CENTENNIAL AIRPORT

CENTENNIAL AIRPORT

# JULY 2025 NOISE REPORT

Visit Our Website

**centennialairport.com**

# 1. Table of Contents


**2. Definitions ..... 3**

**3. About APA's Noise Monitoring Program ..... 4**

**4. About WebTrak™ ..... 5**

**5. Operations Statistics ..... 6**

**6. Noise Monitor Reports ..... 7**

**7. Current Month Noise Complaint Statistics ..... 8-9**

**8. YTD Noise Complaint Statistics ..... 10-12**

**9. Radar Track Density ..... 13**

**10. Notes and Disclaimer ..... 14**

# 2. Definitions

**A-weighted Sound Level –** A measure of sound level with weighted frequency characteristics that correspond to human subjective response to noise.

**Arrival –** The act of an aircraft approaching and landing at an airport.

**Ambient Noise Level –** The level of noise that is all-encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the noise monitor.

**Community Noise Event Level (CNEL) –** The average sound level over a 24-hour period, with a penalty of 10dB for nighttime hours between 10:00 PM and 7:00 AM.

**Day Night Average Sound Level (DNL)** – A measure of the average noise level over a 24-hour day. It is the 24-hour, logarithmic (or energy) average, A-weighted sound pressure level with a 10-decibel penalty applied to the nighttime event levels that occur between 10:00 PM and 7:00 AM.

**Decibel (dB) –** A logarithmic quantity reflecting the ratio of the sound pressure of the source to a reference pressure. This results in a sound pressure level of about 0 dB for the quietest sounds that we can detect and sound pressure levels of about 120 dB for the loudest sounds that can be heard without pain.

**Departure –** The act of an aircraft taking flight and leaving the airport.

**Energy-Averaged Sound Pressure Level (Leq) –** The value or level of a steady, non-fluctuating sound that represents the same sound energy as the actual time-varying sound evaluated over the same time period.

**Flight Track –** The path along the ground followed by an aircraft in flight.

**Instrument Flight Rules (IFR)** Rules and regulations established by the FAA to govern flight under conditions in which flight by outside visual reference is not safe. IFR flight depends upon flying by reference to instruments, and navigation is accomplished by reference to electronic signals. It is also a term used by pilots and controllers to indicate the type of flight plan an aircraft is flying, such as an IFR or VFR flight plan.

**Local Operations –** Operations in the local traffic pattern or within sight of the airport; flight in local practice areas within a 20 mile radius; execute simulated instrument approaches or low airport passes.

**Maximum Noise Level ($L_{max}$) –** The peak noise level for a single noise event.

**Noise Exposure –** The cumulative sound energy affecting a person over a specified period of time.

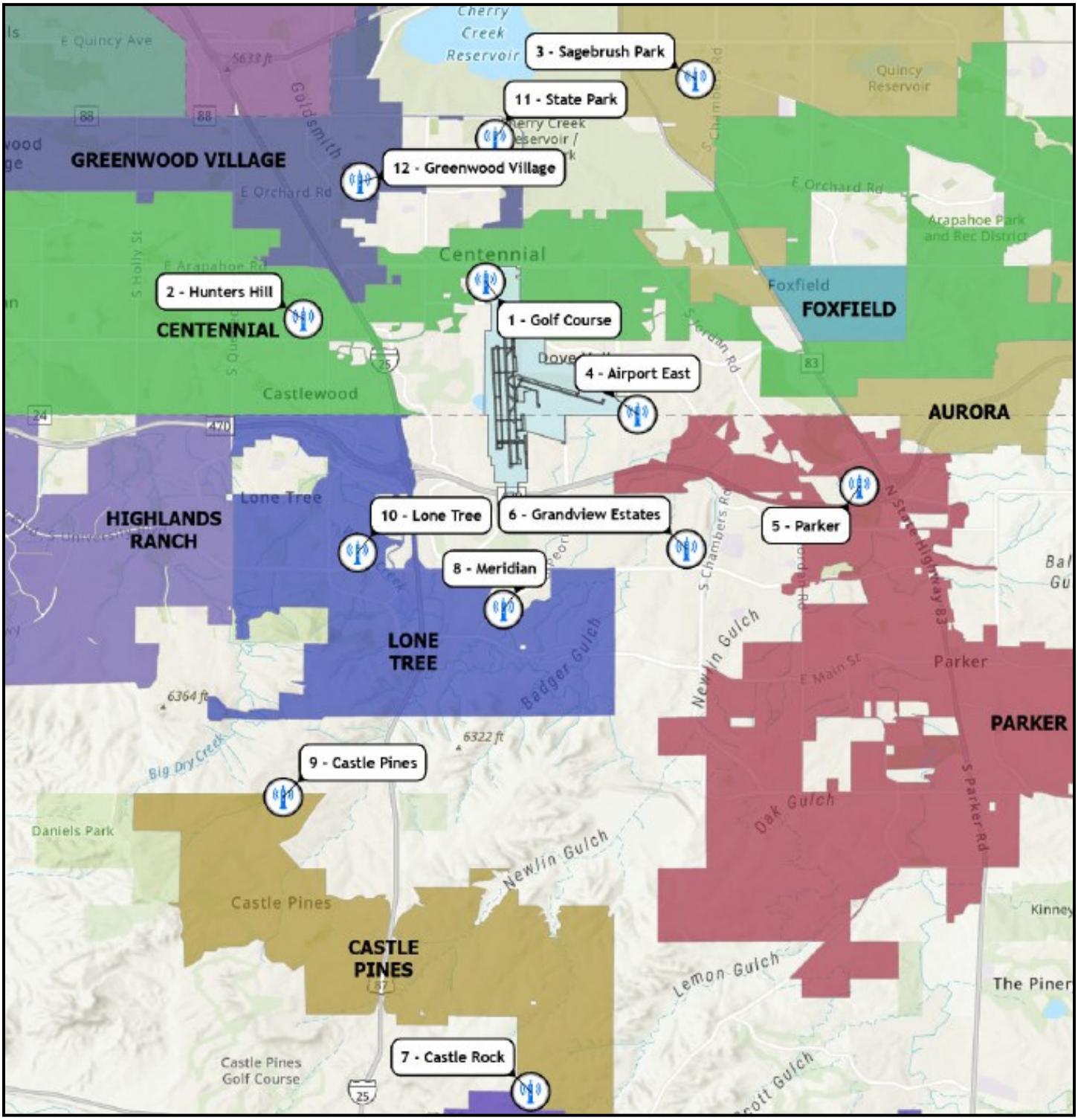
**Overflight –** Aircraft flight originating and terminating outside the area that transits the airspace without landing.

