CENTENNIAL
AIRPORT

Centennial Airport
Monthly Noise Report

July 2024

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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.

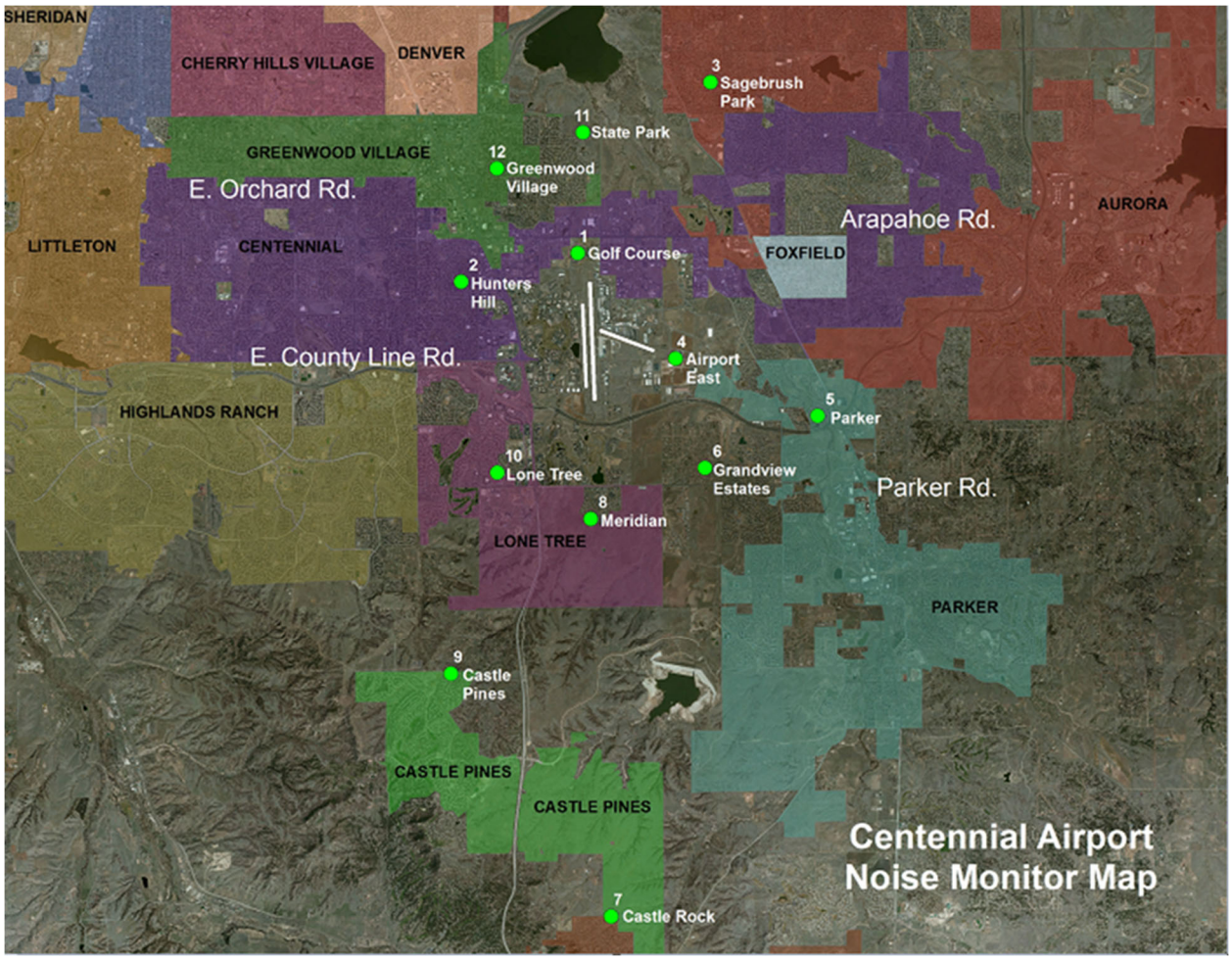
Overflight – Aircraft flight originating and terminating outside the area that transits the airspace without landing.

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.

