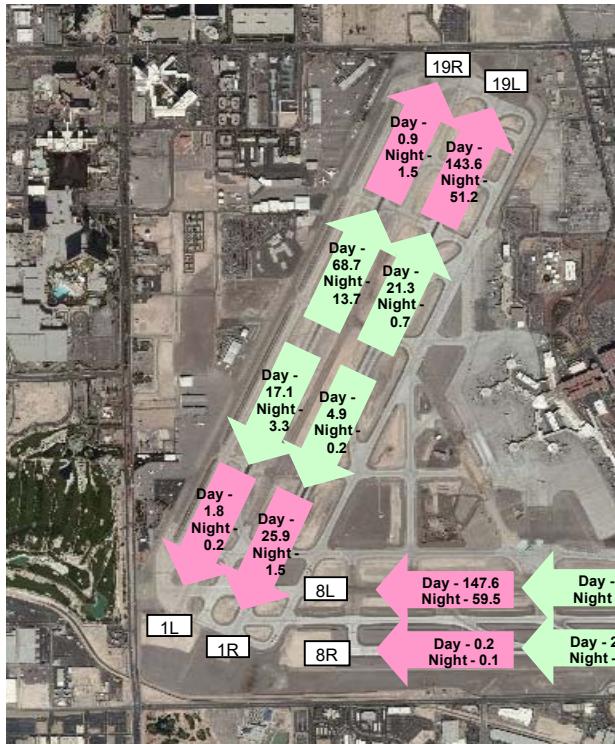
7/13/2022

Note:
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the data displayed hereon.

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Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - April 2022



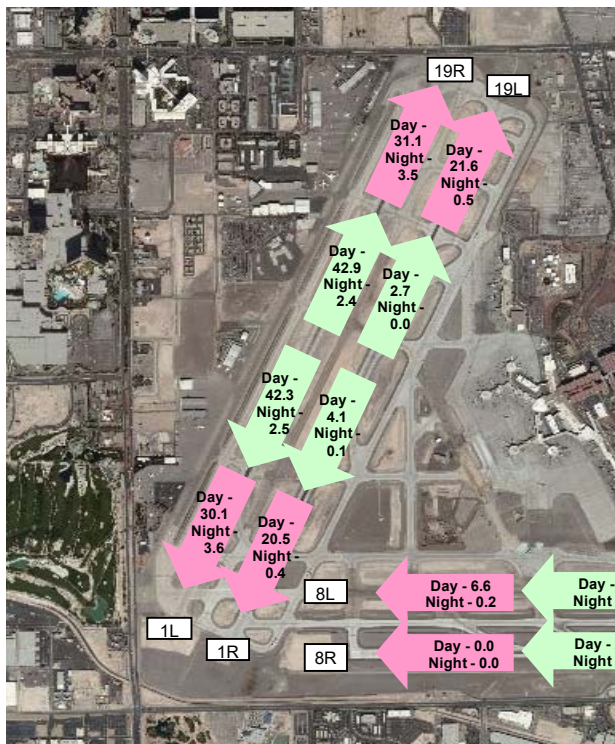
Year	2022		2021		2020	
Daytime Departures	355	76%	279	81%	113	85%
Nighttime Departures	115	24%	64	19%	19	15%
Total Departures	470	100%	343	100%	132	100%

Daytime Arrivals	379	82%	296	87%	119	90%
Nighttime Arrivals	84	18%	44	13%	13	10%
Total Arrivals	464	100%	340	100%	132	100%

Growth	Overall	Daytime	Nighttime
Depts. 2022 vs 2021	37%	27%	81%
Depts. 2022 vs 2020	255%	215%	493%
Arrivals 2022 vs 2021	36%	28%	93%
Arrivals 2022 vs 2020	251%	219%	539%

* 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** - April 2022



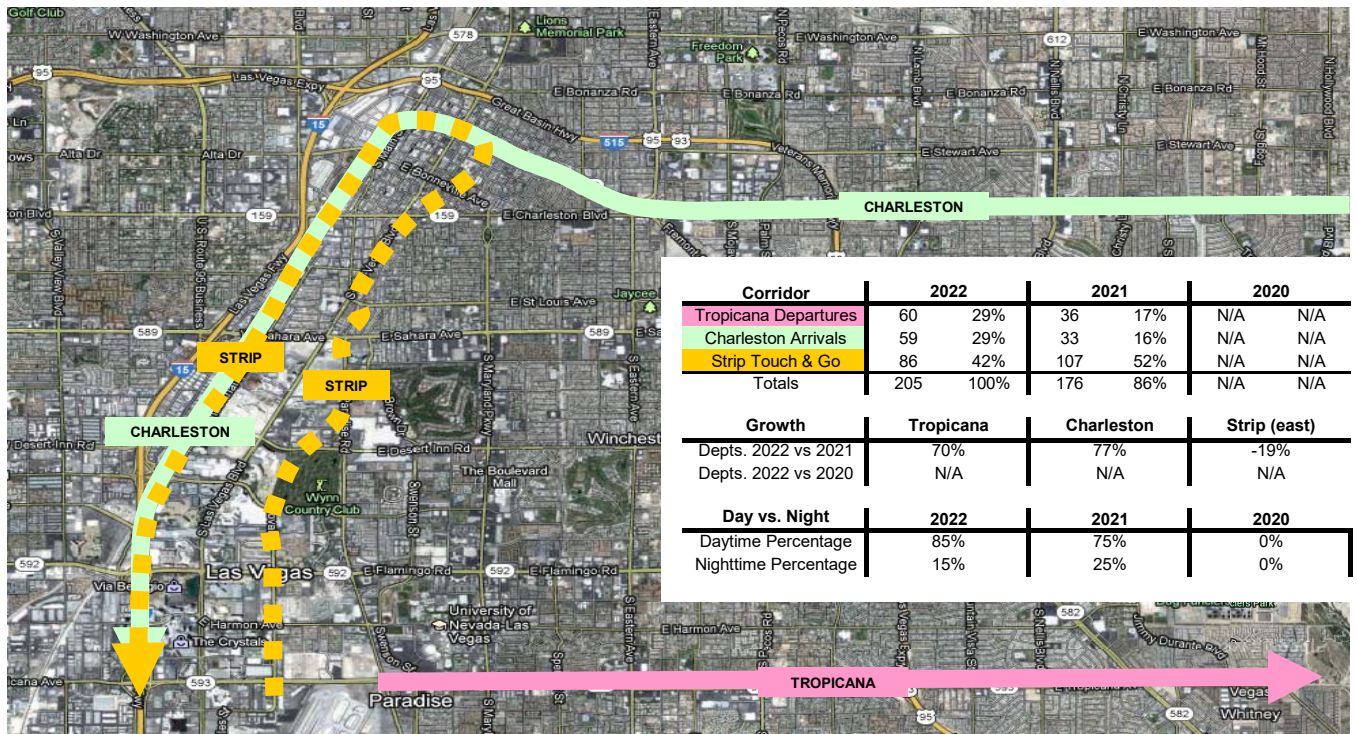
Year	2022		2021		2020	
Daytime Departures	123	94%	96	92%	17	82%
Nighttime Departures	8	6%	9	8%	4	18%
Total Departures	131	100%	105	100%	21	100%

Daytime Arrivals	122	95%	98	94%	18	92%
Nighttime Arrivals	6	5%	6	6%	2	8%
Total Arrivals	128	100%	104	100%	19	100%

Growth	Overall	Daytime	Nighttime
Depts. 2022 vs 2021	25%	27%	-6%
Depts. 2022 vs 2020	520%	612%	115%
Arrivals 2022 vs 2021	23%	24%	0%
Arrivals 2022 vs 2020	570%	597%	269%

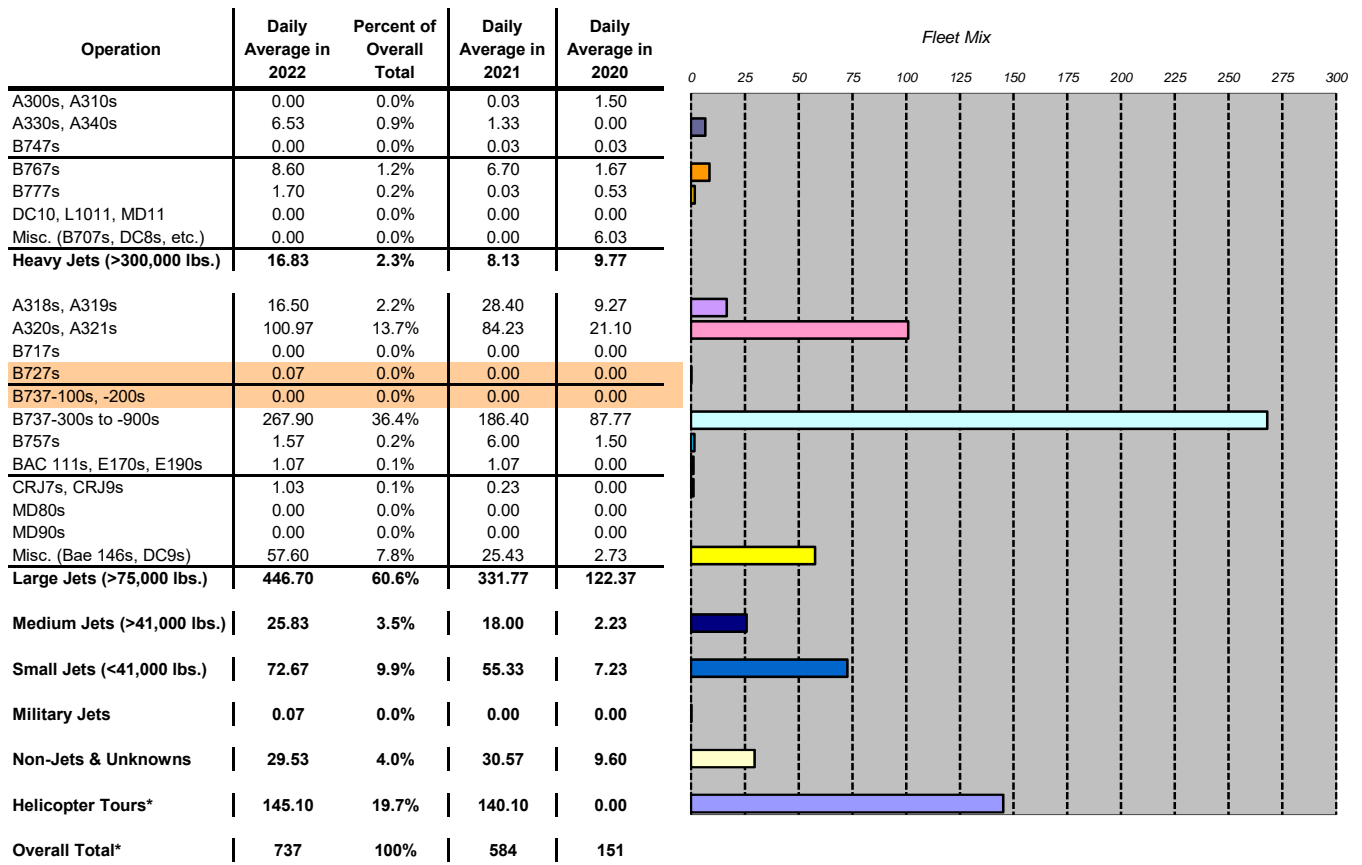
** Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - April 2022



* Helicopter Tours: Note that some operations may originate from facilities besides LAS.