**Visual Flight Rules (VFR) –** A set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going. A flight plan is not required when the pilot is operating under Visual Flight Rules.

**Sound Exposure Level (SEL) –** The total energy in the A-weighted sound level measured during a transient noise event. SEL accounts for both the duration and the loudness of a noise event.

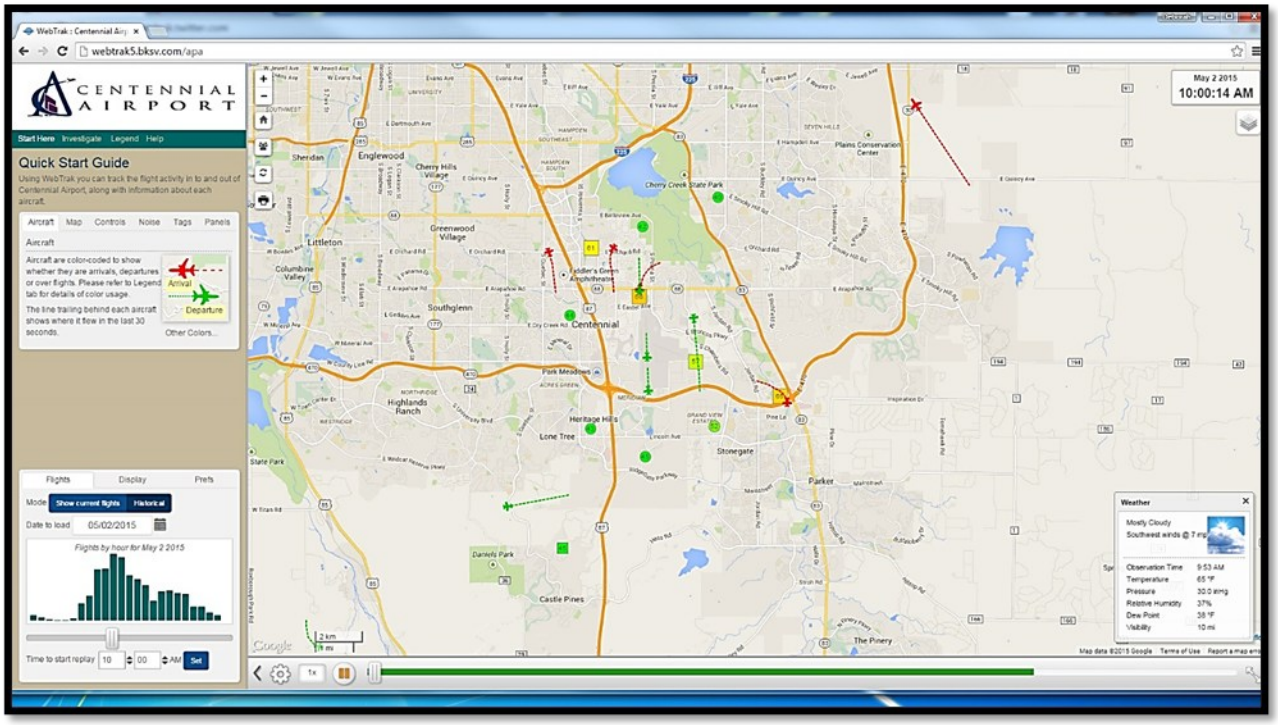
# 3. About APA's Noise Monitoring Program

Centennial Airport's (KAPA) Noise and Operations Monitoring System (ANOMS) is a new state of the art system that enables the Arapahoe County Public Airport Authority to monitor and better understand aircraft noise in the vicinity of Centennial Airport. This system is comprised of 12 fixed noise monitoring terminals in the community, as well as 2 portable monitors that are available for short term monitoring anywhere in the community.



# 4. About WebTrak™

As part of an ongoing program, Centennial Airport offers an online tracking system for the movement of flights and air traffic patterns within the Denver Metro area. **WebTrak** Flight Tracking and Noise Information System allows concerned individuals to research data about flights to and from Centennial Airport, Denver International Airport, Rocky Mountain Metropolitan Airport, Colorado Air & Space Port and Buckley Space Force Base, as well as any transitional air traffic through the region.




## How to participate

The general public may use **WebTrak** to investigate a noise or flight that occurred near their location. The system also simplifies the process of filing a noise complaint, offering an easy, online option for residents to register concerns regarding noise levels at the following web addresses;

WebTrak: https://webtrak.emsbk.com/apa

Additional Noise Information: https://centennialairport.com/track-and-report-noise

**Scan here to view Centennial Airport's**
**Voluntary Noise Abatement Information**

APA NOISE INFO

# 5. Operations Statistics

| | IFR ITINERANT | | | | VFR ITINERANT | | | | LOCAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AIR TAXI | G.A. | MILITARY | TOTAL ITINERANT | AIR TAXI | G.A. | MILITARY | TOTAL | G.A. | MILITARY | TOTAL LOCAL |
| January | 2,634 | 2,546 | 131 | 5,311 | 1,559 | 5,291 | 77 | 6,927 | 11,197 | 2 | 11,199 |
| February | 2,509 | 2,499 | 134 | 5,142 | 1,488 | 5,097 | 84 | 6,669 | 11,271 | 6 | 11,277 |
| March | 2,682 | 2,896 | 124 | 5,702 | 1,731 | 5,897 | 83 | 7,711 | 13,120 | 15 | 13,135 |
| April | 2,405 | 2,562 | 161 | 5,128 | 1,706 | 5,418 | 89 | 7,213 | 12,912 | 0 | 12,912 |
| May | 2,644 | 2,939 | 164 | 5,747 | 1,826 | 6,358 | 84 | 8,268 | 13,704 | 7 | 13,711 |
| June | 2,833 | 3,052 | 241 | 6,126 | 1,724 | 6,426 | 80 | 8,230 | 12,056 | 22 | 12,078 |
| July | 2,874 | 3,195 | 196 | 6,265 | 1,938 | 7,010 | 84 | 9,032 | 12,140 | 3 | 12,143 |
| August | | | | 0 | | | | 0 | | | 0 |
| September | | | | 0 | | | | 0 | | | 0 |
| October | | | | 0 | | | | 0 | | | 0 |
| November | | | | 0 | | | | 0 | | | 0 |
| December | | | | 0 | | | | 0 | | | 0 |
| **Y-T-D Totals** | **18,581** | **19,689** | **1,151** | **39,421** | **11,972** | **41,497** | **581** | **54,050** | **86,400** | **55** | **86,455** |