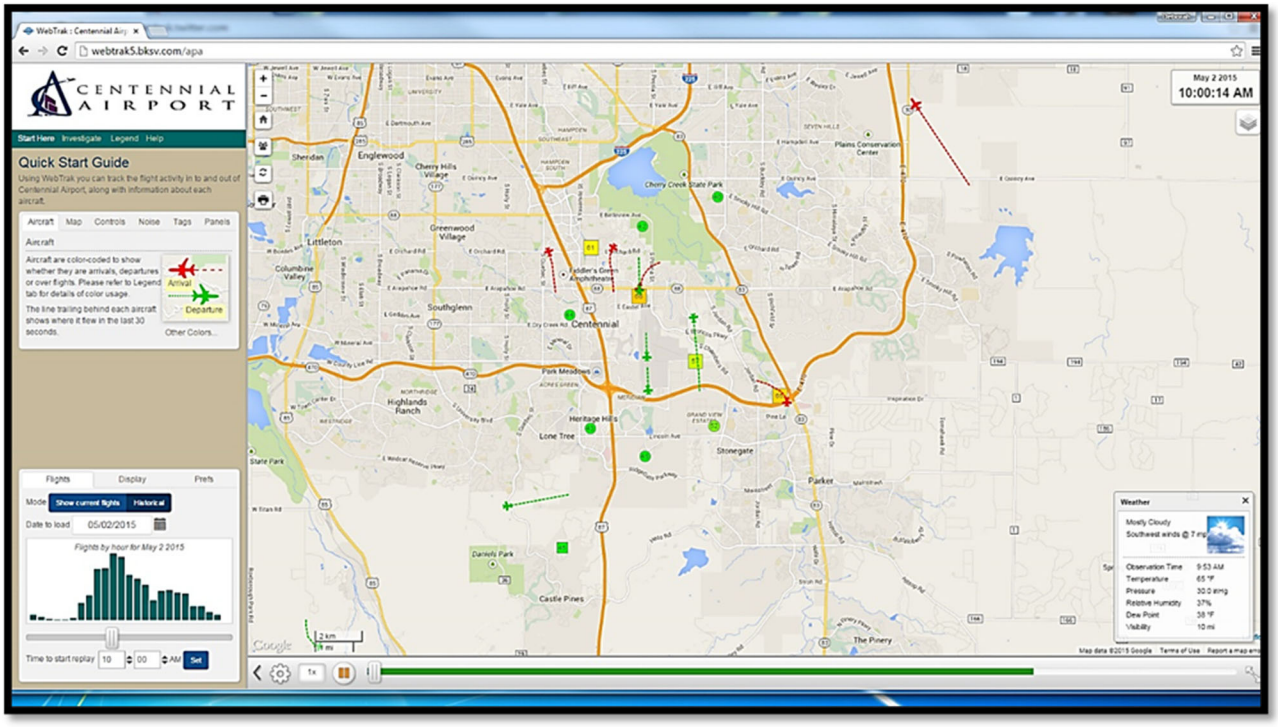
3. About APA's Noise Monitoring Program

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 now 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, Front Range Airport and Buckley Air 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:

APA WebTrak:

https://webtrak.emsbk.com/apa?fbclid=IwAR1xnXwQ2sVwisSZ_szUAlHFtyYBNIZTACOI1PF7ZSH8PPbBxORnnaidUUE

Centennial Airport Website: http://www.centennialairport.com

In addition, noise complaints can also be submitted on our noise hotline:

APA Noise Hotline:
303-790-4709

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	2,483	2,640	172	5,295	1,607	5,408	132	7,147	13,881	2	13,883
February	2,374	2,702	161	5,237	1,709	5,384	83	7,176	13,797	2	13,799
March	2,527	2,771	133	5,431	1,947	6,487	89	8,523	16,676	13	16,689
April	2,247	2,606	140	4,993	1,592	5,580	105	7,277	15,502	29	15,531
May	2,659	2,833	164	5,656	1,933	6,068	112	8,113	15,677	24	15,701
June	2,743	2,961	190	5,894	2,145	6,599	97	8,841	14,805	5	14,810
July	2,618	3,056	230	5,904	2,301	7,138	140	9,579	17,631	10	17,641
August				0				0			0
September				0				0			0
October				0				0			0
November				0				0			0
December				0				0			0
Y-T-D Totals	**17,651**	**19,569**	**1,190**	**38,410**	**13,234**	**42,664**	**758**	**56,656**	**107,969**	**85**	**108,054**

