

Summary of Measured Noise Levels in the Town of Superior, Colorado due to Rocky Mountain Metropolitan Airport Operations

December 2025



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Monthly Summary – December 2025 (Water Bladder Site)

The following summarizes the daytime noise levels measured at the Water Bladder measurement location located off S. Torreys Peak Dr. and aircraft operations detected over the Town of Superior for the month of December 2025. Additional information regarding the measurements follows.

- Over the entire month, a total of 4,930 aircraft operations¹ occurred within 1.25 miles of the measurement location (the distance within which aircraft are audible).
- Of these, 2,086 were touch and go (T&G) operations (42%).
- Over the entire month, aircraft operations were clearly noticeable (aircraft noise measured at approximately 5 dBA above the ambient sound level) for 2,991 minutes (50 hours).
- If T&G operations were not conducted at the airport, an analysis of the measurement data indicates that noticeable aircraft operations would decrease to 1,573 minutes (26 hours), which is a 47% reduction.
- The following summarizes the December 2025 noise survey results at the Water Bladder.

**Table 1 - Summary of Daytime Measured Noise Levels and Aircraft Operations, December 2025
(Water Bladder)**

Operations	Quantity	Audible Aircraft Operations	Aircraft Noise Above Ambient (dBA)	Aircraft 5 dBA Above Ambient (minutes)	Aircraft 10 dBA Above Ambient (minutes)	Aircraft 20 dBA Above Ambient (minutes)
All	Total for month	4,930	---	2,991	1,510	203
	Daily average	159	15	111	56	8
Touch and Go Removed	Total for month	3,248	---	1,573	851	138
	Daily average	105	14	58	32	5

- Figure 1 shows the flight paths on December 26, a day with total operations close to the median for the month. Note the concentration of T&G operations over the Town of Superior and Boulder County.
- Figure 2 shows the measured noise levels and concurrent aircraft activity for this day. Note there were higher than usual ambient noise levels on many days this month (including December 26) due to water bladder pumping operations. Maximum noise levels generated by individual aircraft operations exceeded the ambient sound level by at least the following levels for the durations noted:
 - 5 dBA (clearly noticeable), 89 minutes.
 - 10 dBA (significant increase), 35 minutes.
 - 20 dBA (much louder), 6 minutes.
- Table 2 shows the hourly average noise levels and operation counts for this day.
- Figure 3 shows an example hour for this day.
- Figure 4 shows the flight paths for the entire month of December 2025.

¹ This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch and go operation as two operations.