| | IFR OVERFLIGHTS | | | | VFR OVERFLIGHTS | | | |
|---|---|---|---|---|---|---|---|---|
| | AIR TAXI | G.A. | MILITARY | TOTAL INTINERANT | AIR TAXI | G.A. | MILITARY | TOTAL |
| January | 6 | 3 | 2 | 11 | 31 | 49 | 2 | 82 |
| February | 0 | 3 | 1 | 4 | 35 | 53 | 6 | 94 |
| March | 7 | 6 | 1 | 14 | 29 | 53 | 3 | 85 |
| April | 6 | 2 | 2 | 10 | 41 | 72 | 10 | 123 |
| May | 7 | 13 | 2 | 22 | 30 | 64 | 5 | 99 |
| June | 7 | 6 | 1 | 14 | 36 | 37 | 3 | 76 |
| July | 4 | 8 | 2 | 14 | 49 | 81 | 8 | 138 |
| August | | | | 0 | | | | 0 |
| September | | | | 0 | | | | 0 |
| October | | | | 0 | | | | 0 |
| November | | | | 0 | | | | 0 |
| December | | | | 0 | | | | 0 |
| **Y-T-D Totals** | **37** | **41** | **11** | **89** | **251** | **409** | **37** | **697** |

| | TOTAL OPERATIONS |
|---|---|
| January | 23,530 |
| February | 23,186 |
| March | 26,647 |
| April | 25,386 |
| May | 27,847 |
| June | 26,524 |
| July | 27,592 |
| August | |
| September | |
| October | |
| November | |
| December | |
| **Y-T-D Totals** | **180,712** |

## Definitions

**Air Taxi –** A company that operates aircraft that carry cargo or mail, or passengers on an on demand or charter basis.

**General Aviation (G.A.) –** All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.

**Local –** Operations are performed by aircraft which operate in the local traffic pattern or within sight of the airport; flight in local practice areas located within a 20-mile radius of the airport; execute simulated instrument approaches or low passes at the airport.

**IFR Itinerant –** Operations other than local operations conducted under Instrument Flight Rules.

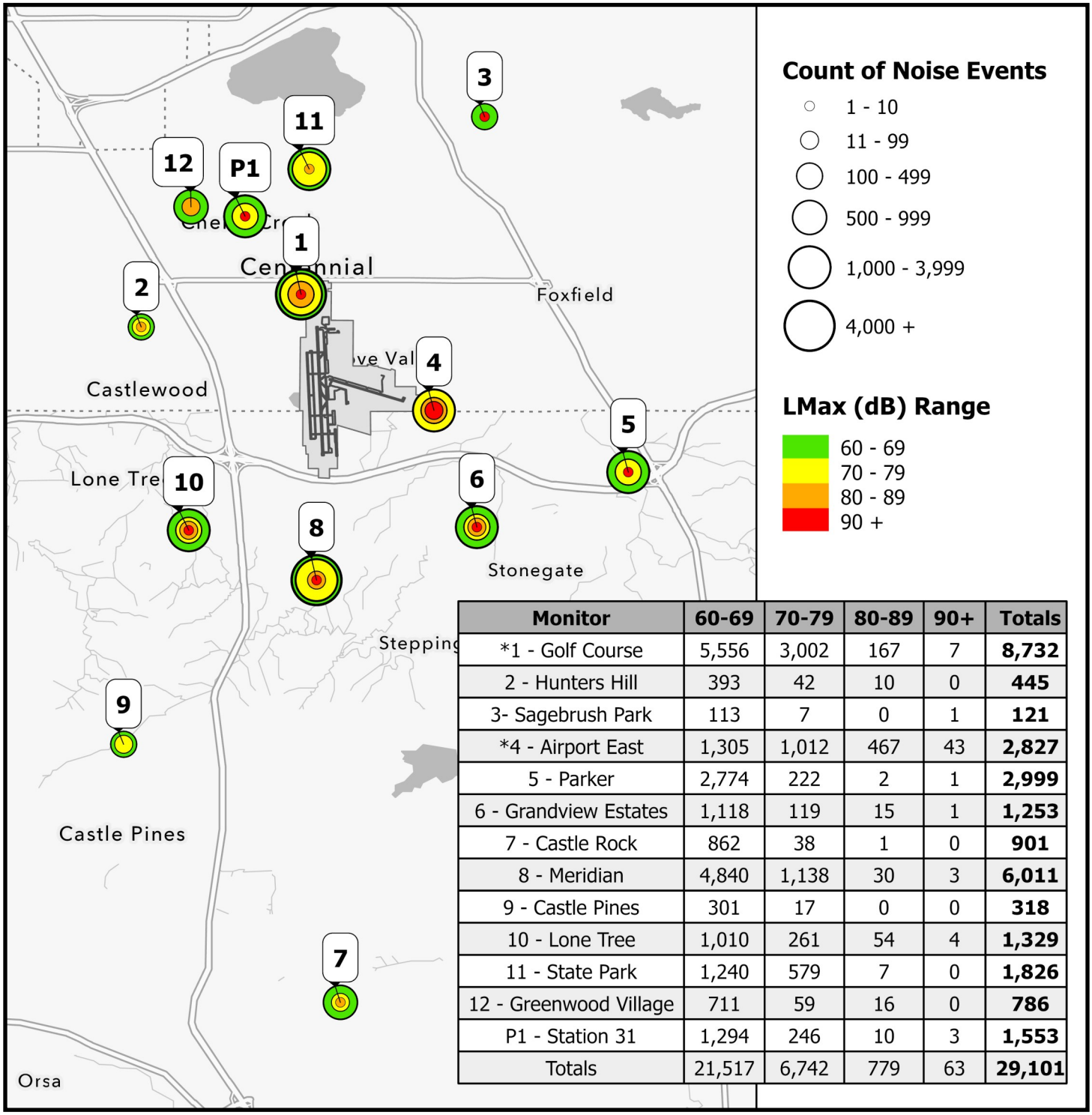
**VFR Itinerant –** Operations other than local operations conducted under Visual Flight Rules.

**Overflight –** Operation performed by aircraft that transit the area and did not originate or did not terminate within the airspace.