	IFR OVERFLIGHTS				VFR OVERFLIGHTS					TOTAL
	AIR TAXI	G.A.	MILITARY	TOTAL INTINERANT	AIR TAXI	G.A.	MILITARY	TOTAL		OPERATIONS
January	3	4	4	11	35	61	12	108	January	26,444
February	4	8	1	13	21	36	5	62	February	26,287
March	0	10	1	11	31	31	6	68	March	30,722
April	3	5	3	11	39	47	4	90	April	27,902
May	8	7	0	15	16	60	6	82	May	29,567
June	4	5	1	10	21	61	7	89	June	29,644
July	3	12	5	20	14	91	4	109	July	33,253
August				0				0	August	
September				0				0	September	
October				0				0	October	
November				0				0	November	
December				0				0	December	
Y-T-D Totals	**25**	**51**	**15**	**91**	**177**	**387**	**44**	**608**	**Y-T-D Totals**	**203,819**

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 Reports

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:

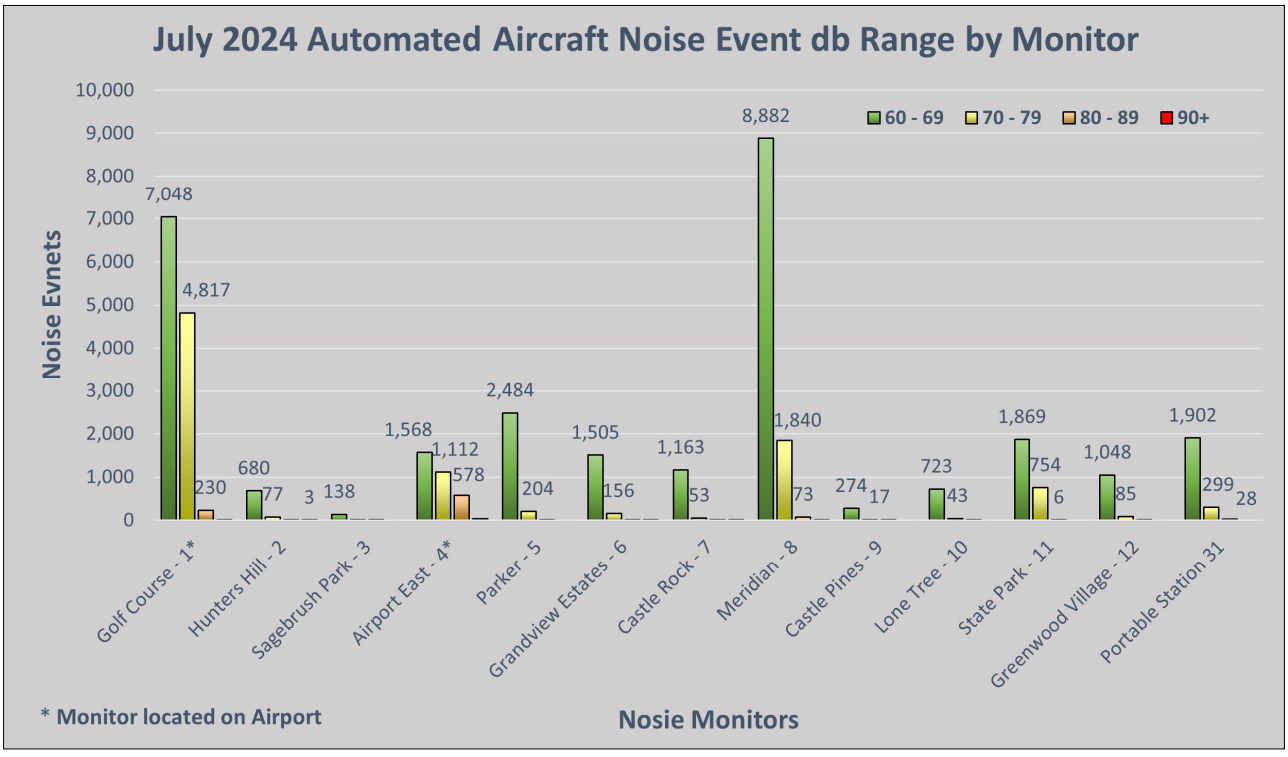
First, the noise event must exceed the ambient noise level. This number varies at every monitor, but is generally greater than 50-55db. Secondly, the noise event must last longer than 5 seconds. Lastly, using radar data, the system must correlate an aircraft with the noise event. This ensures that the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

The information below reflects only aircraft noise events as described above.