Exhibit 7: LAS Aircraft Arrival Fleet Mix** - April 2022



** Overall Total: Note that operation type and runway use counts are estimated by Harris Corp. Environmental/Vue 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* - April 2022 to 2020

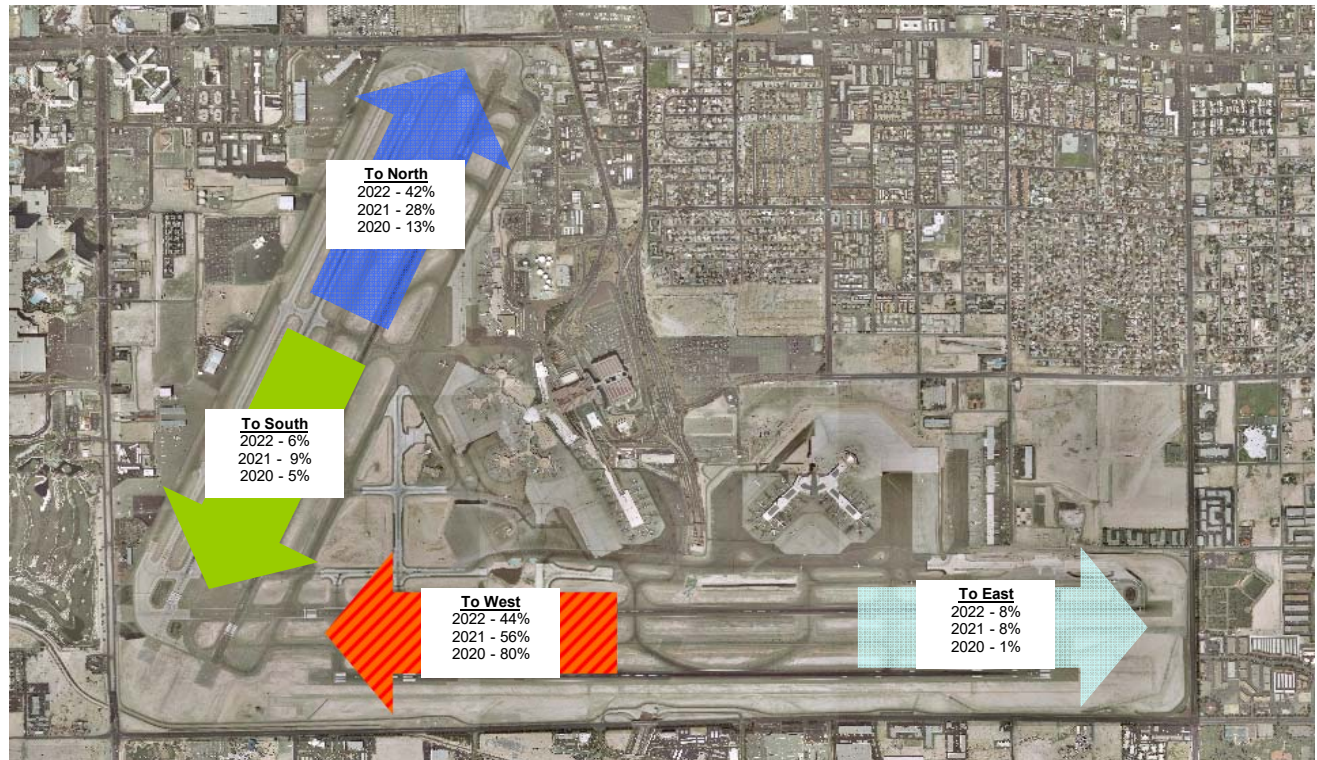
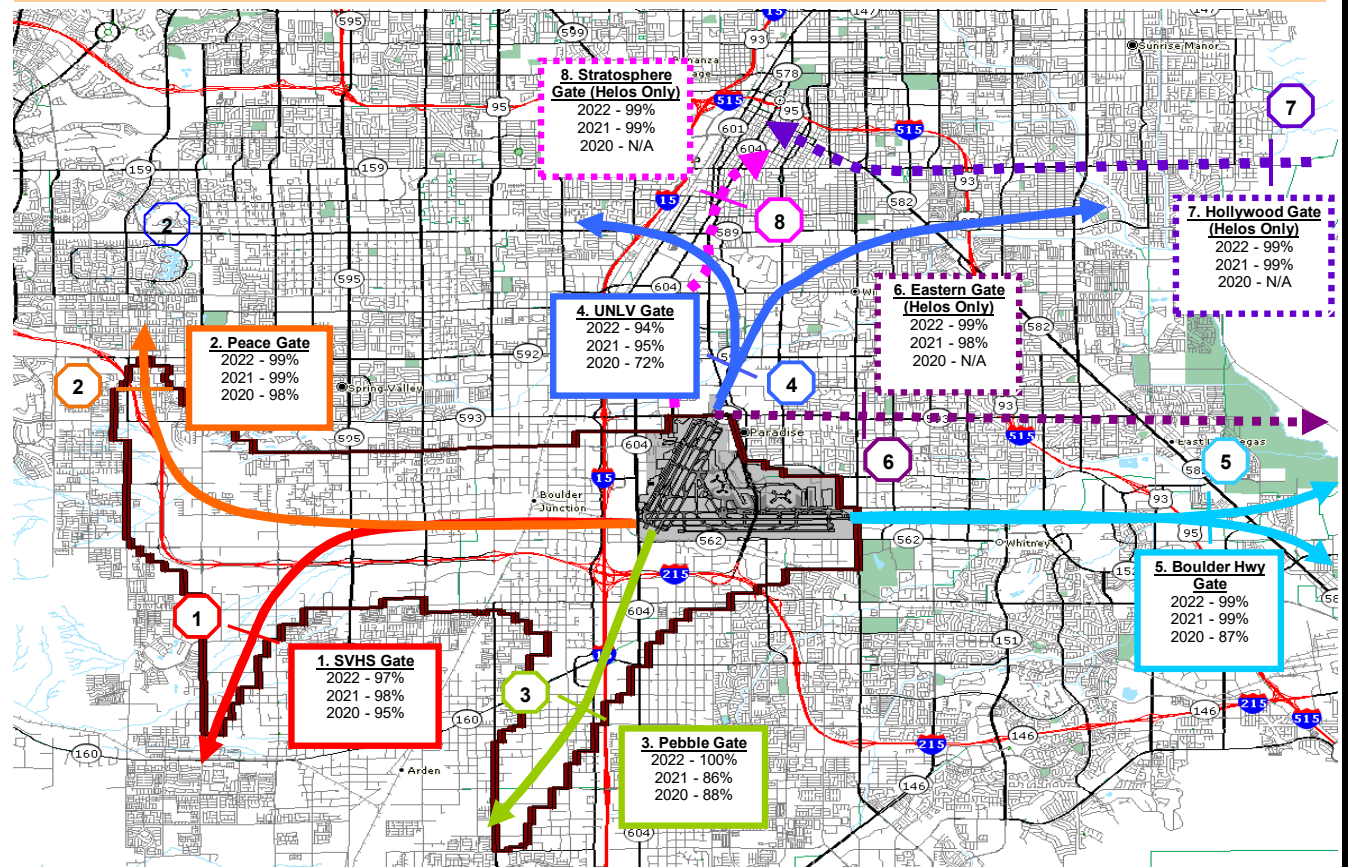


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - April 2022



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

Exhibit 10: Land Use Application Reviews & Comments - April 2022

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
No. of Land Use Applications Reviewed	144	17	36	4	201	197	160
No. of Applications where CCDOA Issued a Comment	11	1	0	0	12	5	9
Percent of Applications where Comment Issued	8%	6%	0%	0%	6%	3%	6%

Exhibit 11: Land Use Application Comments by Airport Concern - April 2022

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Deed Restrictions	0	0	0	0	0	0	0
Height-Penetrates Part 77 100:1 Surfaces >200'	4	1	0	0	5	4	3
Height-Penetrates Part 77 PATH-C Surfaces*	0	0	0	0	0	0	0
Helipad/Helipad	0	0	0	0	0	0	0
Noise-Commercial within AEOD**	3	0	0	0	3	1	0
Noise-Residential within the AEOD**	0	0	0	0	0	1	0
Noise-Residential Just Outside the AEOD**	4	0	0	0	4	3	7
Misc.-If applicable, detailed info. provided within the written summary	2	0	0	0	2	0	0
Total***	13	1	0	0	14	9	10

* 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* - April 2022

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Within the AEOD	0	0	0	0	0	4	0
Just Outside the AEOD	254	0	0	0	254	112	1,438

*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* - April 2022

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Recommend Denial	0	0	0	0	0	0	0
Opposed at Hearings	0	0	0	0	0	0	0

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

Exhibit 14: Airport Environs Overlay Districts & Noise Comments - Valley Wide - April 2022

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 Reid (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.