# 6. Noise Monitor Report

The following data displays the amount and associated decibel level of aircraft noise events at a given monitor. An aircraft noise event must contain the following characteristics:

First, the noise event must exceed the ambient noise level. This number varies at every monitor, but is generally greater than 50-55db. Secondly, the noise event must last longer than 5 seconds. Lastly, using radar data, the system must correlate an aircraft with the noise event. This ensures that the sound is not associated with a 'community noise event' such as a lawn mowers or emergency sirens.




| Monitor | 60-69 | 70-79 | 80-89 | 90+ | Totals |
|---|---|---|---|---|---|
| *1 - Golf Course | 5,556 | 3,002 | 167 | 7 | **8,732** |
| 2 - Hunters Hill | 393 | 42 | 10 | 0 | **445** |
| 3- Sagebrush Park | 113 | 7 | 0 | 1 | **121** |
| *4 - Airport East | 1,305 | 1,012 | 467 | 43 | **2,827** |
| 5 - Parker | 2,774 | 222 | 2 | 1 | **2,999** |
| 6 - Grandview Estates | 1,118 | 119 | 15 | 1 | **1,253** |
| 7 - Castle Rock | 862 | 38 | 1 | 0 | **901** |
| 8 - Meridian | 4,840 | 1,138 | 30 | 3 | **6,011** |
| 9 - Castle Pines | 301 | 17 | 0 | 0 | **318** |
| 10 - Lone Tree | 1,010 | 261 | 54 | 4 | **1,329** |
| 11 - State Park | 1,240 | 579 | 7 | 0 | **1,826** |
| 12 - Greenwood Village | 711 | 59 | 16 | 0 | **786** |
| P1 - Station 31 | 1,294 | 246 | 10 | 3 | **1,553** |
| Totals | 21,517 | 6,742 | 779 | 63 | **29,101** |



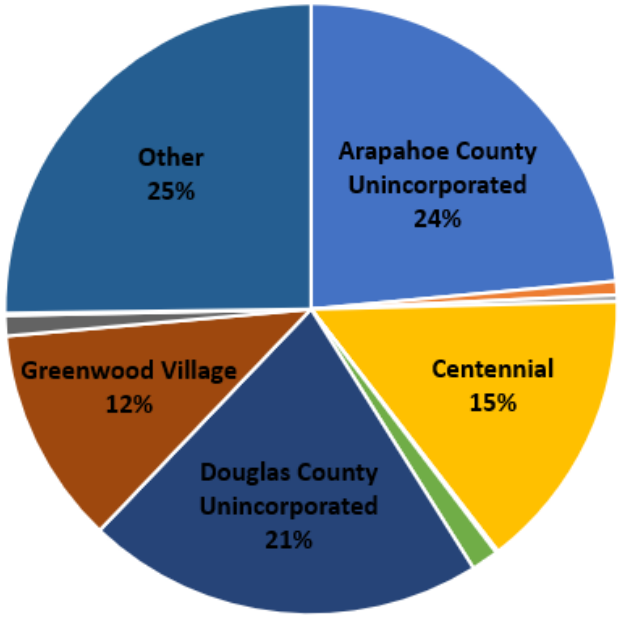
***NMT located on airport.***

**NMT Downtimes: NMT 9: 7/6 - 7/9; NMT 11: 7/21 - 7/29**

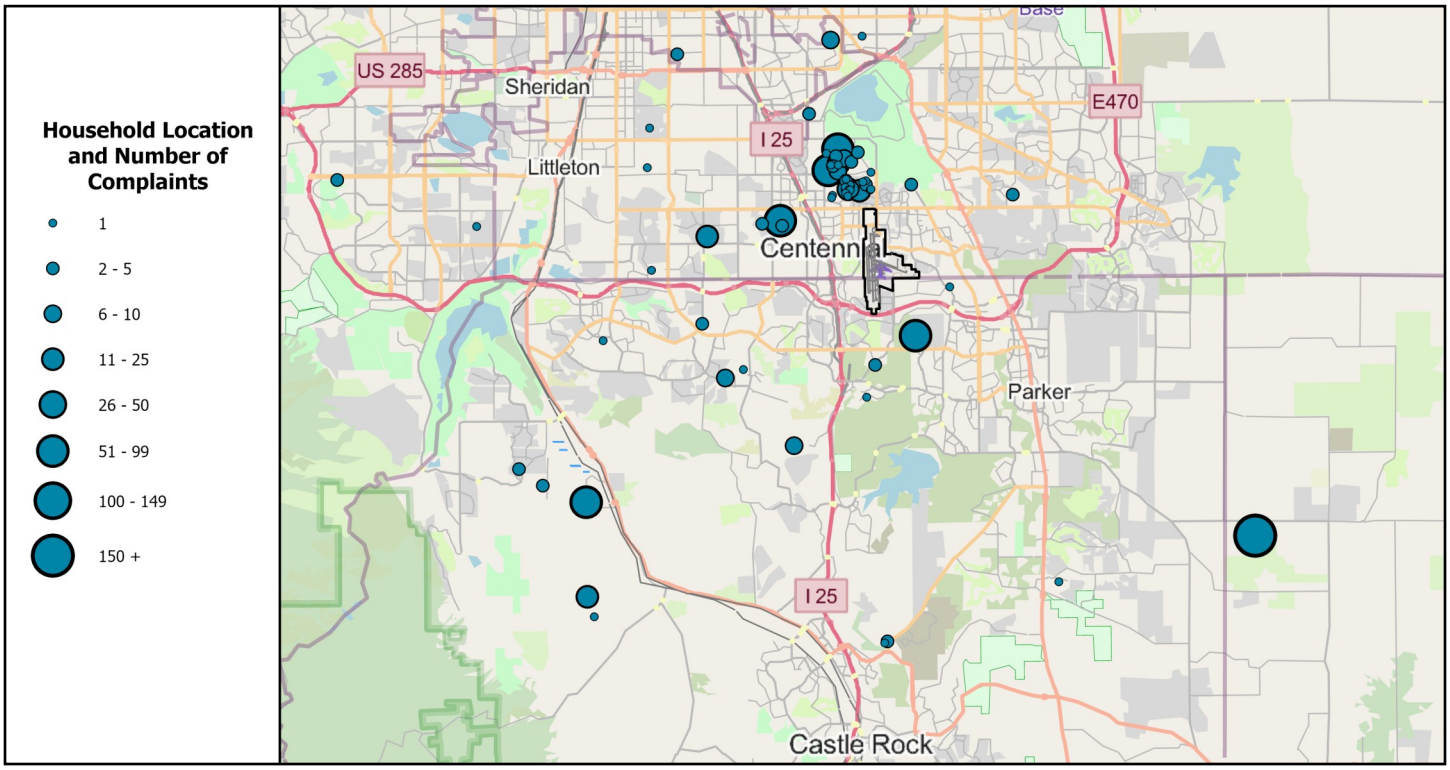
# 7. JULY 2025 Noise Complaint Statistics