Automated Aircraft Noise Event Decibel Range

Monitor	60-69	70-79	80-89	90+
Golf Course- 1*	7,048	4,817	230	10
Hunters Hill- 2	680	77	12	3
Sagebrush Park- 3	138	10	3	0
Airport East- 4*	1,568	1,112	578	33
Parker- 5	2,484	204	6	0
Grandview Estates- 6	1,505	156	15	1
Castle Rock- 7	1,163	53	2	1
Meridian- 8	8,882	1,840	73	5
Castle Pines- 9	274	17	1	0

***Monitor located on Airport**



7. July 2024 Noise Complaint Statistics

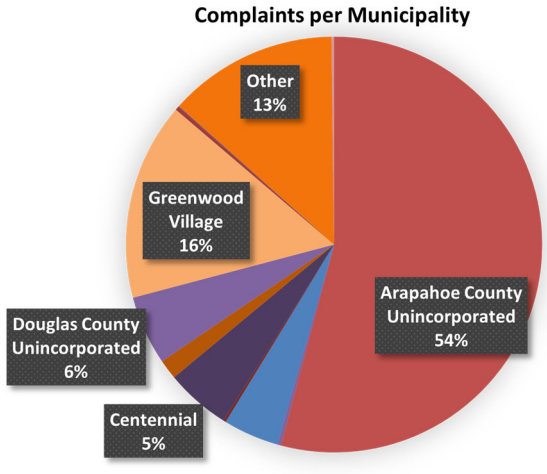
In July, Centennial Airport received 1,439 complaints from 93 households

July Noise Complaints			YTD		Population
Municipality	**Complaints**	**Households**	**Complaints**	**Households**	
Arapahoe County Unincorporated	775	34	3,918	90	98,066
Aurora	4	1	28	5	399,913
Castle Pines	62	1	66	2	14,000
Castle Rock	3	3	54	5	86,000
Centennial	72	4	663	9	108,422
Cherry Hills Village	0	0	0	0	6,442
Denver	22	1	207	3	715,522
Douglas County Unincorporated	77	9	330	15	276,493*
Greenwood Village	220	18	2,260	63	15,691
Highlands Ranch	4	4	11	7	103,444
Lone Tree	1	1	20	10	14,253
Parker	3	3	28	7	68,000
Other	189	11	694	27	UNK
Total	1,432	90	8,279	243	**1,906,246**

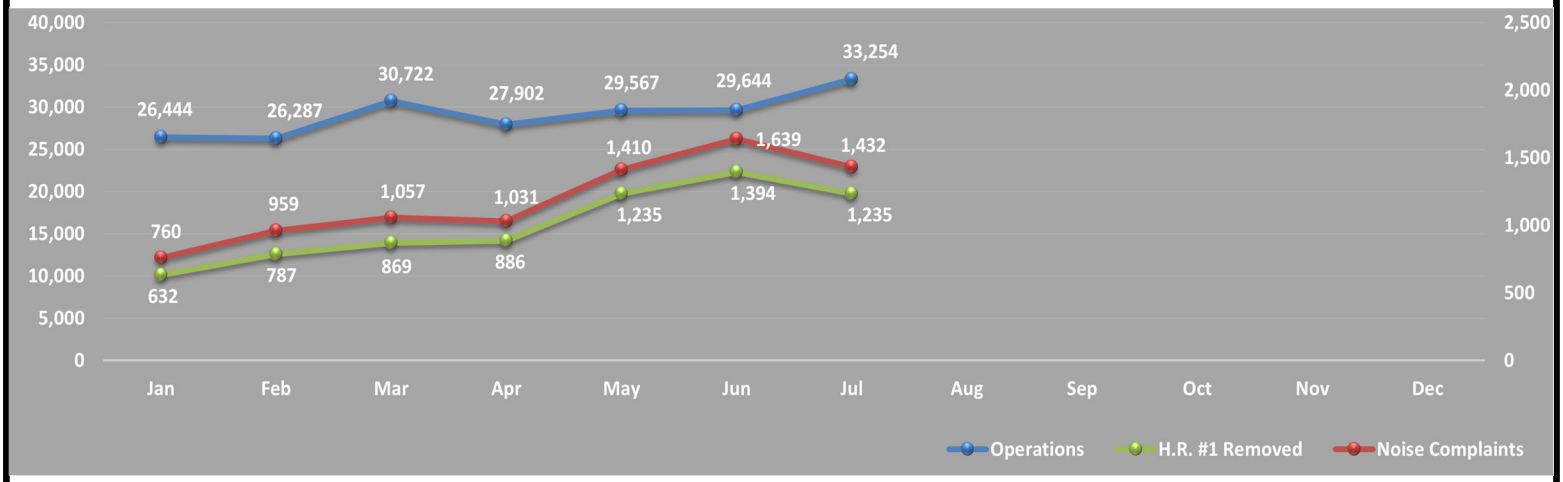
*Douglas County Unincorporated Population with Highlands Ranch Removed