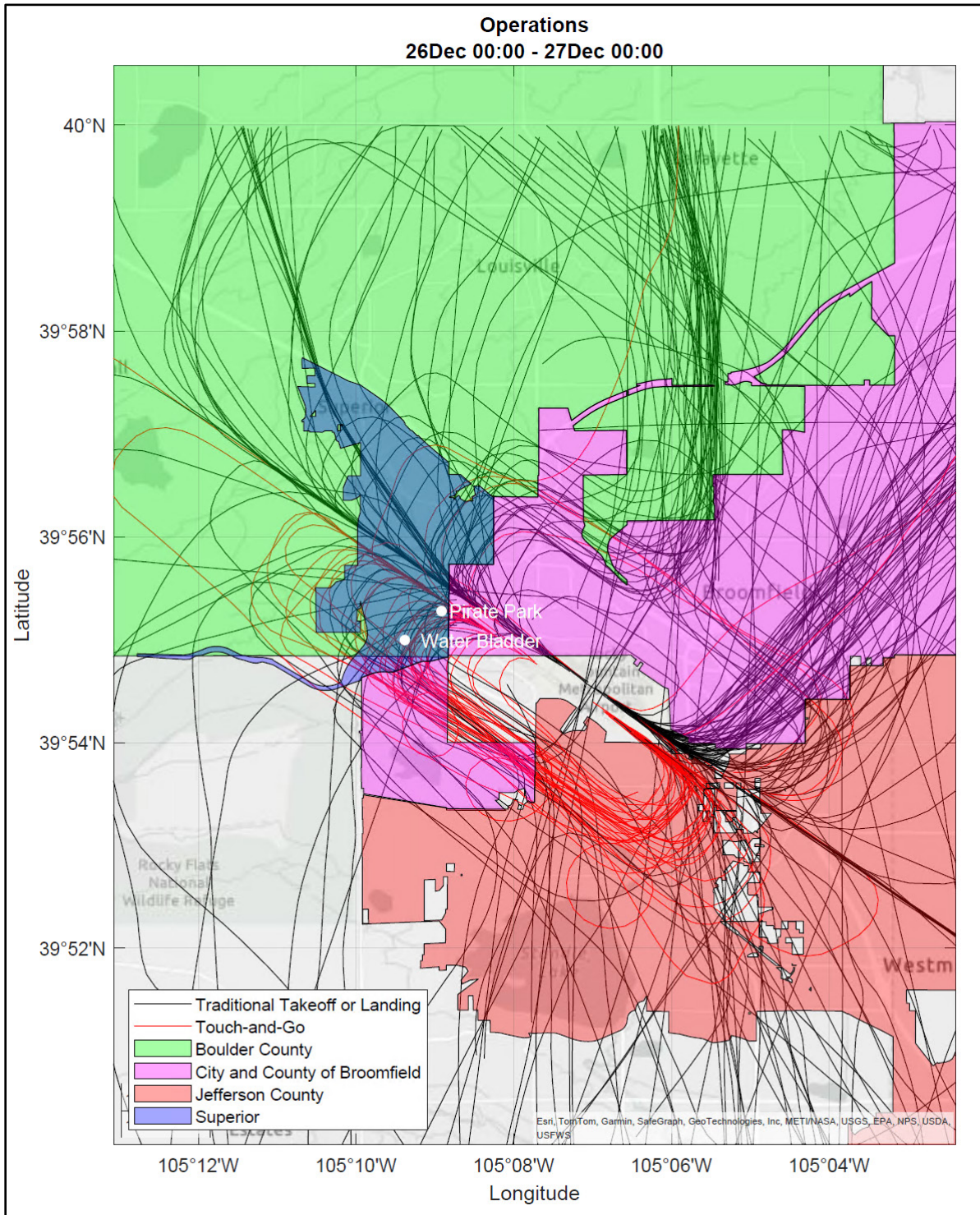


Figure 1 – Flight Paths on Median Day in December 2025 (255 Operations; 42 T&G)

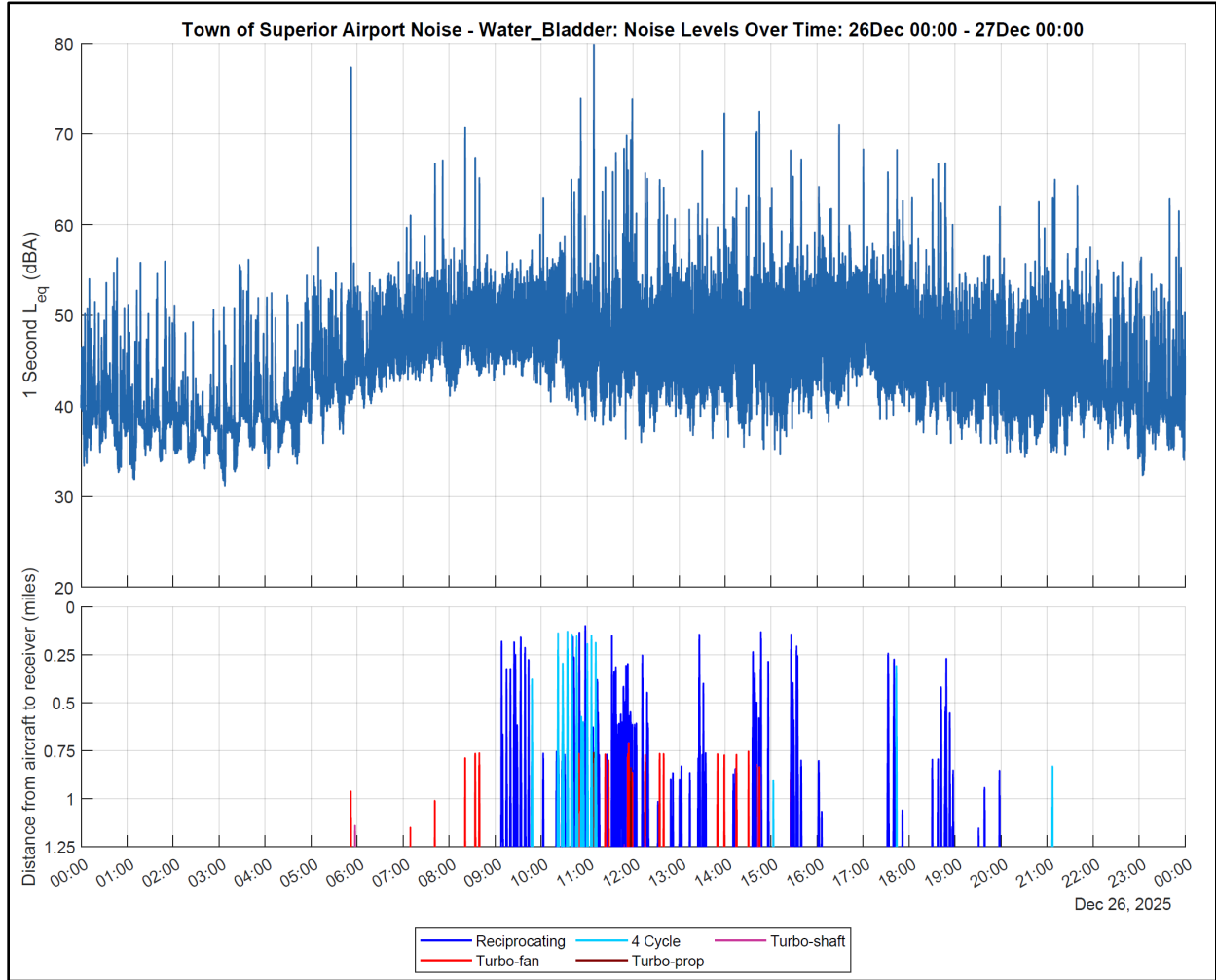


Figure 2 – Noise Levels and Aircraft Operations on Median Day (Water Bladder)