| Municipality | Complaints | Households | Population |
|---|---|---|---|
| Arapahoe County Unincorporated | 197 | 24 | 98,066 |
| Aurora | 6 | 2 | 399,913 |
| Castle Pines | 0 | 0 | 14,000 |
| Castle Rock | 3 | 2 | 86,000 |
| Centennial | 125 | 7 | 108,422 |
| Cherry Hills Village | 1 | 1 | 6,442 |
| Denver | 12 | 2 | 715,522 |
| Douglas County Unincorporated | 176 | 10 | 276,493* |
| Greenwood Village | 96 | 13 | 15,691 |
| Highlands Ranch | 9 | 3 | 103,444 |
| Lone Tree | 1 | 1 | 14,253 |
| Parker | 0 | 0 | 68,000 |
| Other | 211 | 7 | - |
| Total | 837 | 70 | 1,906,246 |

## Complaints per Municipality




*Douglas County Unincorporated Population with Highlands Ranch Removed



# 7. JULY 2025 NOISE COMPLAINT STATISTICS CONT'D.

## Complaint by Aircraft Type

| | |
|---|---|
| Propeller | 87% |
| Jet | 11% |
| Helicopter | 2% |

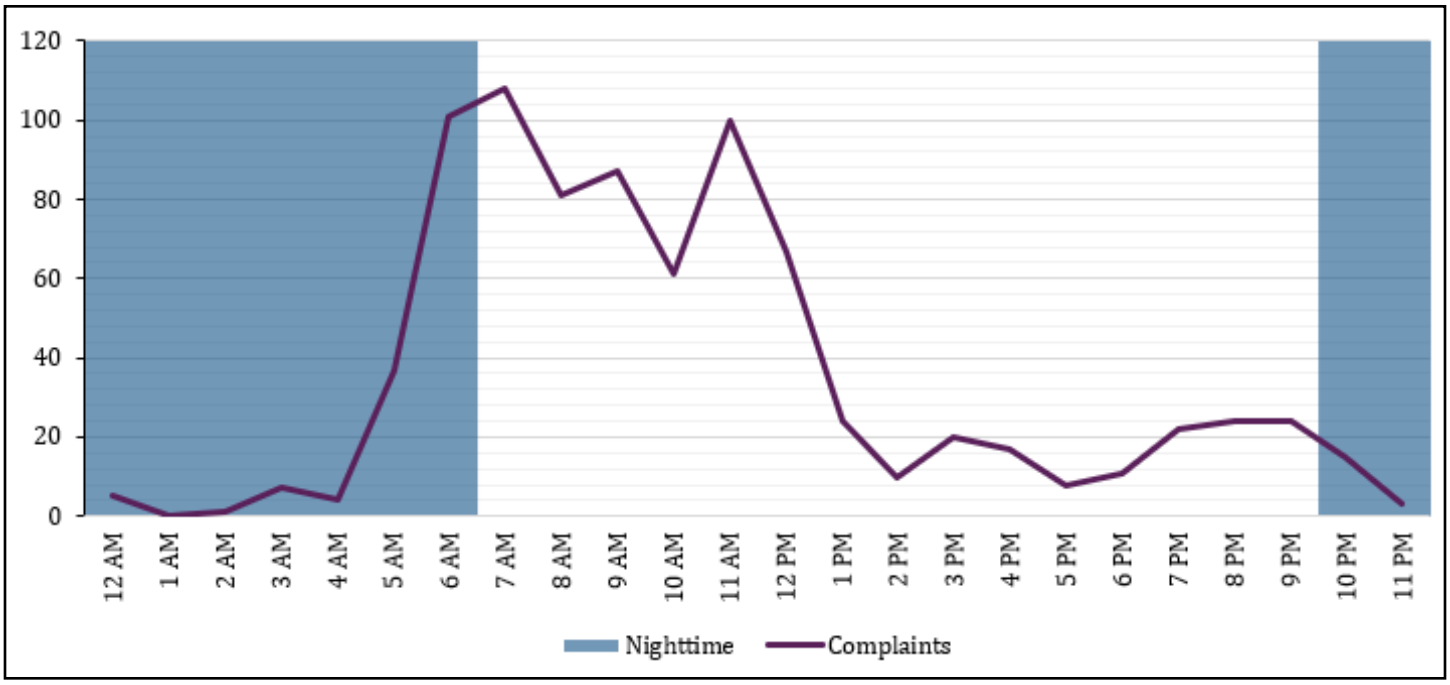
*#1 Household Removed

## Complaint by Operation Type

| | |
|---|---|
| Departures | 41% |
| Arrivals | 18% |
| Training | 41% |

*#1 Household Removed

## Complaints by Hour



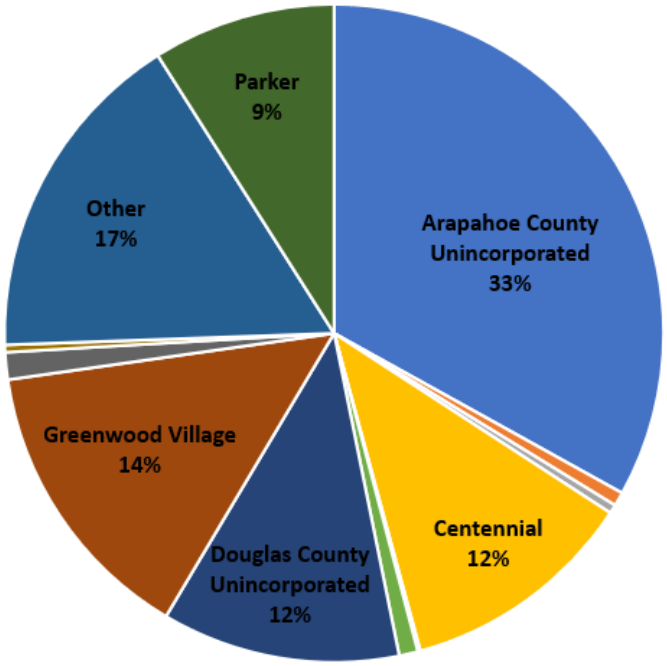

| Noise Complaint Responses Completed | |
|---|---|
| Email | 94 |
| Phone | 9 |
| Total | 103 |

| Time Complaint Received | |
|---|---|
| Day (7:00 AM—9:59 PM) | 664 |
| Night (10:00 PM—6:59 AM) | 173 |
| Total | 837 |