July 2024 Noise Complaint Responses Completed	
Email	133
Phone	14
Total	147

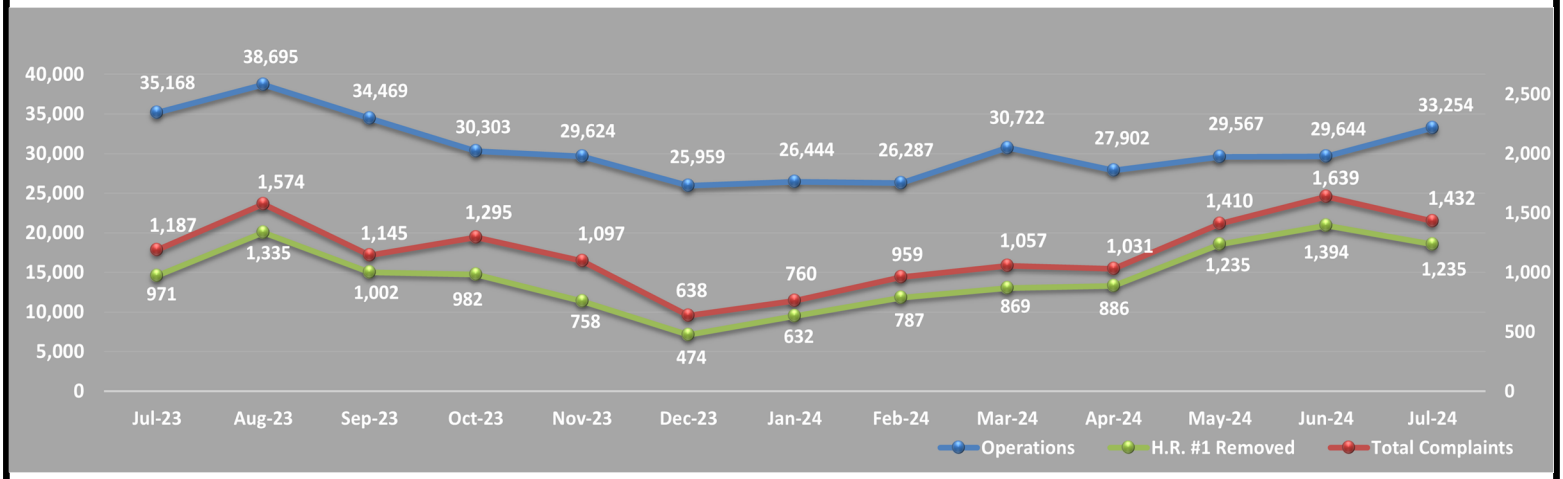
Time Complaint Received	July
Day Hours (7:00 am - 9:59pm)	1,161
Night Hours (10:00 pm - 6:59 am)	271
TOTAL	1,432