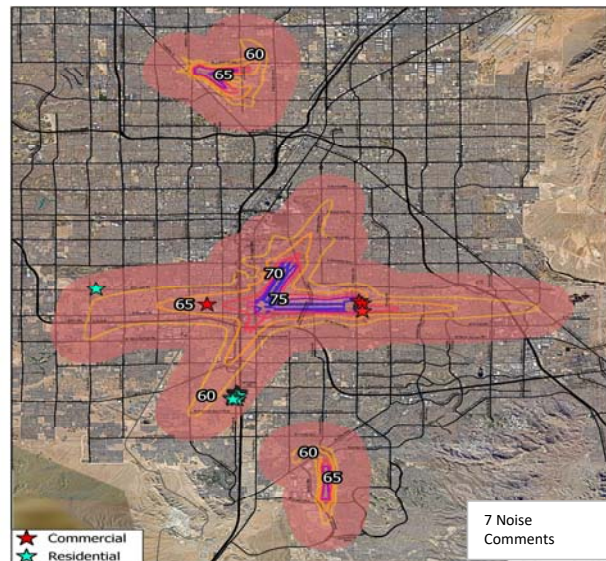


Exhibit 15: Noise Comments - LAS Detail - April 2022

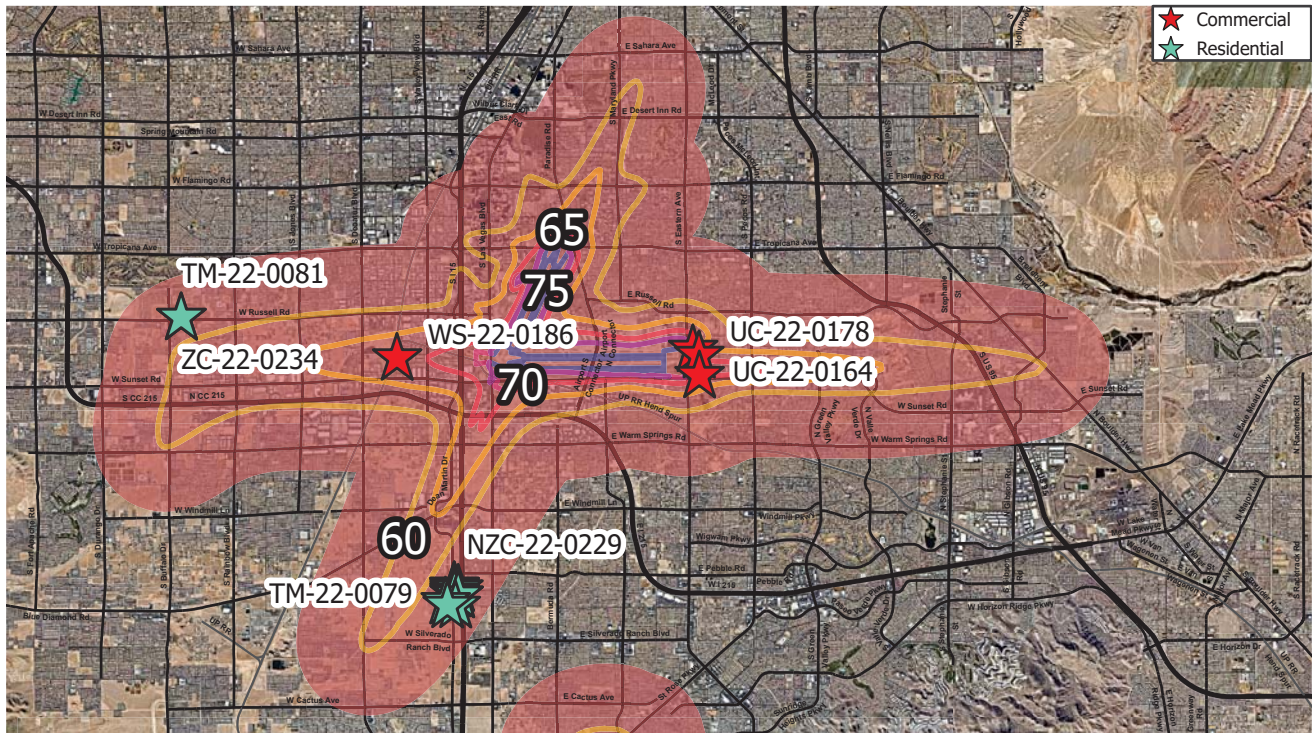


Exhibit 16: Noise Comments - HND Detail - April 2022

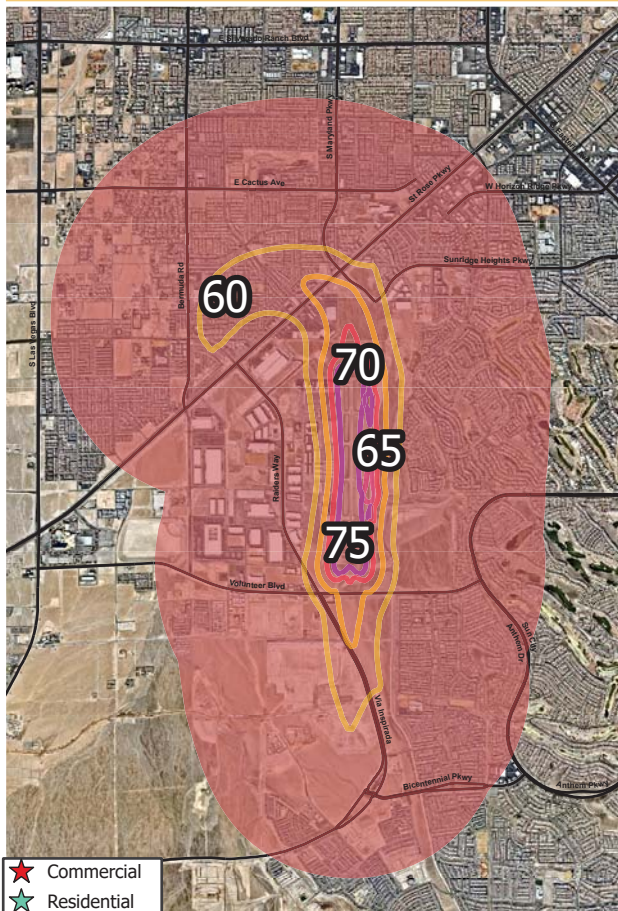


Exhibit 17: Noise Comments - VGT Detail - April 2022

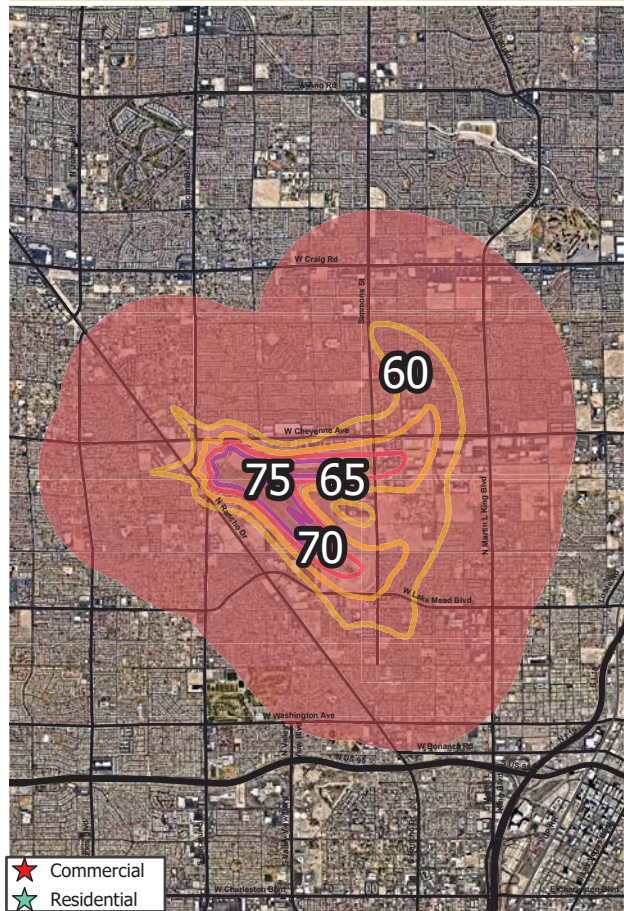


Exhibit 1: Noise Complaint Calls by Community* - May 2022

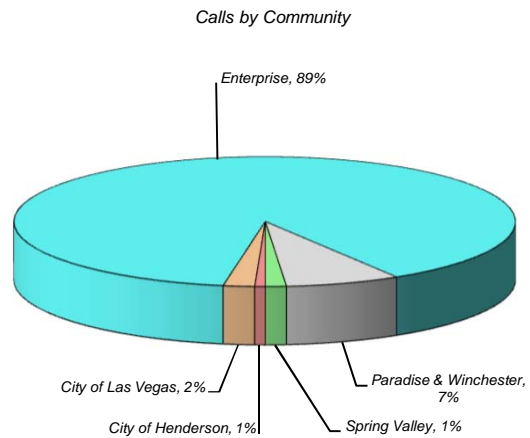
Community	No. of Calls in 2022	No. of Callers in 2022	No. of Calls in 2021	No. of Calls in 2020
City of Boulder City	1	1	5	1
City of Henderson	3	2	1	
City of Las Vegas				
City of North Las Vegas				
Enterprise	132	10	93	4
Lone Mountain				
Paradise & Winchester	11	4	1	1
Spring Valley	2	2	6	18
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	149	19	106	24

Difference between 2022 and 2021 Total Calls: 41%

Difference between 2022 and 2020 Total Calls: 521%

Average Number of Calls per Caller: 7.8

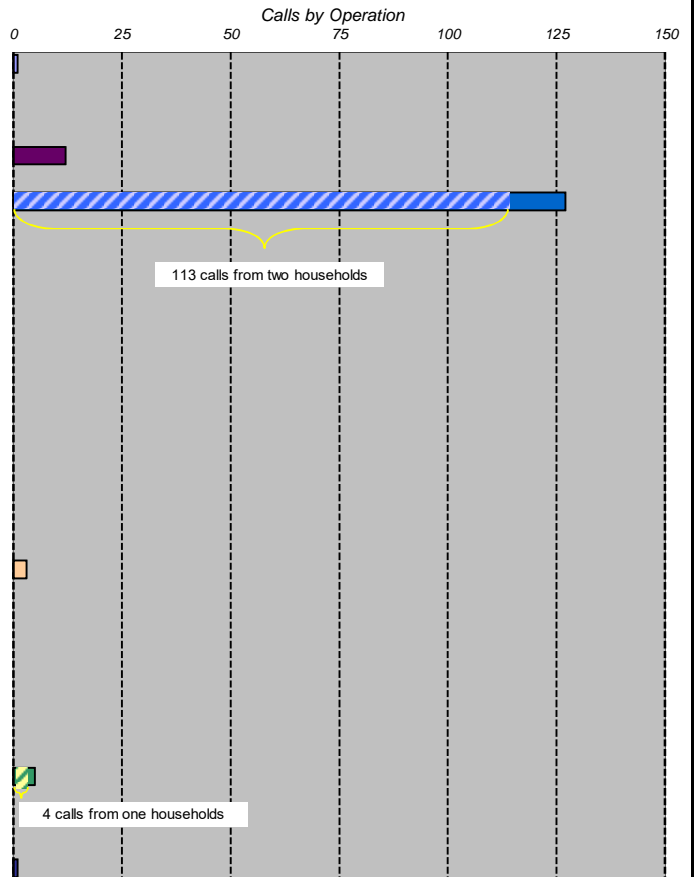
Most calls received from one household: 73



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

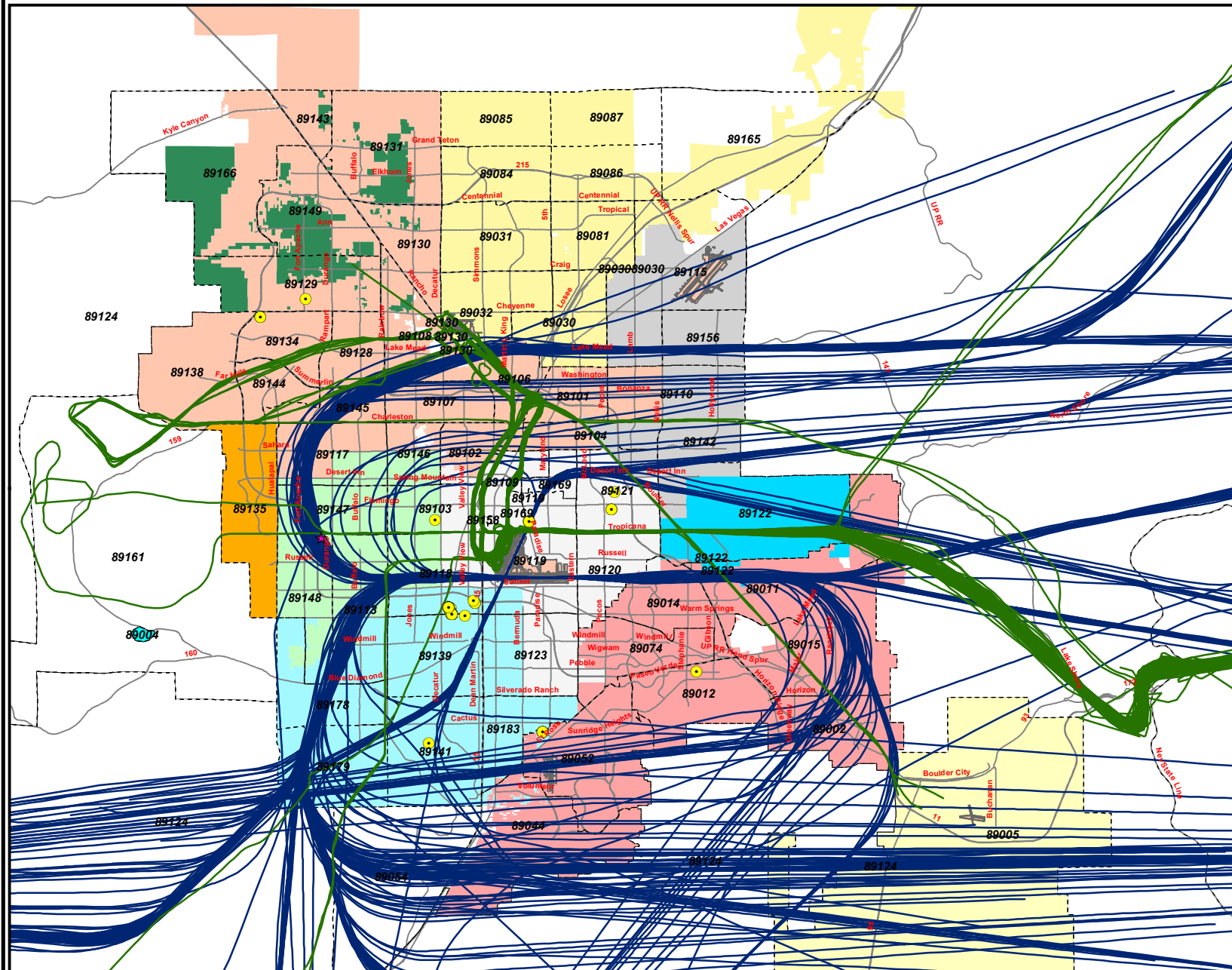
Exhibit 2: Noise Complaint Calls by Type of Operation - May 2022

Operation	No. of Calls in 2022	Percent of Overall Total	No. of Calls in 2021	No. of Calls in 2020
LAS 01R/L Arrivals	1	0.7%		
LAS 08R/L Arrivals				
LAS 19R/L Arrivals				
LAS 26R/L Arrivals				3
LAS 01R/L Departures	12	8.1%	7	16
LAS 08R/L Departures				
LAS 19R/L Departures	127	85.2%	90	
LAS 26R/L Departures			3	3
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	140	94.0%	100	22
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	2.0%		
VGT Other				
VGT Total	3	2.0%	0	0
HND 17R/L Arrivals				
HND 35R/L Arrivals				
HND 17R/L Departures				
HND 35R/L Departures				
HND Run-ups				
HND GA	5	3.4%	5	2
HND Other				
HND Total	5	3.4%	5	2
Helicopters**	1	0.7%	1	
Overall Total	149	100%	106	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 - May 2022



Legend

May 2022
Total Complaints: 149

- Aircraft Complaints Received 148 Mapped 148
- 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

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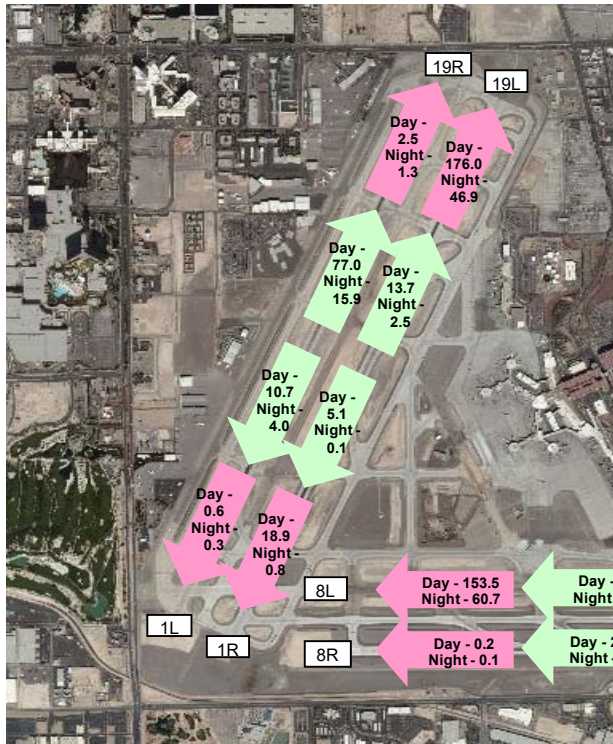
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7/13/2022

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the data displayed hereon.