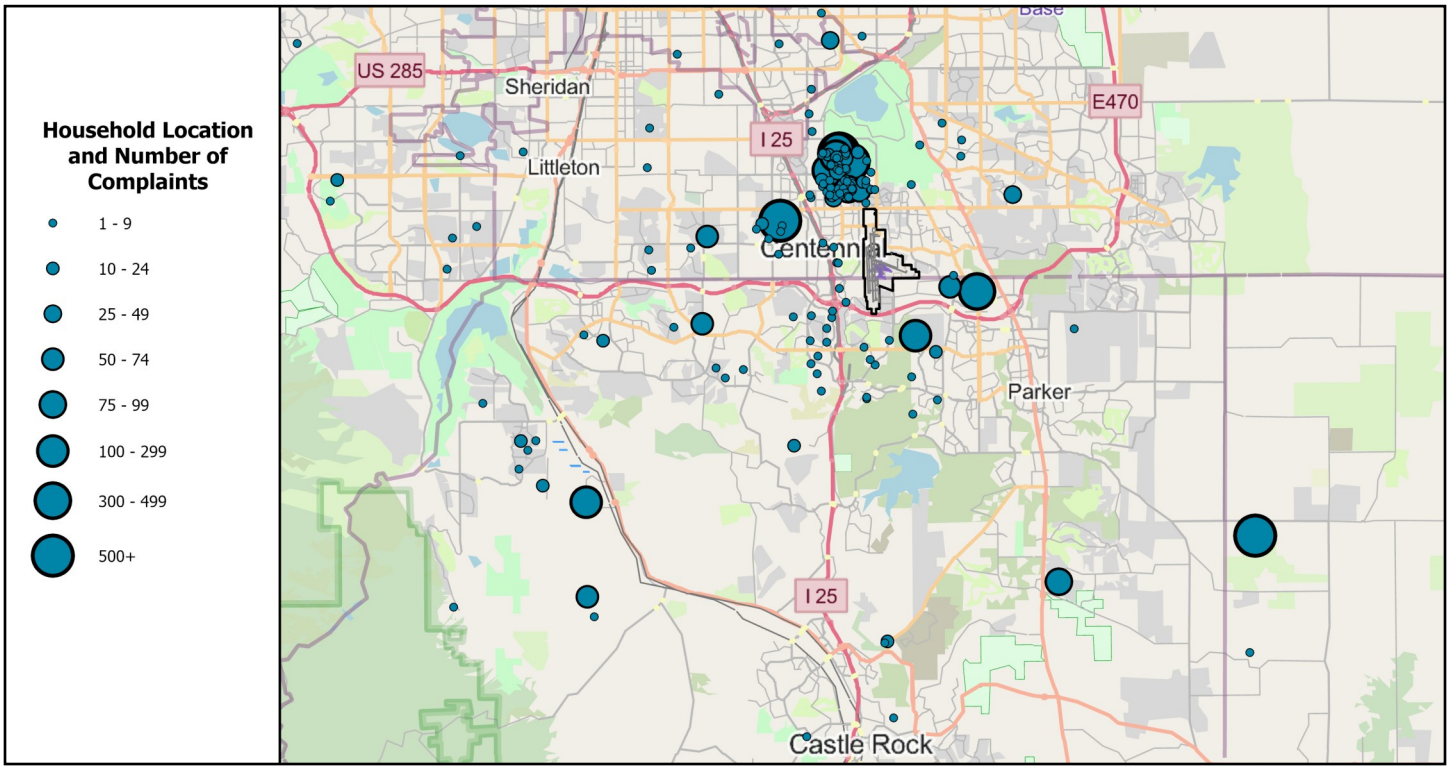
# 8. Year-To-Date 2025 Noise Complaint Statistics

| Municipality | Complaints | Households | Population |
|---|---|---|---|
| Arapahoe County Unincorporated | 1,836 | 51 | 98,066 |
| Aurora | 38 | 3 | 399,913 |
| Castle Pines | 0 | 0 | 14,000 |
| Castle Rock | 24 | 4 | 86,000 |
| Centennial | 644 | 16 | 108,422 |
| Cherry Hills Village | 7 | 2 | 6,442 |
| Denver | 51 | 8 | 715,522 |
| Douglas County Unincorporated | 649 | 24 | 276,493* |
| Greenwood Village | 790 | 39 | 15,691 |
| Highlands Ranch | 74 | 6 | 103,444 |
| Lone Tree | 20 | 13 | 14,253 |
| Parker | 499 | 4 | 68,000 |
| Other | 920 | 17 | - |
| Total | 5,552 | 181 | 1,906,246 |