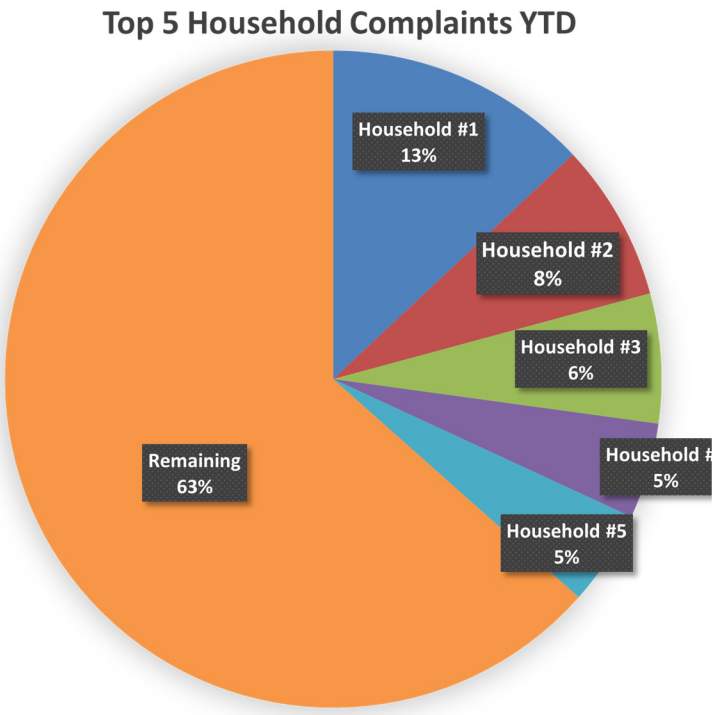


Current 12 Month Trend



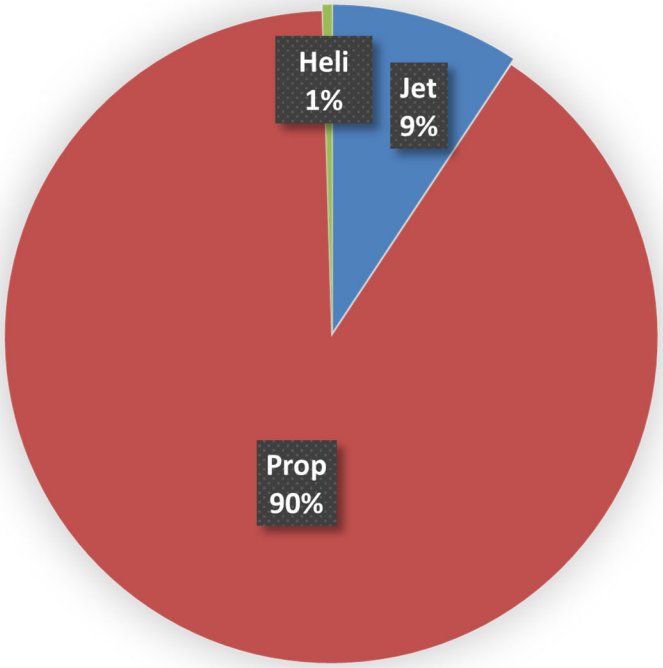
Previous Year 13 Month Trend





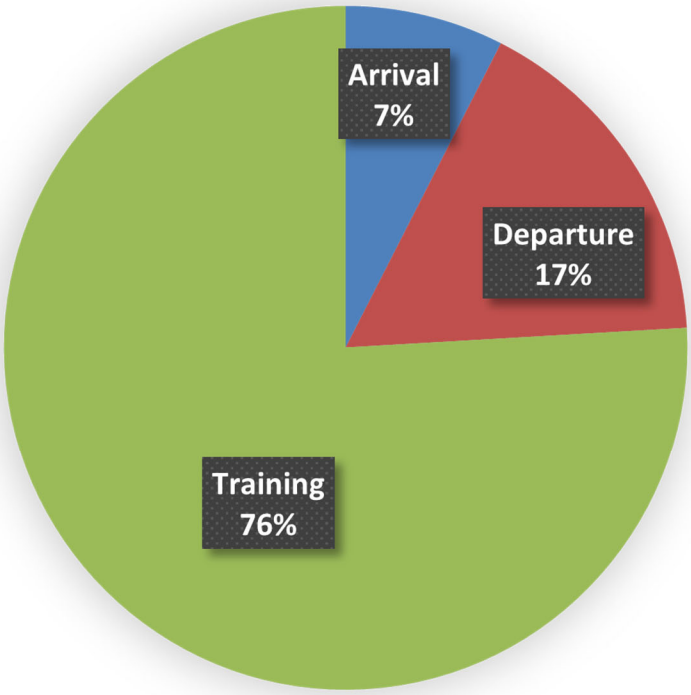
Top 5 Household Complaints YTD		
Household	**Complaints**	**Resides In**
Household #1	1,079	Arapahoe County
Household #2	644	Centennial
Household #3	528	Other (Elizabeth)
Household #4	391	Greenwood Village
Household #5	387	Arapahoe County
Remaining	5,250	
Total	**8,279**	