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Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - May 2022



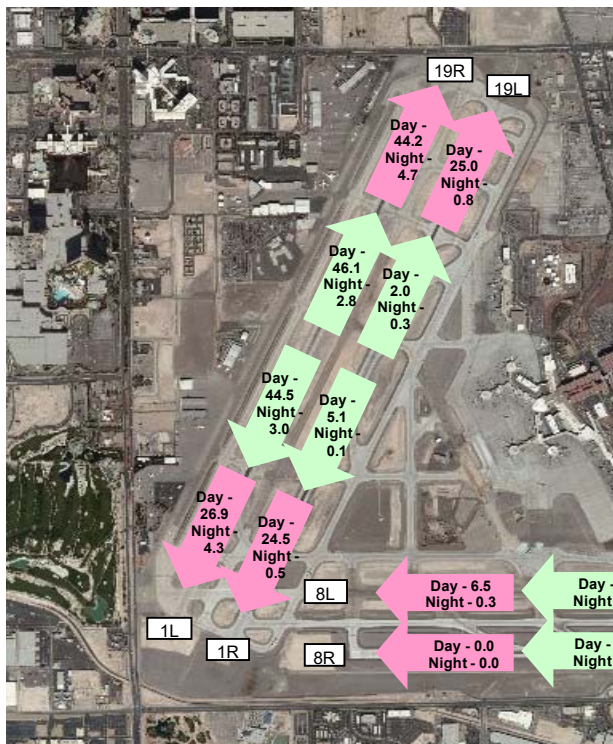
Year	2022		2021		2020	
Daytime Departures	375	77%	320	81%	128	94%
Nighttime Departures	113	23%	74	19%	8	6%
Total Departures	488	100%	395	100%	136	100%

Daytime Arrivals	390	81%	329	86%	132	96%
Nighttime Arrivals	91	19%	54	14%	6	4%
Total Arrivals	481	100%	383	100%	138	100%

Growth	Overall	Daytime	Nighttime
Depts. 2022 vs 2021	24%	17%	52%
Depts. 2022 vs 2020	259%	193%	1386%
Arrivals 2022 vs 2021	25%	19%	67%
Arrivals 2022 vs 2020	249%	196%	1410%

* 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** - May 2022



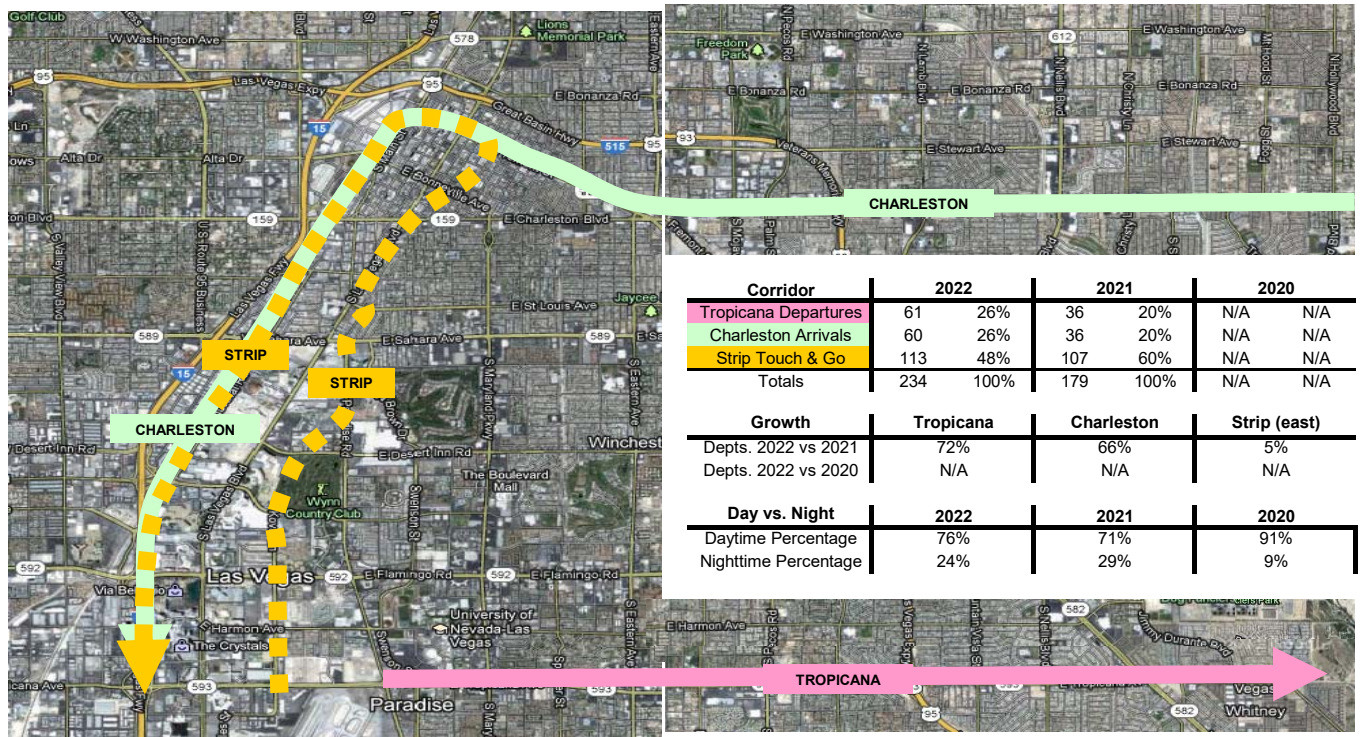
Year	2022		2021		2020	
Daytime Departures	136	93%	114	93%	31	83%
Nighttime Departures	11	7%	9	7%	6	17%
Total Departures	146	100%	123	100%	37	100%

Daytime Arrivals	135	95%	119	96%	30	91%
Nighttime Arrivals	7	5%	5	4%	3	9%
Total Arrivals	142	100%	124	100%	33	100%

Growth	Overall	Daytime	Nighttime
Depts. 2022 vs 2021	19%	19%	19%
Depts. 2022 vs 2020	300%	345%	77%
Arrivals 2022 vs 2021	14%	13%	34%
Arrivals 2022 vs 2020	335%	354%	145%

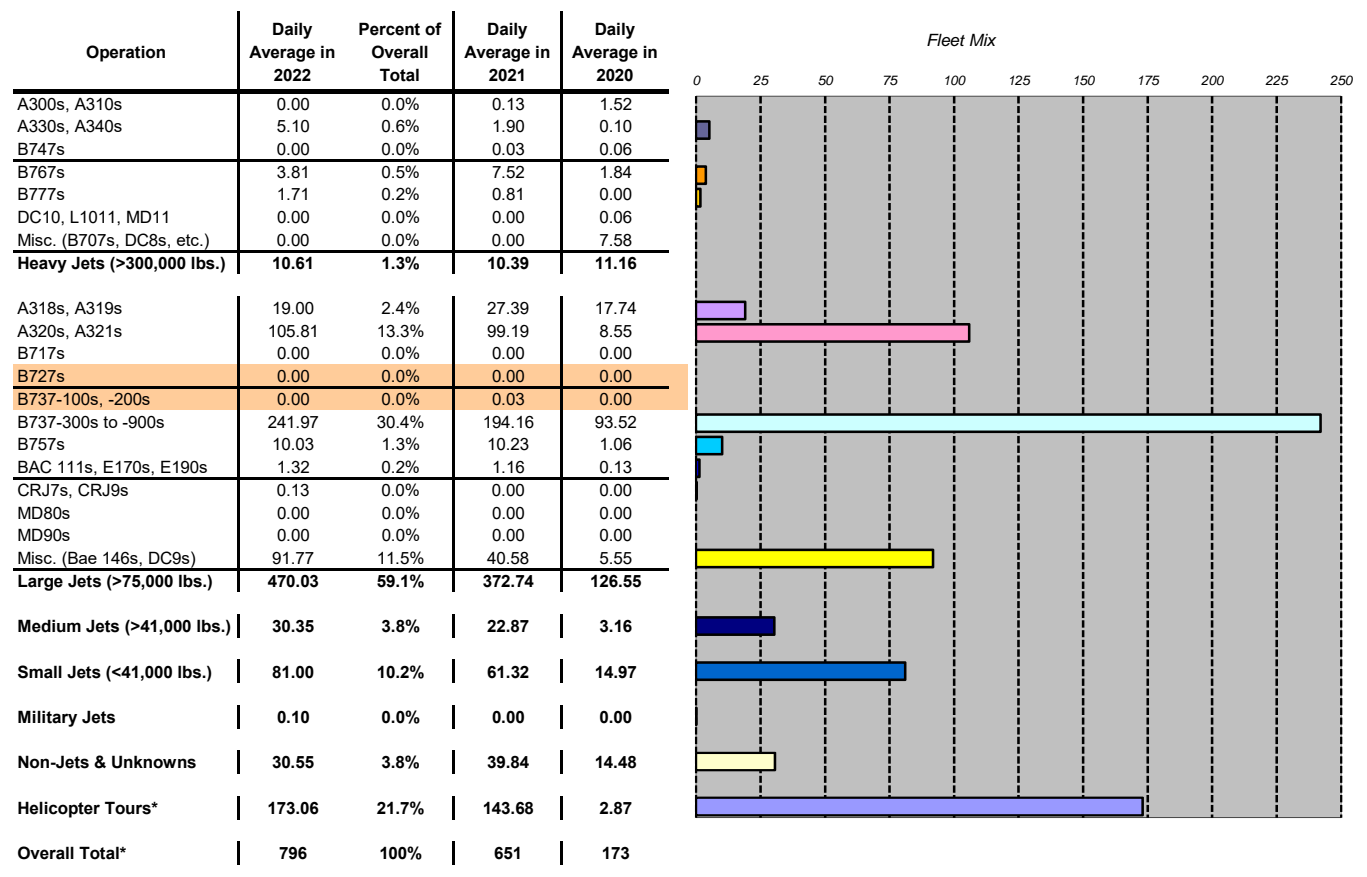
** Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - May 2022



* Helicopter Tours: Note that some operations may originate from facilities besides LAS.