## Complaints per Municipality




*Douglas County Unincorporated Population with Highlands Ranch Removed



# 8. Year-To-Date 2025 Noise Complaint Statistics

## Complaint by Aircraft Type

Propeller **90%**

Jet **9%**

Helicopter **1%**

*#1 Household Removed

## Complaint by Operation Type

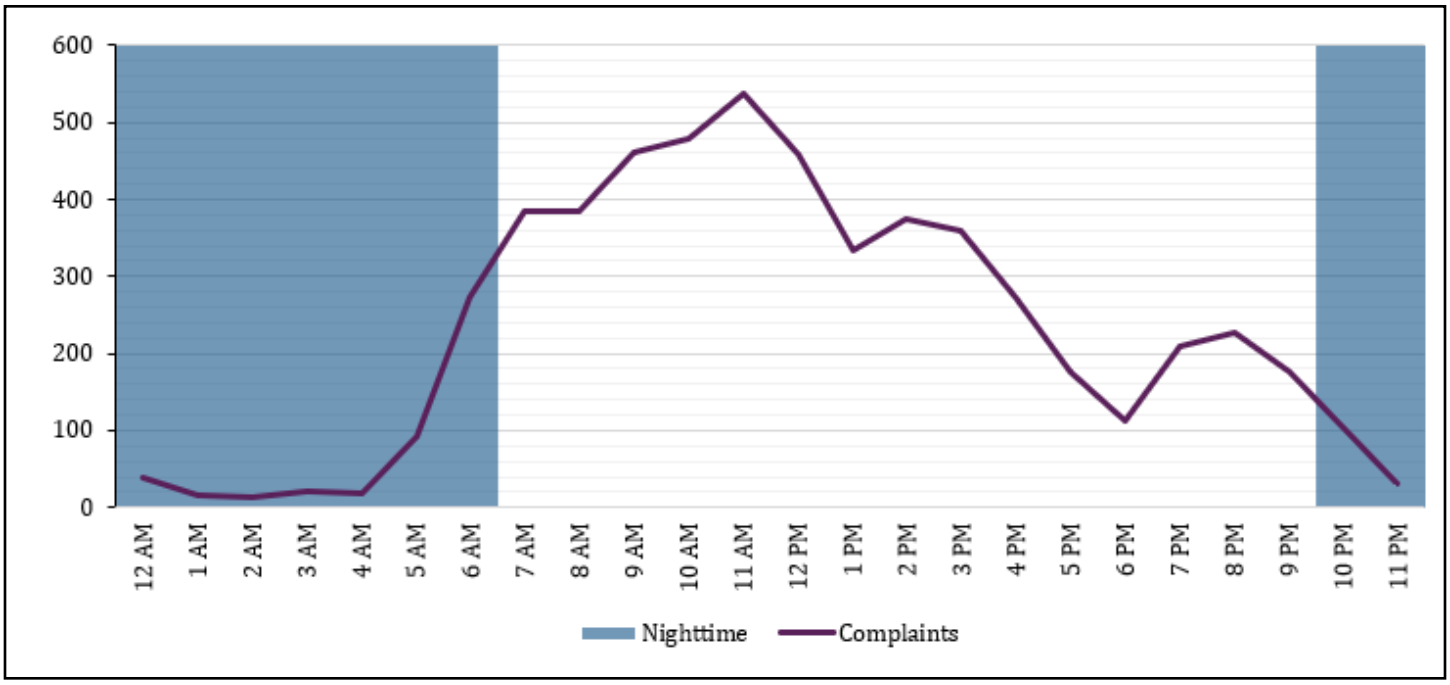
Departures **35%**

Arrivals **18%**

Training **47%**

*#1 Household Removed

## Complaints by Hour

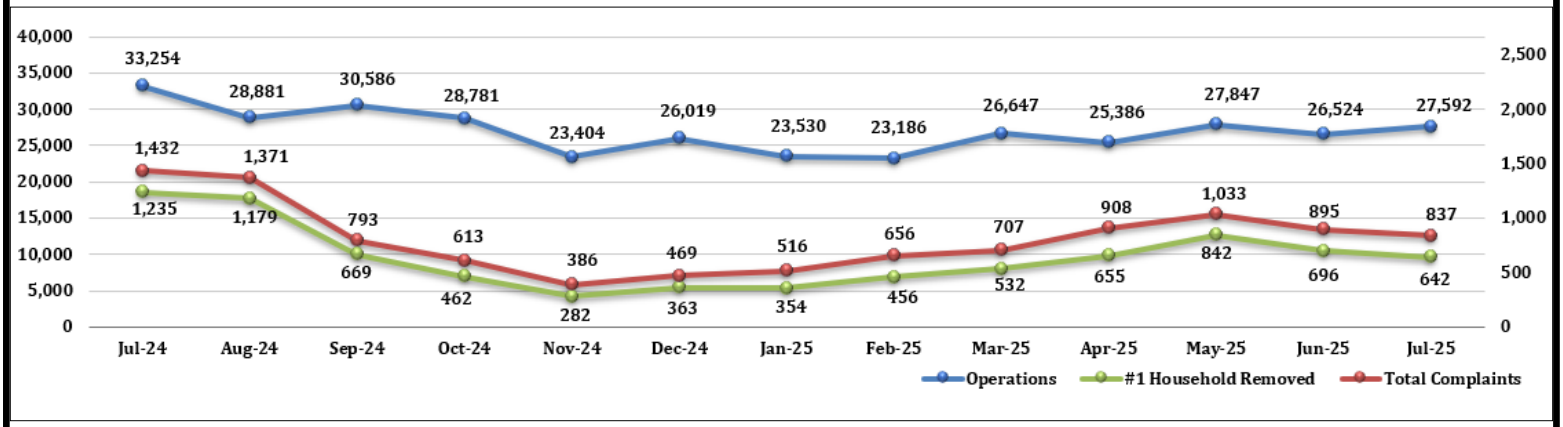



| Noise Complaint Responses Completed | |
|---|---|
| Email | 617 |
| Phone | 29 |
| Total | 646 |

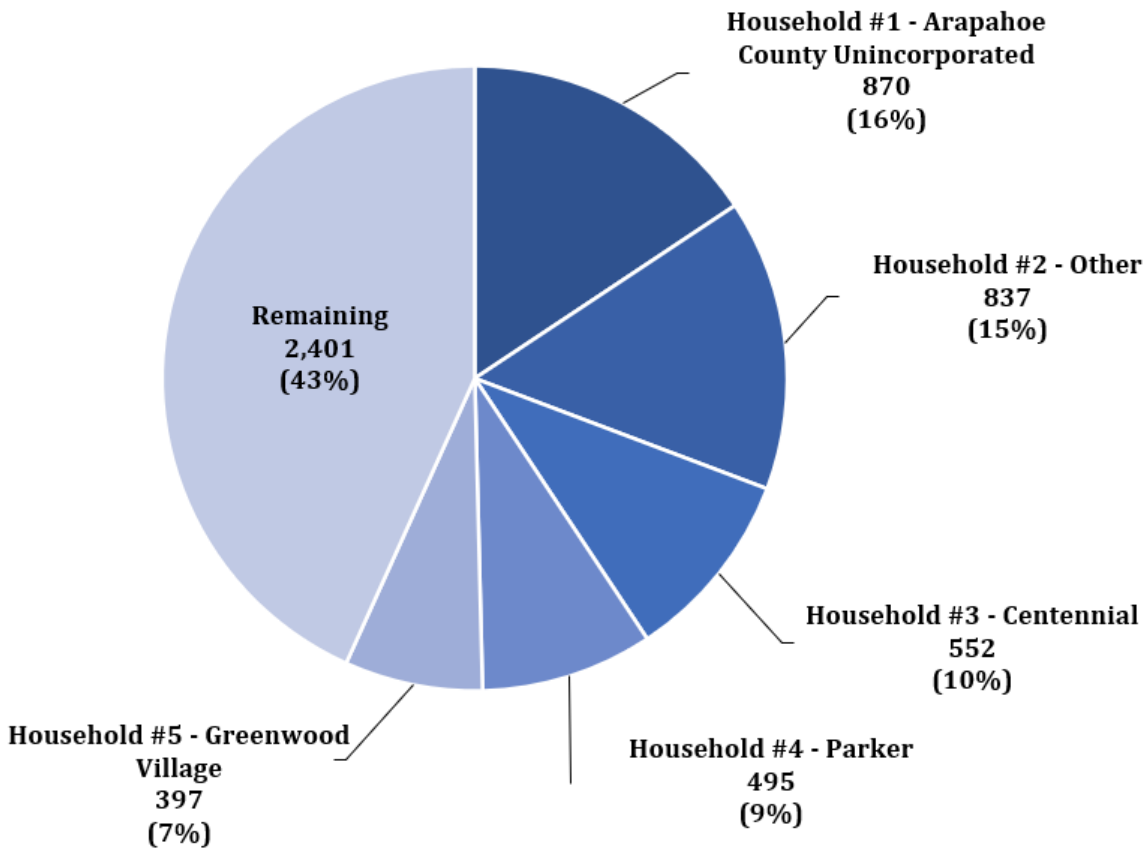
| Time Complaint Received | |
|---|---|
| Day (7:00 AM—9:59 PM) | 4,942 |
| Night (10:00 PM—6:59 AM) | 610 |
| Total | 5,552 |