Complaints by Aircraft Type

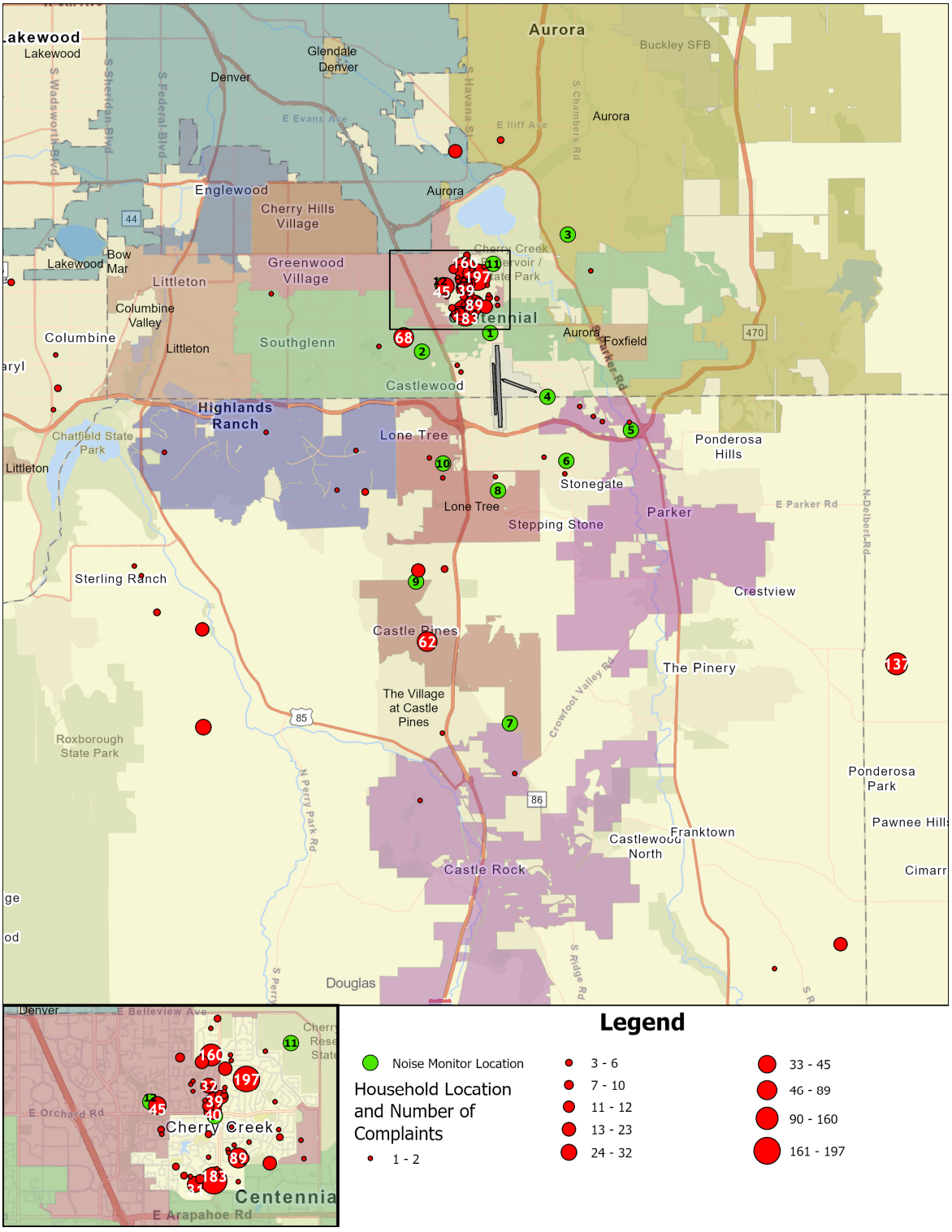


*#1 Household Removed

Complaints by Operation Type



8. Centennial Airport Complaint Map



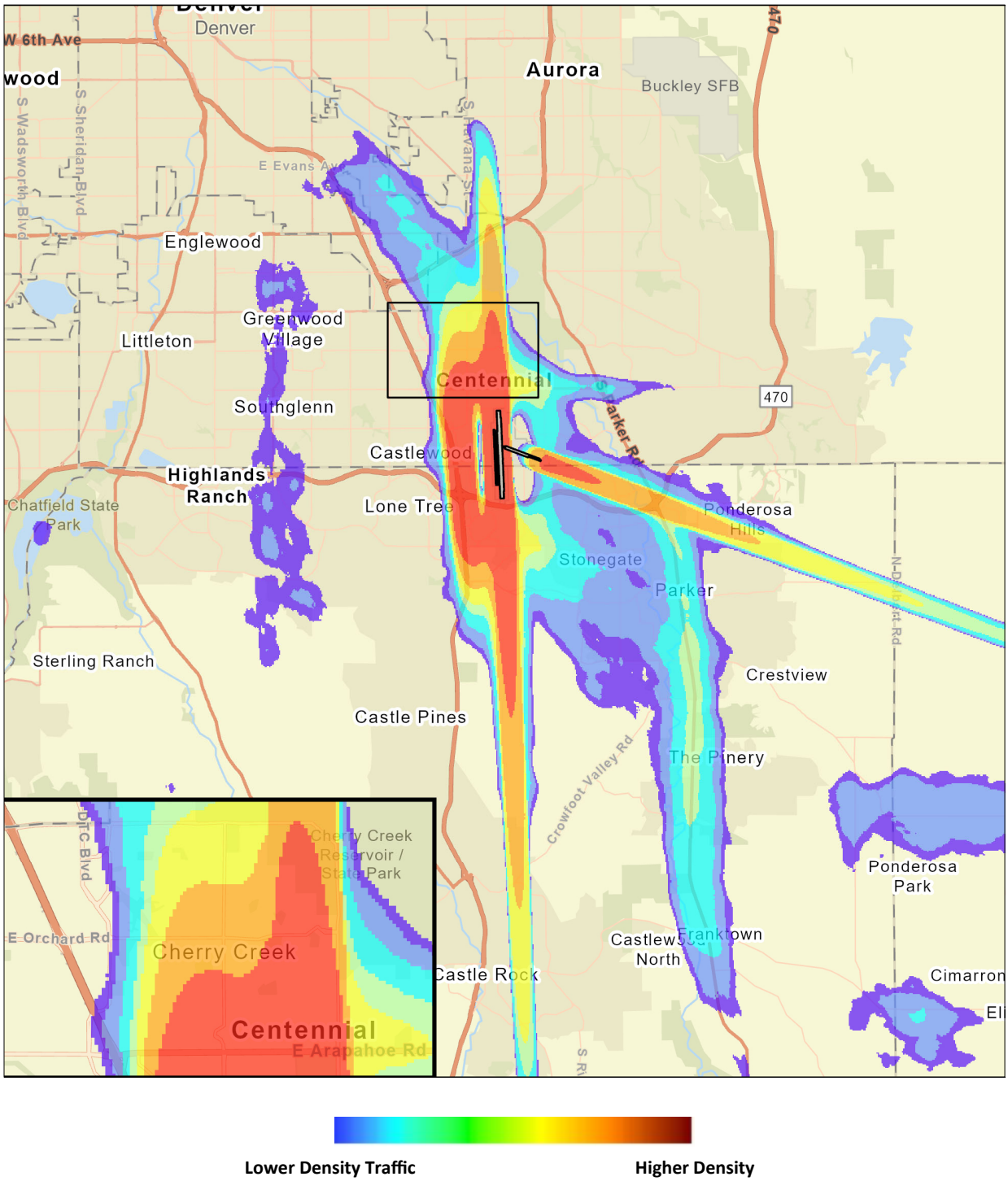
**Larger dots equate to more complaints for that household.

**3 households not visible in map view.

9. Centennial Airport Radar Track Density Map

The following maps take all of the flight track data for the given time period and create 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 2024 Flight Tracks associated with Centennial Airport



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