Exhibit 7: LAS Aircraft Arrival Fleet Mix** - May 2022



** 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* - May 2022 to 2020

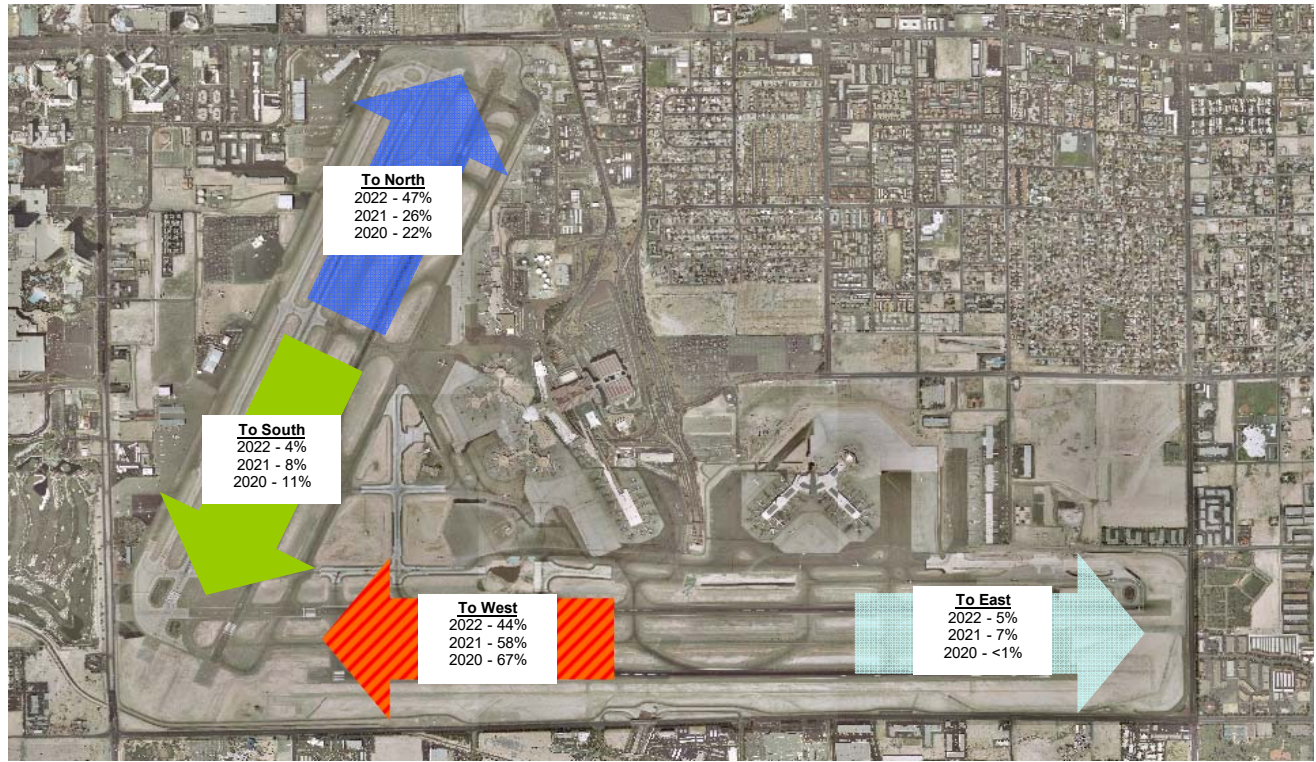
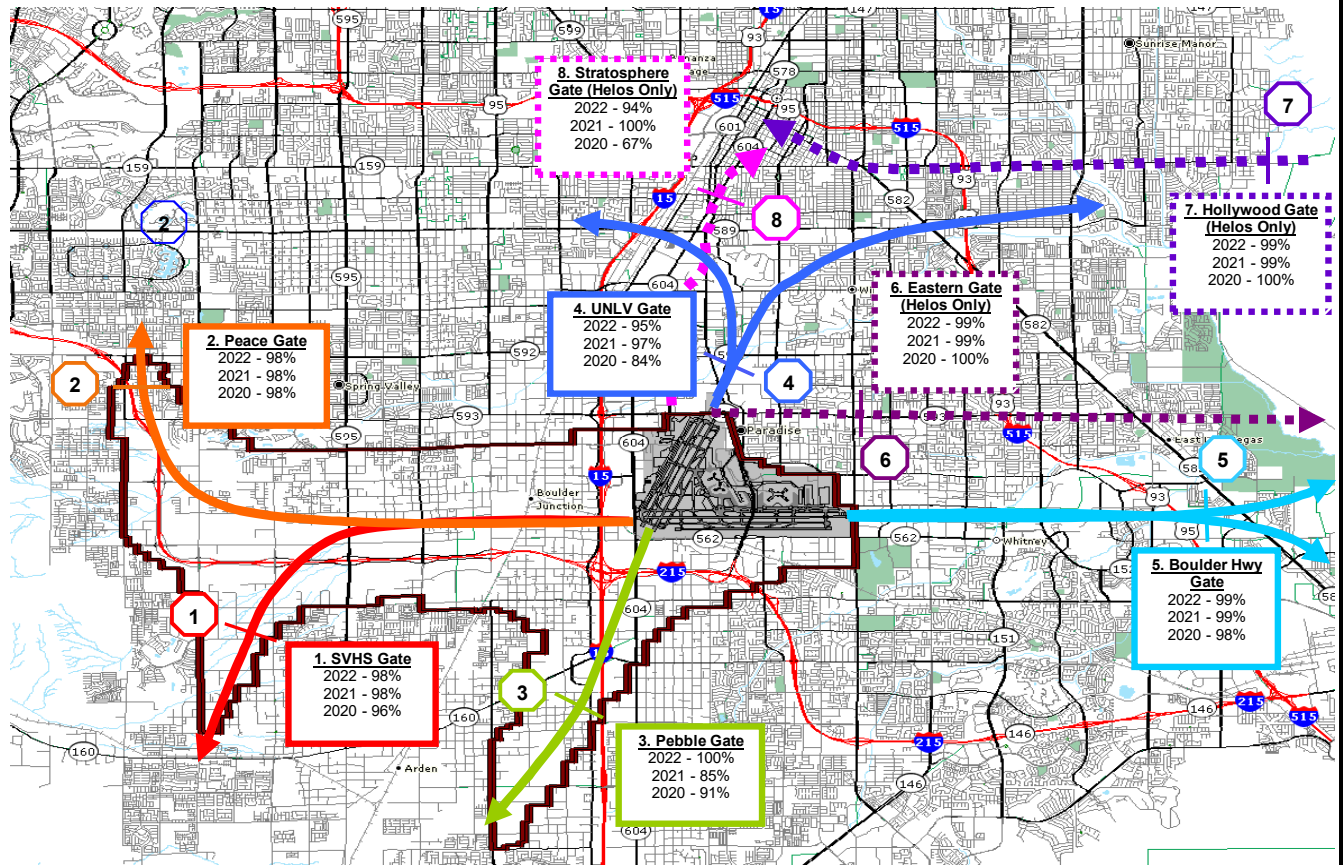


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - May 2022



* 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 - May 2022

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
No. of Land Use Applications Reviewed	110	87	46	18	261	248	145
No. of Applications where CCDOA Issued a Comment	13	8	1	4	26	25	4
Percent of Applications where Comment Issued	12%	9%	2%	22%	10%	10%	3%

Exhibit 11: Land Use Application Comments by Airport Concern - May 2022

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Deed Restrictions	0	0	0	0	0	0	0
Height-Penetrates Part 77 100:1 Surfaces >200'	4	4	1	0	9	11	3
Height-Penetrates Part 77 PATH-C Surfaces*	0	0	0	0	0	0	0
Helipad/Helipad	0	0	0	0	0	0	1
Noise-Commercial within AEOD**	0	2	0	0	2	1	0
Noise-Residential within the AEOD**	0	1	0	0	1	0	0
Noise-Residential Just Outside the AEOD**	9	3	0	4	16	16	1
Misc.-If applicable, detailed info. provided within the written summary	0	0	0	0	0	0	0
Total***	13	10	1	4	28	28	5

* 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* - May 2022

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Within the AEOD	0	87	0	0	87	0	0
Just Outside the AEOD	506	566	0	276	1,348	2,230	239

*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* - May 2022

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Recommend Denial	0	0	0	0	0	0	0
Opposed at Hearings	0	0	0	0	0	0	0

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

Exhibit 14: Airport Environs Overlay Districts & Noise Comments - Valley Wide - May 2022

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 Reid (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.