# 8. Complaint Statistics

## 13-Month Trend



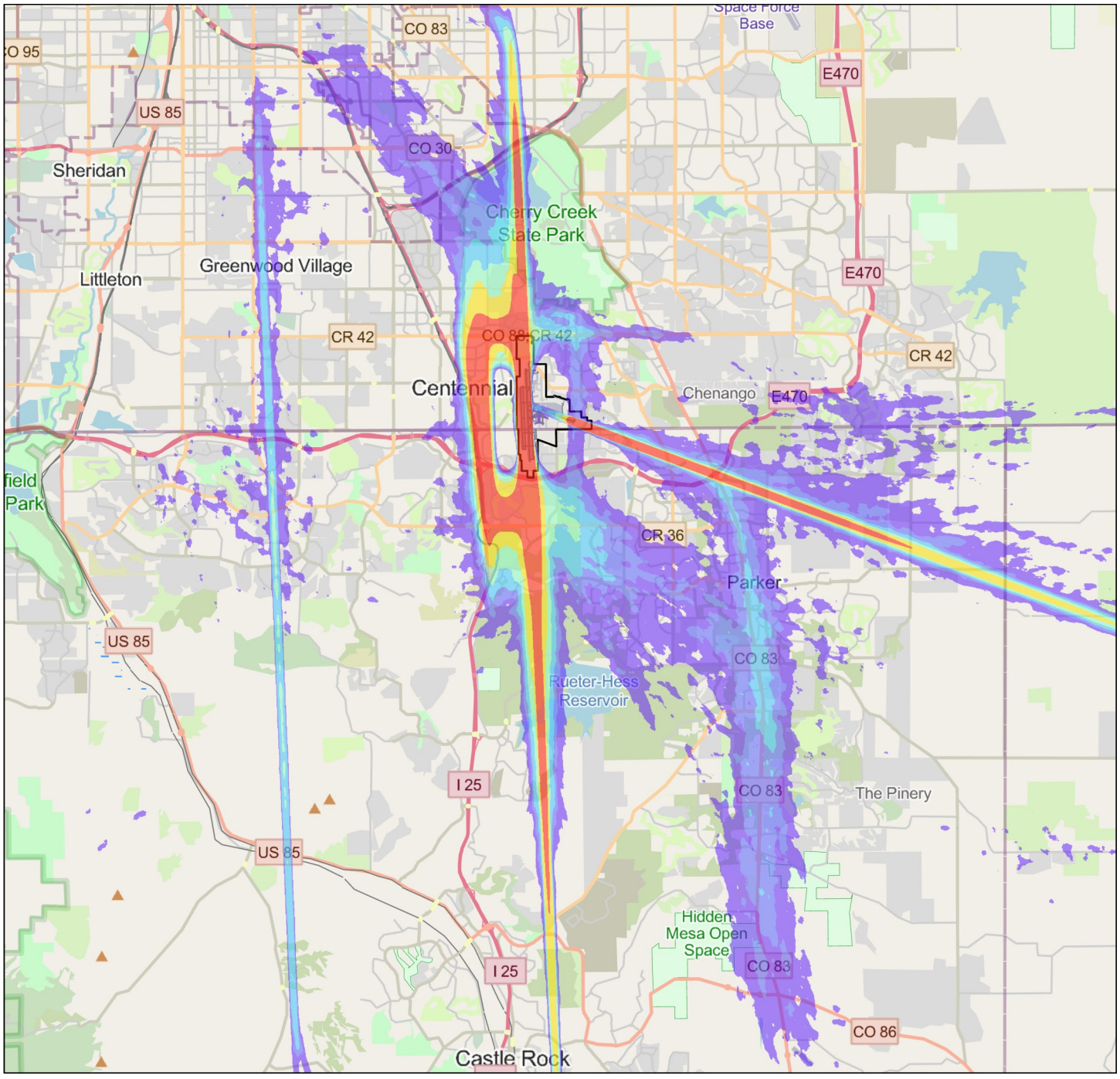

## Top 5 Household Complaints YTD



# 9. Centennial Airport Radar Track Density Map

This map takes all of the flight track data for the given time period and creates a line density plot. This enables everyone to have a better understanding of where the flight tracks are at, while allowing for historical comparisons. Dark red in the middle of the picture shows the highest density of flight tracks over the runways. The colors gradually move out to blue as the least dense.

## JULY 2025




Lower Density Traffic — Higher Density

# 10. Notes and Disclaimer

This report is for informational use only. Every effort has been made to ensure the accuracy of this data; however, the material may be altered as new information is added or updated in the system.

Centennial Airport disclaims any responsibility or liability for any direct or indirect damages resulting from the use of this data. We hope this information provides you with a valuable tool in which to review noise data and characteristics in your area. If you have questions or concerns, please contact the Centennial Airport Noise office at 303-790-0598.

CENTENNIAL AIRPORT

**Noise Hotline: 303-790-4709**

**www.centennialairport.com**