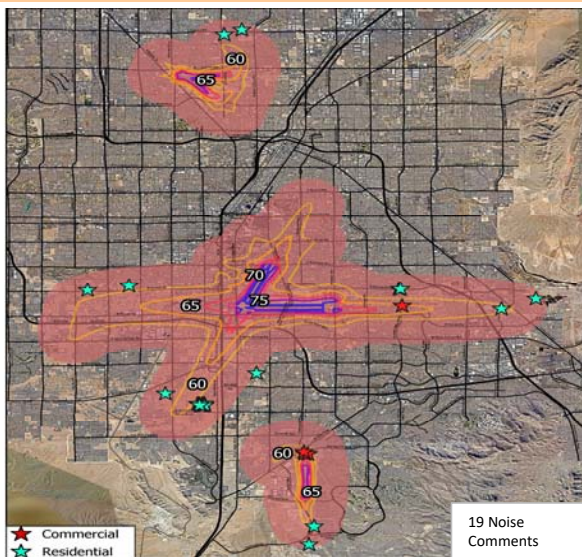


Exhibit 15: Noise Comments - LAS Detail - May 2022

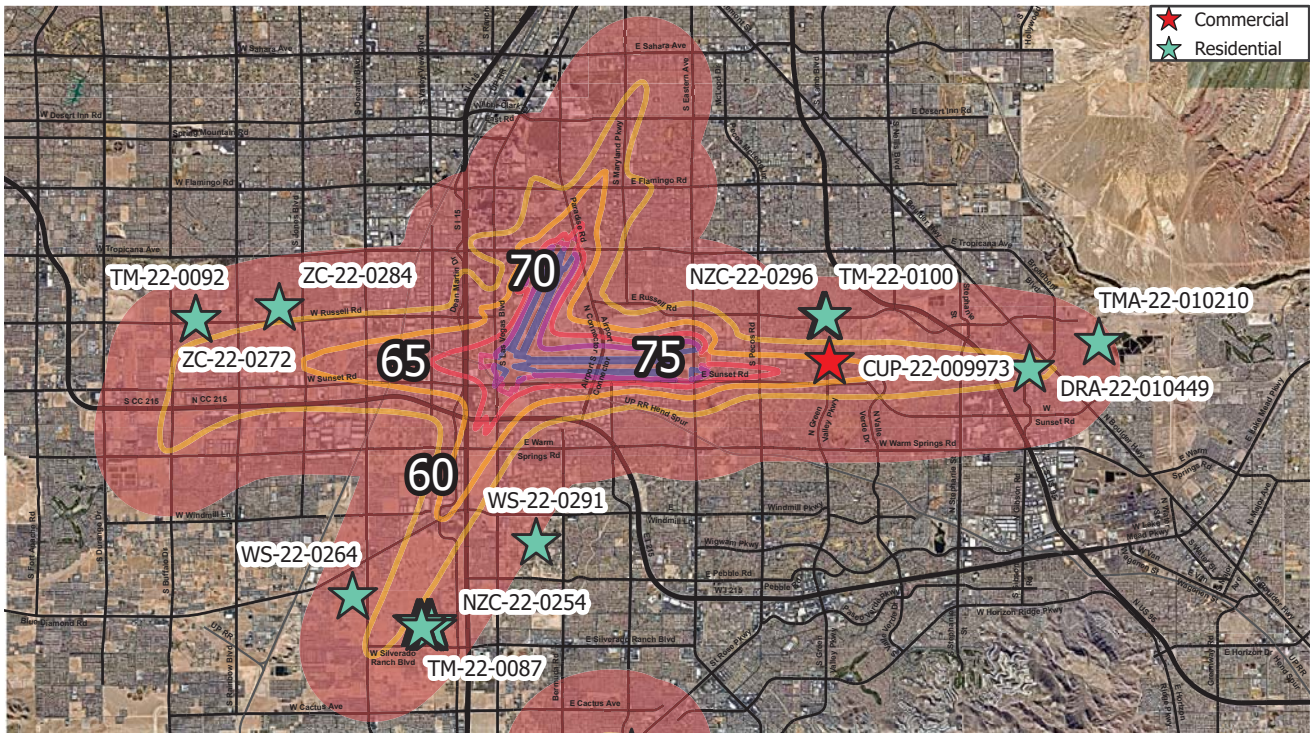


Exhibit 16: Noise Comments - HND Detail - May 2022

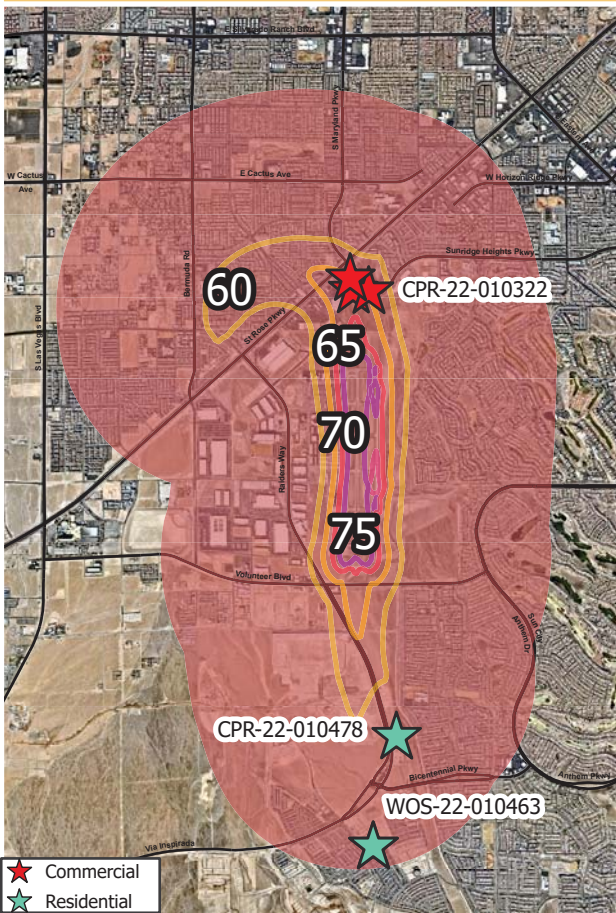


Exhibit 17: Noise Comments - VGT Detail - May 2022

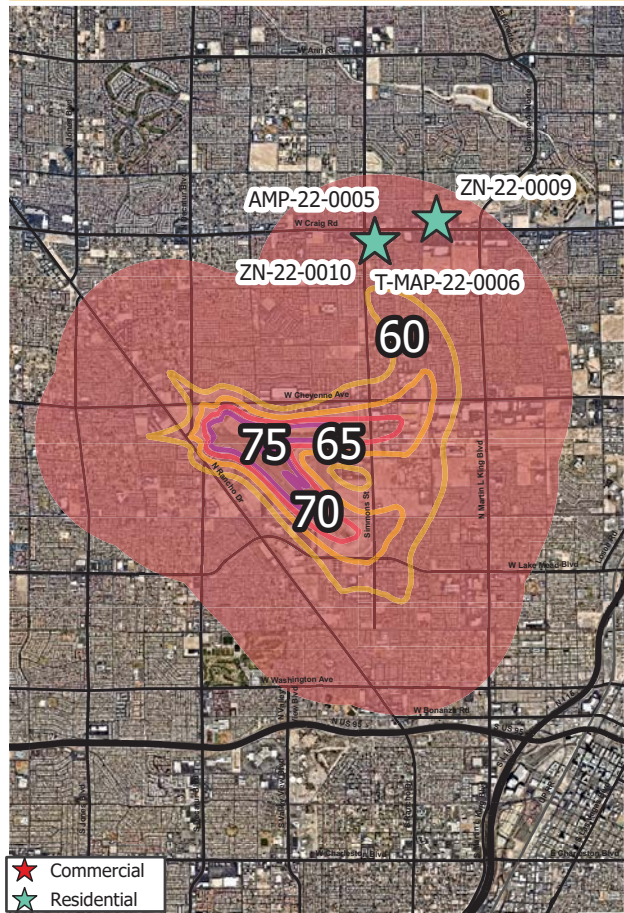


Exhibit 1: Noise Complaint Calls by Community* - June 2022

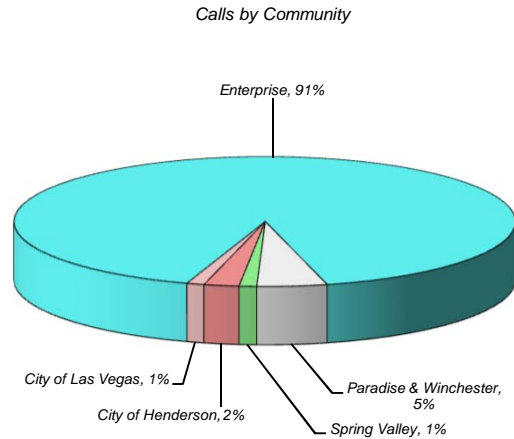
Community	No. of Calls in 2022	No. of Callers in 2022	No. of Calls in 2021	No. of Calls in 2020
City of Boulder City	2	2	3	3
City of Henderson	1	1		
City of Las Vegas				1
City of North Las Vegas				
Enterprise	81	14	64	14
Lone Mountain				
Paradise & Winchester	4	3	5	1
Spring Valley	1	1	3	4
Summerlin South				
Sunrise Manor				
Whitney				
Location unknown				
Overall Total	89	21	75	23

Difference between 2022 and 2021 Total Calls: 19%

Difference between 2022 and 2020 Total Calls: 287%

Average Number of Calls per Caller: 4.2

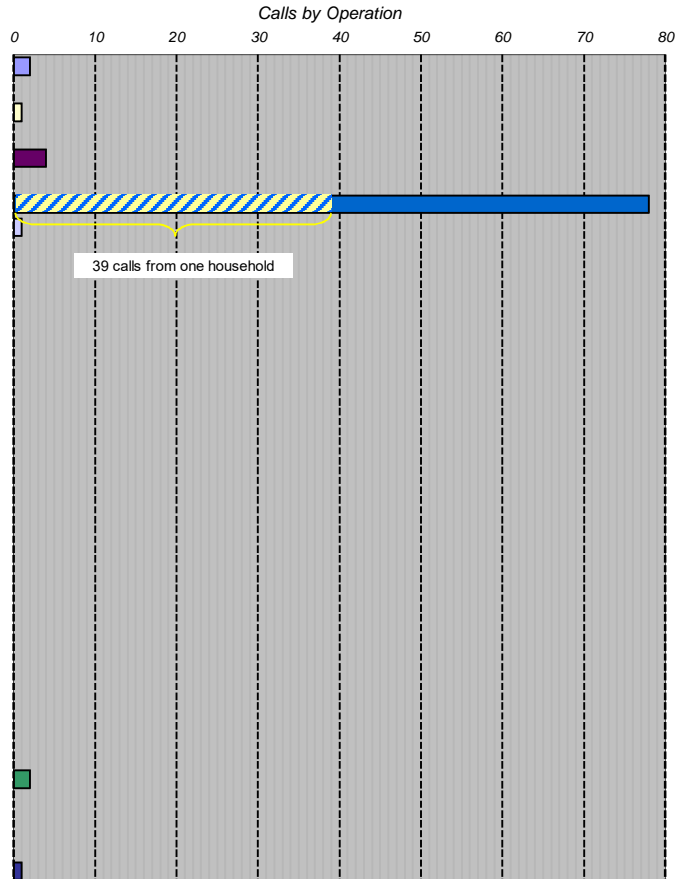
Most calls received from one household: 39



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

Exhibit 2: Noise Complaint Calls by Type of Operation - June 2022

Operation	No. of Calls in 2022	Percent of Overall Total	No. of Calls in 2021	No. of Calls in 2020
LAS 01R/L Arrivals	2	2.2%	2	
LAS 08R/L Arrivals			1	
LAS 19R/L Arrivals	1	1.1%		
LAS 26R/L Arrivals			3	14
LAS 01R/L Departures	4	4.5%		5
LAS 08R/L Departures			6	
LAS 19R/L Departures	78	87.6%	58	
LAS 26R/L Departures	1	1.1%	3	
LAS Run-ups				
LAS GA				
LAS Other				
LAS Total	86	96.6%	73	19
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	2	2.2%	2	3
HND Other				
HND Total	2	2.2%	2	3
Helicopters**	1	1.1%		
Overall Total	89	100%	75	23



** 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 - Jun 2022

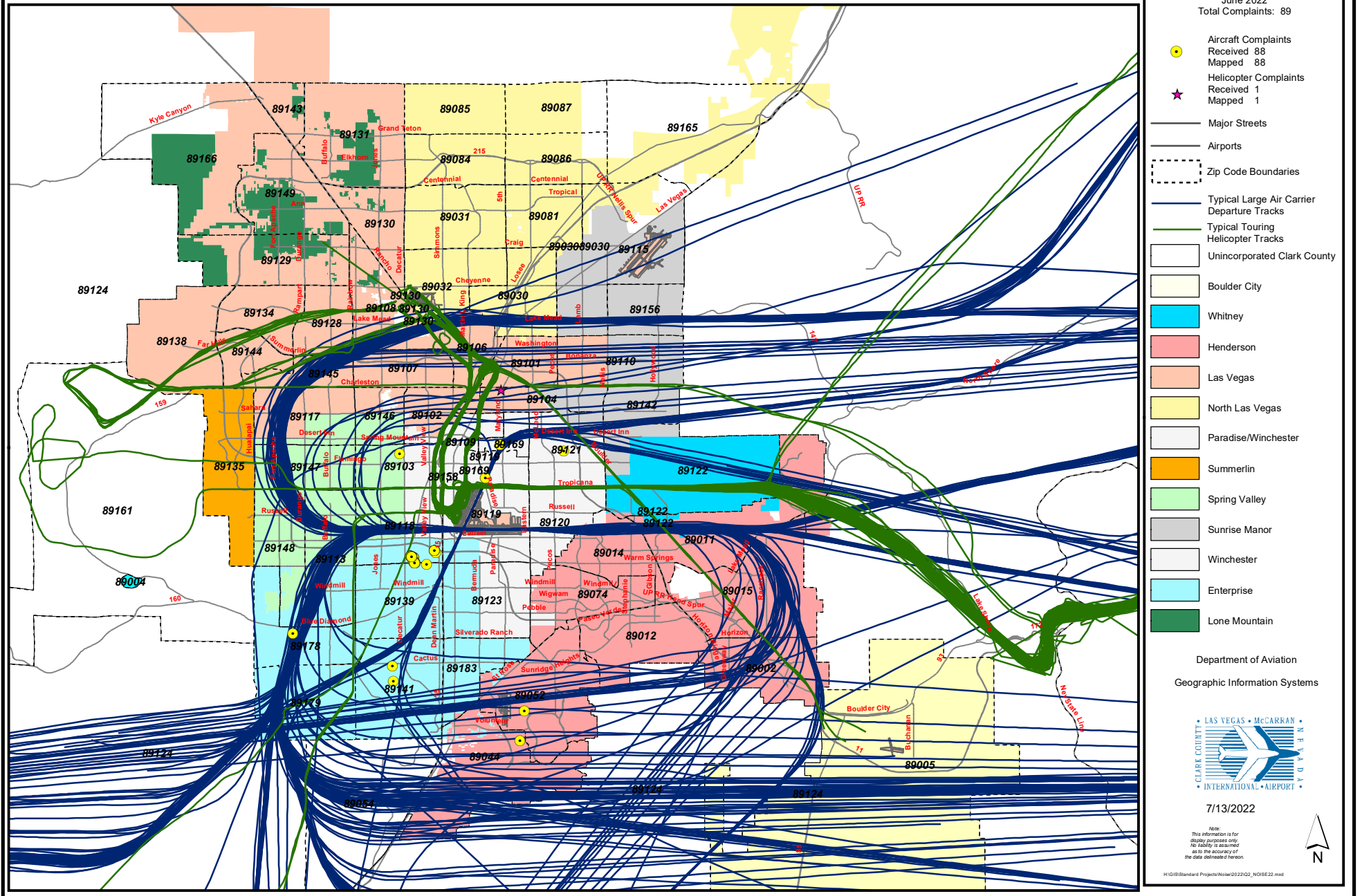
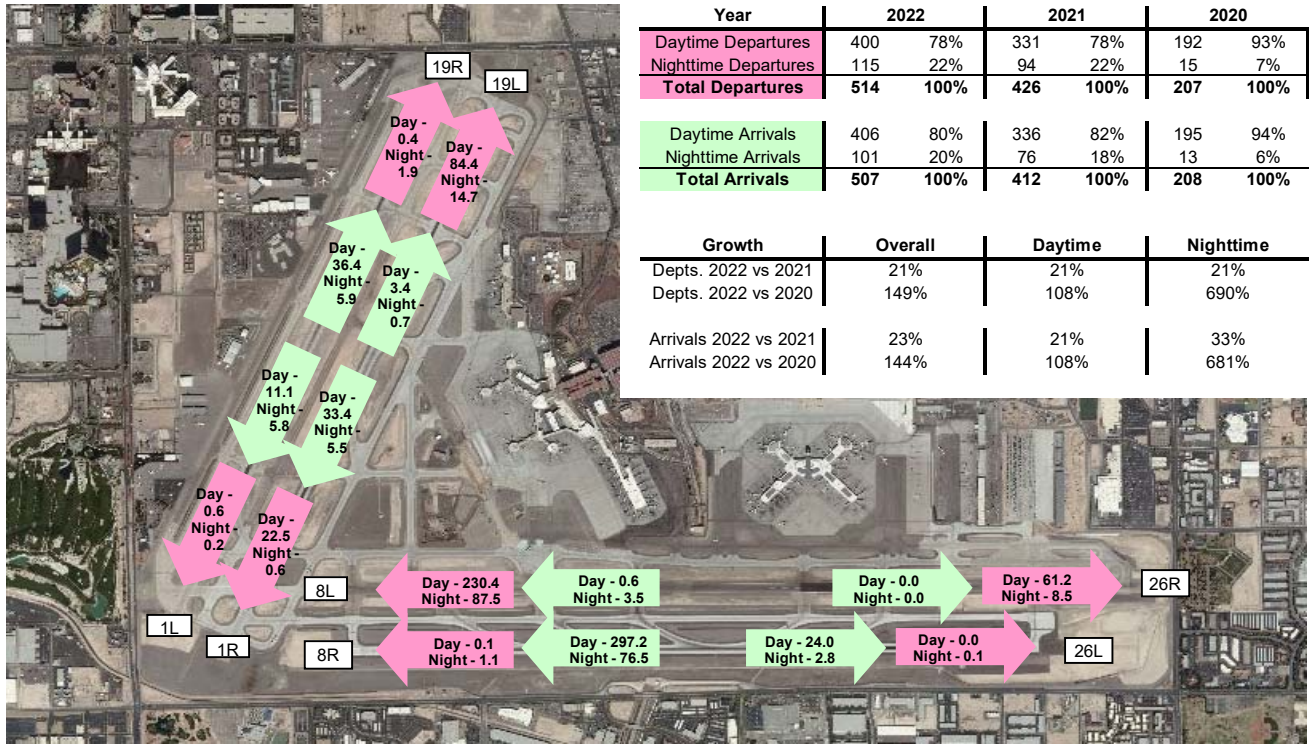
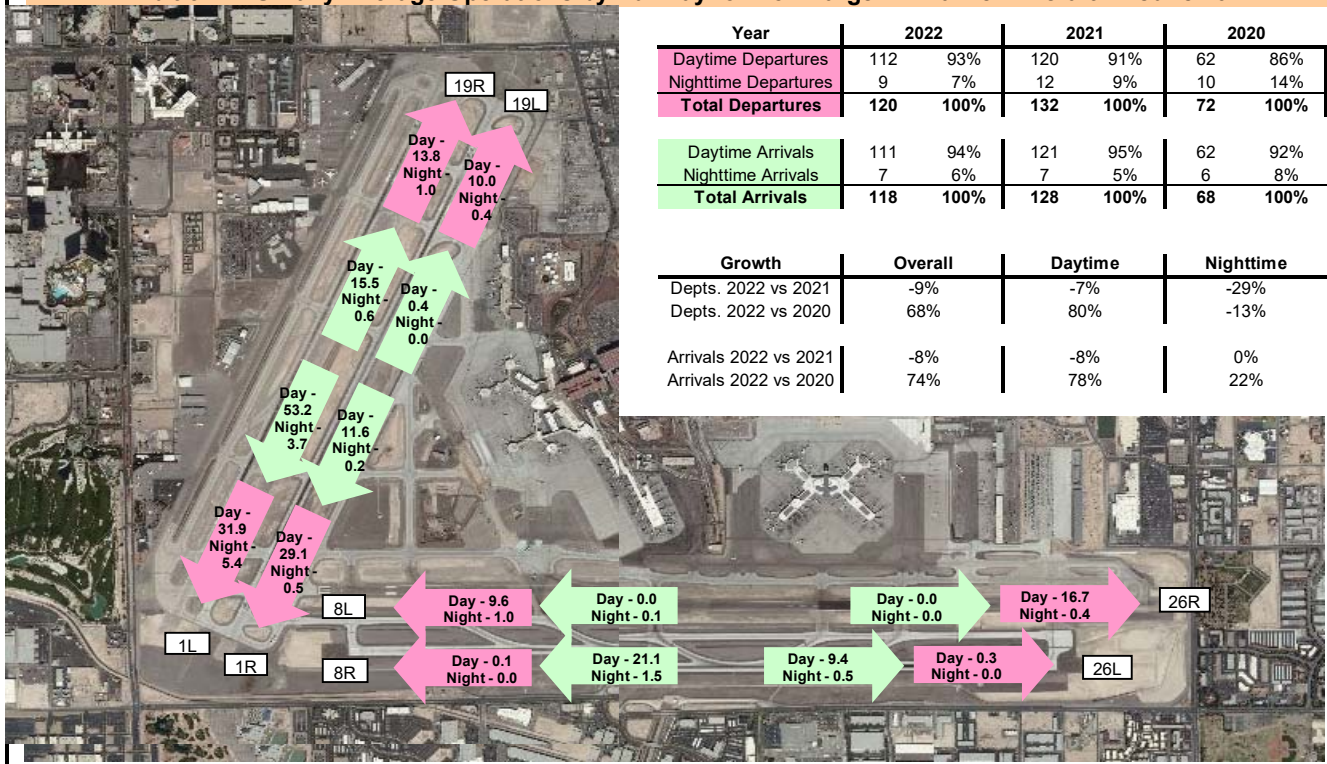


Exhibit 4: LAS Daily Average Operations Runway for Large Air Carrier Aircraft* - June 2022



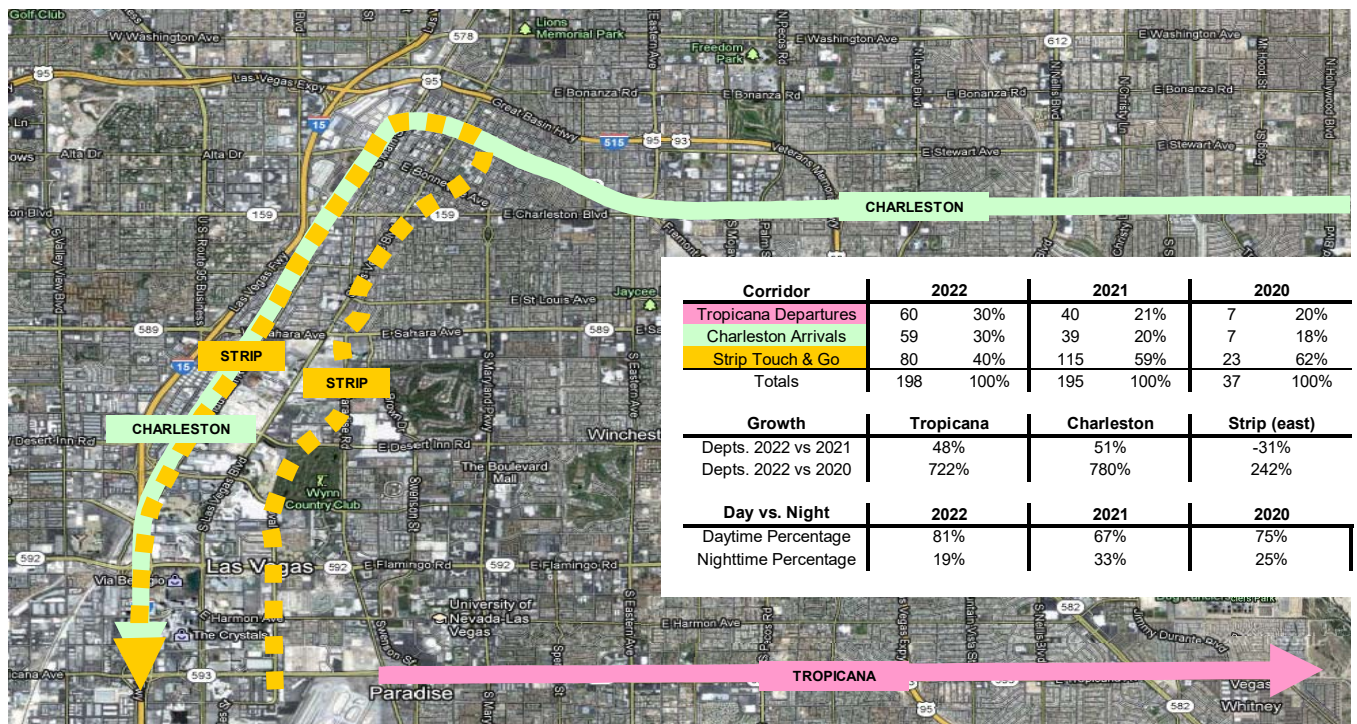
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Exhibit 5: LAS Daily Average Operations by Runway for Non-Large Air Carrier Aircraft** - June 2022



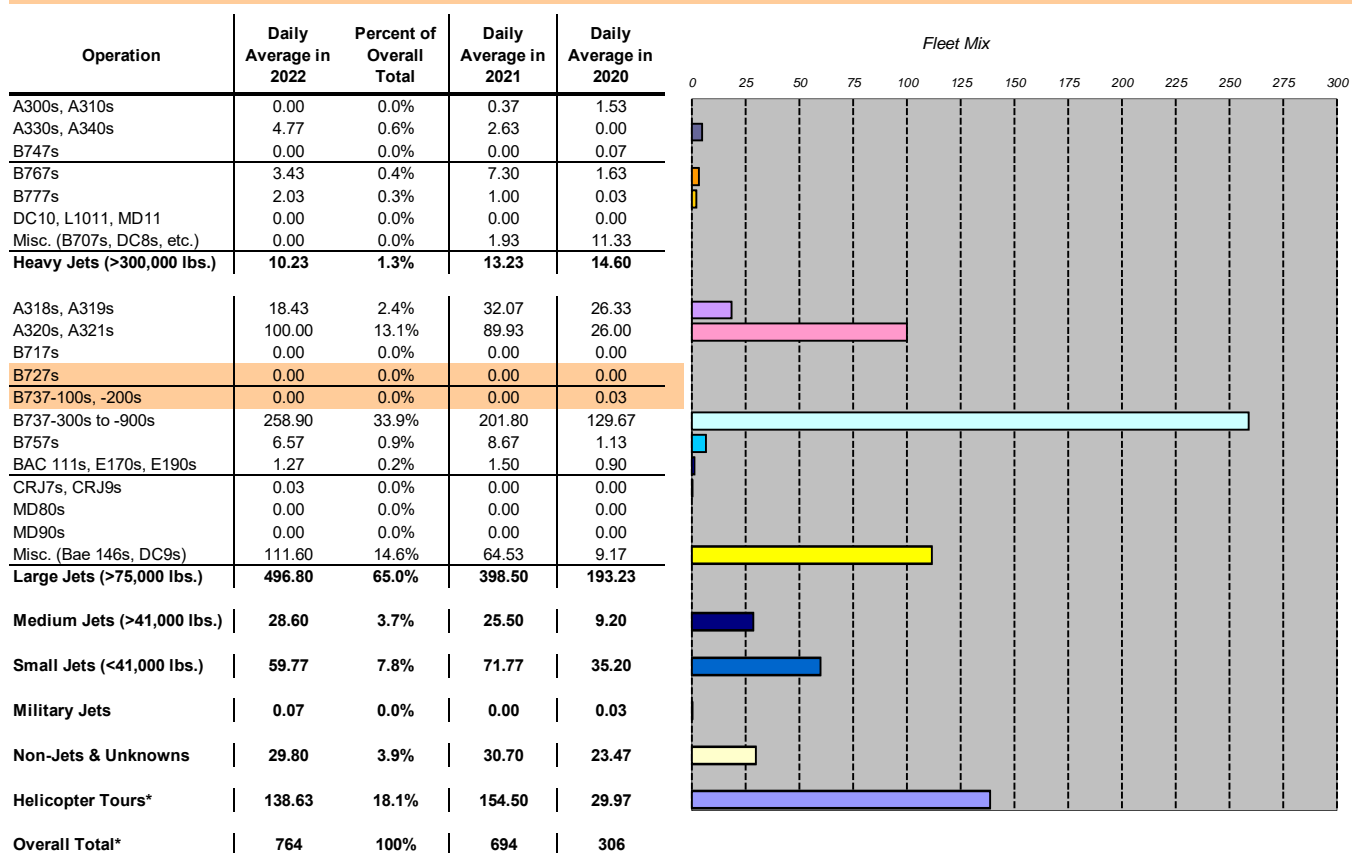
** Aircraft types: All aircraft with a maximum gross take off weight less than 75,000 pounds, excluding helicopters.

Exhibit 6: LAS Daily Average Operations by Corridor for Helicopter Tours* - June 2022



* Helicopter Tours: Note that some operations may originate from facilities besides LAS.

Exhibit 7: LAS Aircraft Arrival Fleet Mix** - June 2022



** 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* - June 2022 to 2020

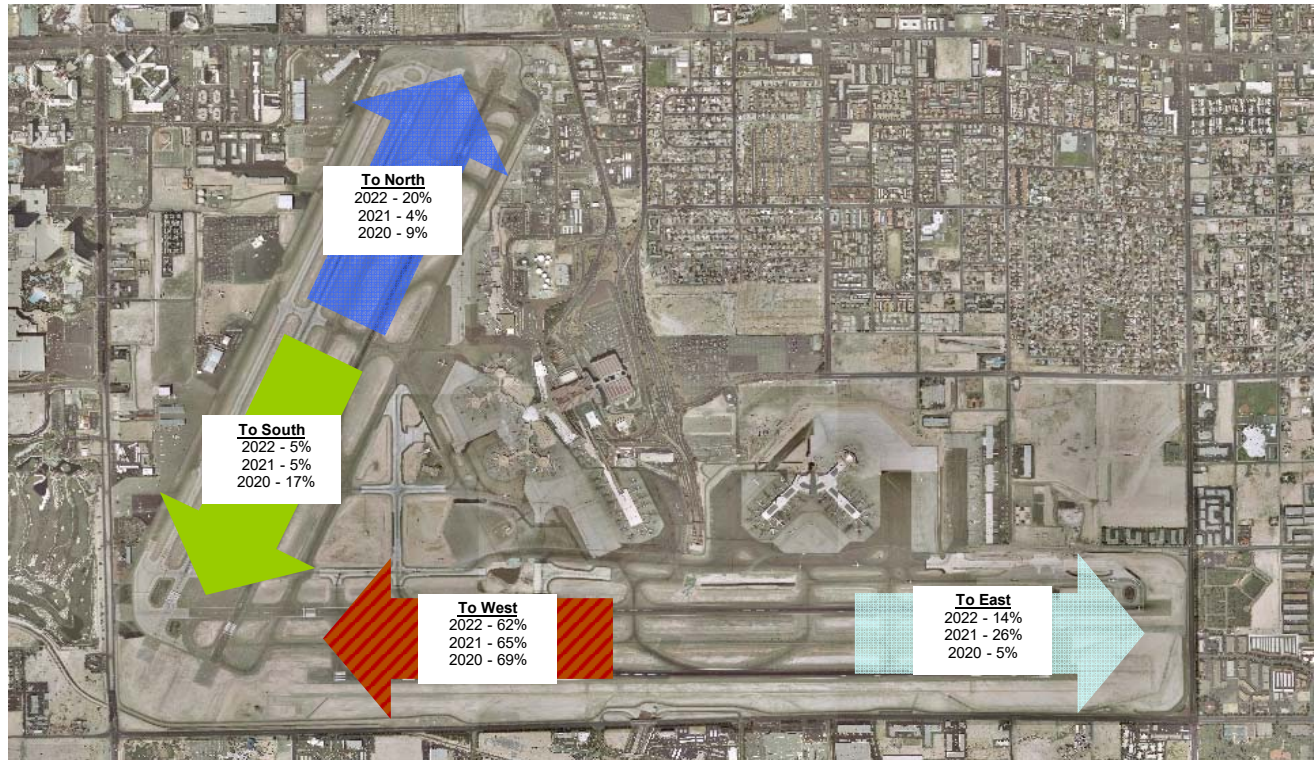
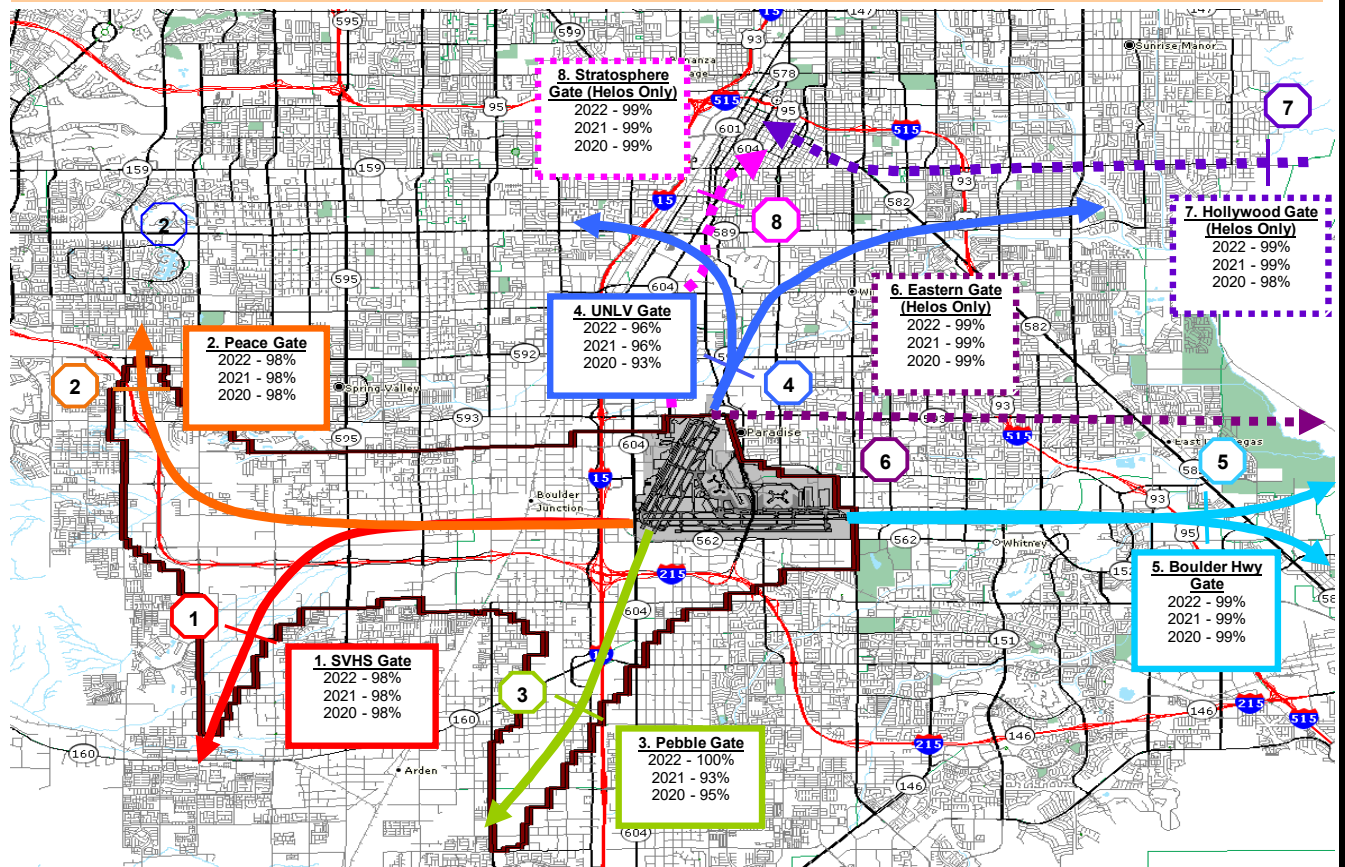


Exhibit 9: "Gate" Compliance for Large Aircraft* & LAS Helicopter Tours - June 2022



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Exhibit 10: Land Use Application Reviews & Comments - June 2022

Land Use Application Review Summary	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
No. of Land Use Applications Reviewed	133	20	37	12	202	241	174
No. of Applications where CCDOA Issued a Comment	17	2	2	2	23	12	11
Percent of Applications where Comment Issued	13%	10%	5%	17%	11%	5%	6%

Exhibit 11: Land Use Application Comments by Airport Concern - June 2022

Summary by Comment Type	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Deed Restrictions	0	0	0	0	0	0	4
Height-Penetrates Part 77 100:1 Surfaces >200'	5	2	2	0	9	7	1
Height-Penetrates Part 77 PATH-C Surfaces*	0	0	0	0	0	0	0
Helipad/Helipad	0	0	0	0	0	0	0
Noise-Commercial within AEOD**	3	0	0	0	3	1	0
Noise-Residential within the AEOD**	0	0	0	0	0	1	2
Noise-Residential Just Outside the AEOD**	9	1	0	2	12	5	8
Misc.-If applicable, detailed info. provided within the written summary	0	0	0	0	0	0	0
Total***	17	3	2	2	24	14	15

* 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* - June 2022

Dwelling Units Proposed in Commented Applications	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Within the AEOD	0	0	0	0	0	166	134
Just Outside the AEOD	693	104	0	54	851	1,079	1,714

*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* - June 2022

Summary of LUA Opposed	Clark County	City of Henderson	City of Las Vegas	City of North Las Vegas	2022 Total	2021 Total	2020 Total
Recommend Denial	0	0	0	0	0	0	2
Opposed at Hearings	0	0	0	0	0	0	0

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

Exhibit 14: Airport Environs Overlay Districts & Noise Comments - Valley Wide - June 2022

AEOD - Airport Environs Overlay Districts - Noise Contours

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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.

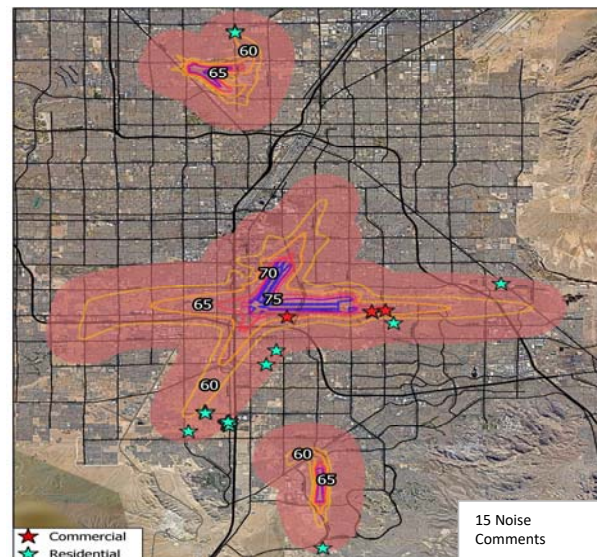


Exhibit 15: Noise Comments - LAS Detail - June 2022

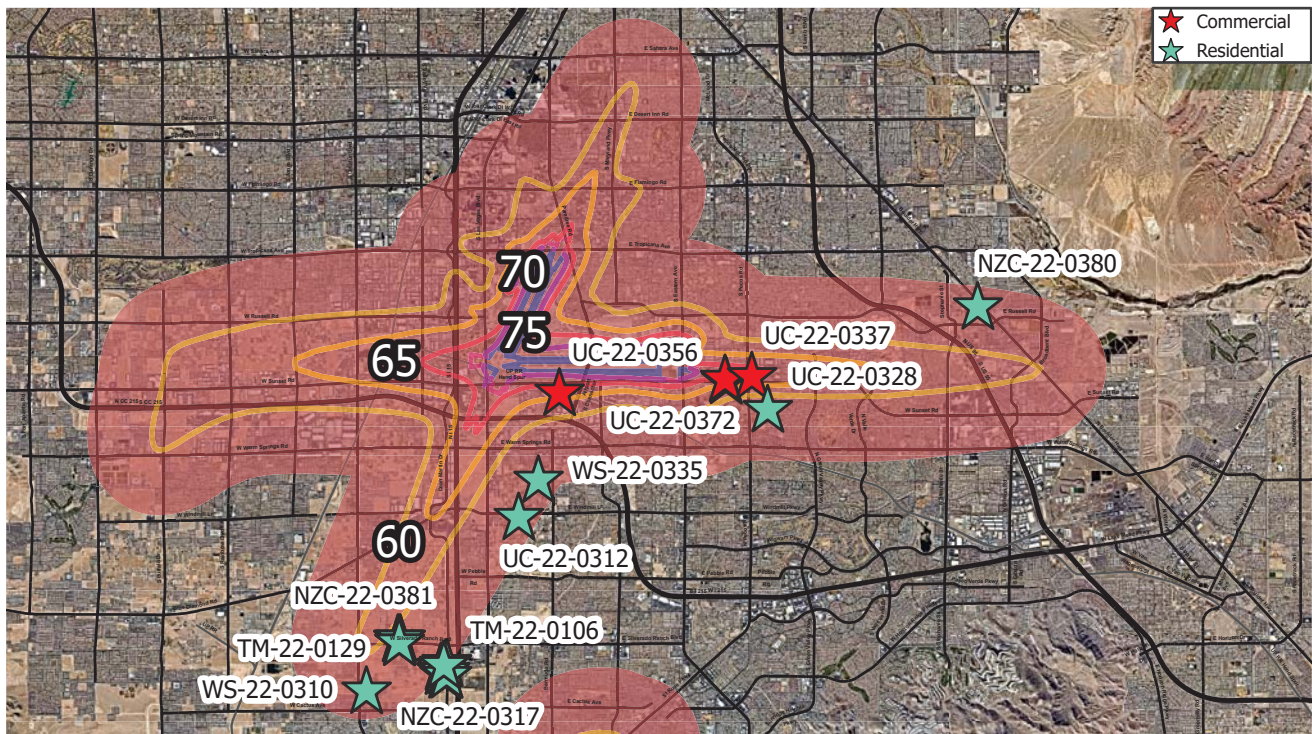


Exhibit 16: Noise Comments - HND Detail - June 2022

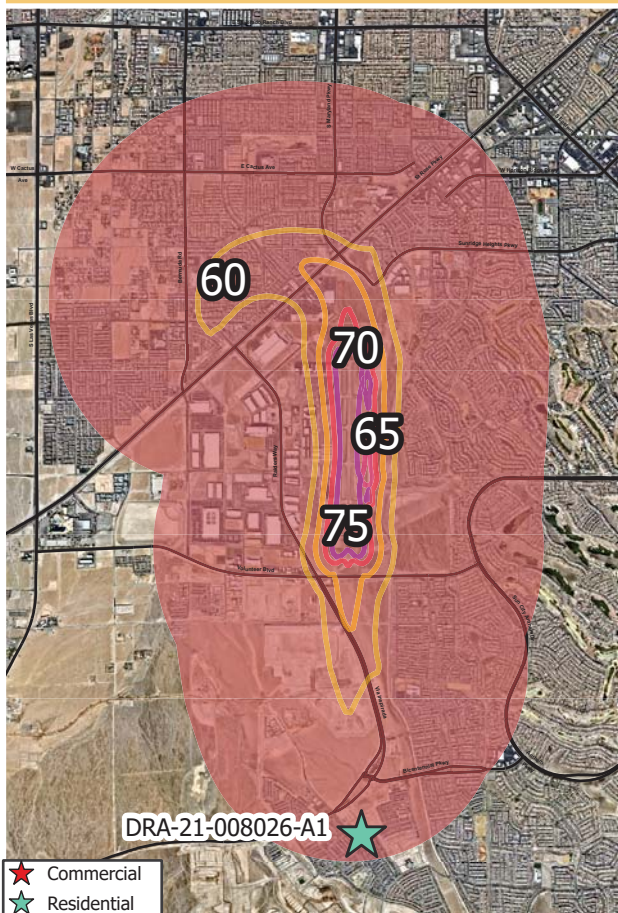


Exhibit 17: Noise Comments - VGT Detail - June 2022