Table 2 – Hourly Noise Levels and Aircraft Operations on Median Day (Water Bladder)

Time	7 am	8 am	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm
Average Noise Level (dBA)	49	50	49	51	56	49	50	51	50	50	50	50	46	46	47
Number of Operations	4	8	23	27	49	29	22	32	19	9	6	11	5	5	2

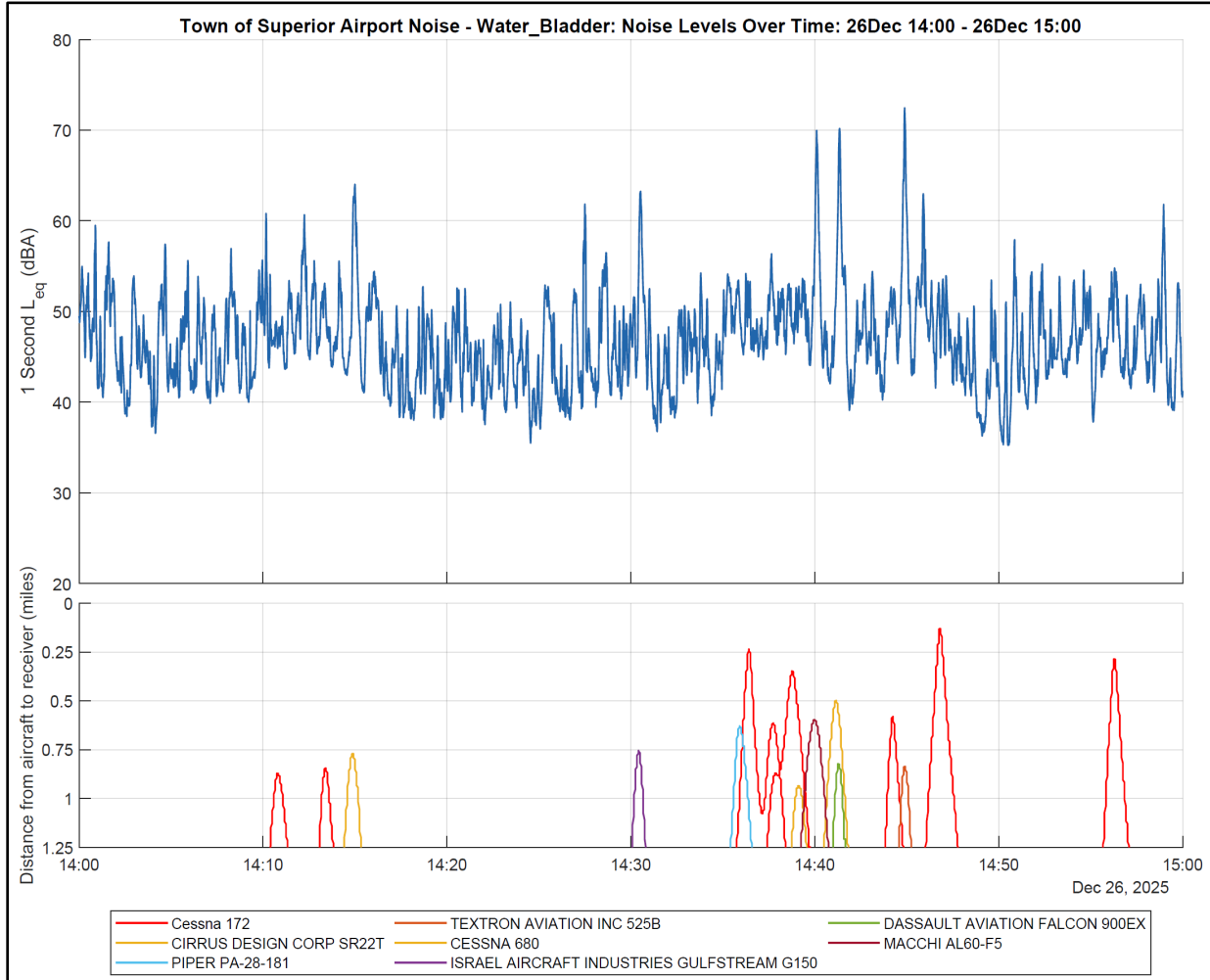


Figure 3 – Noise Levels and Aircraft Operations during an Example Hour on Median Day (Water Bladder)

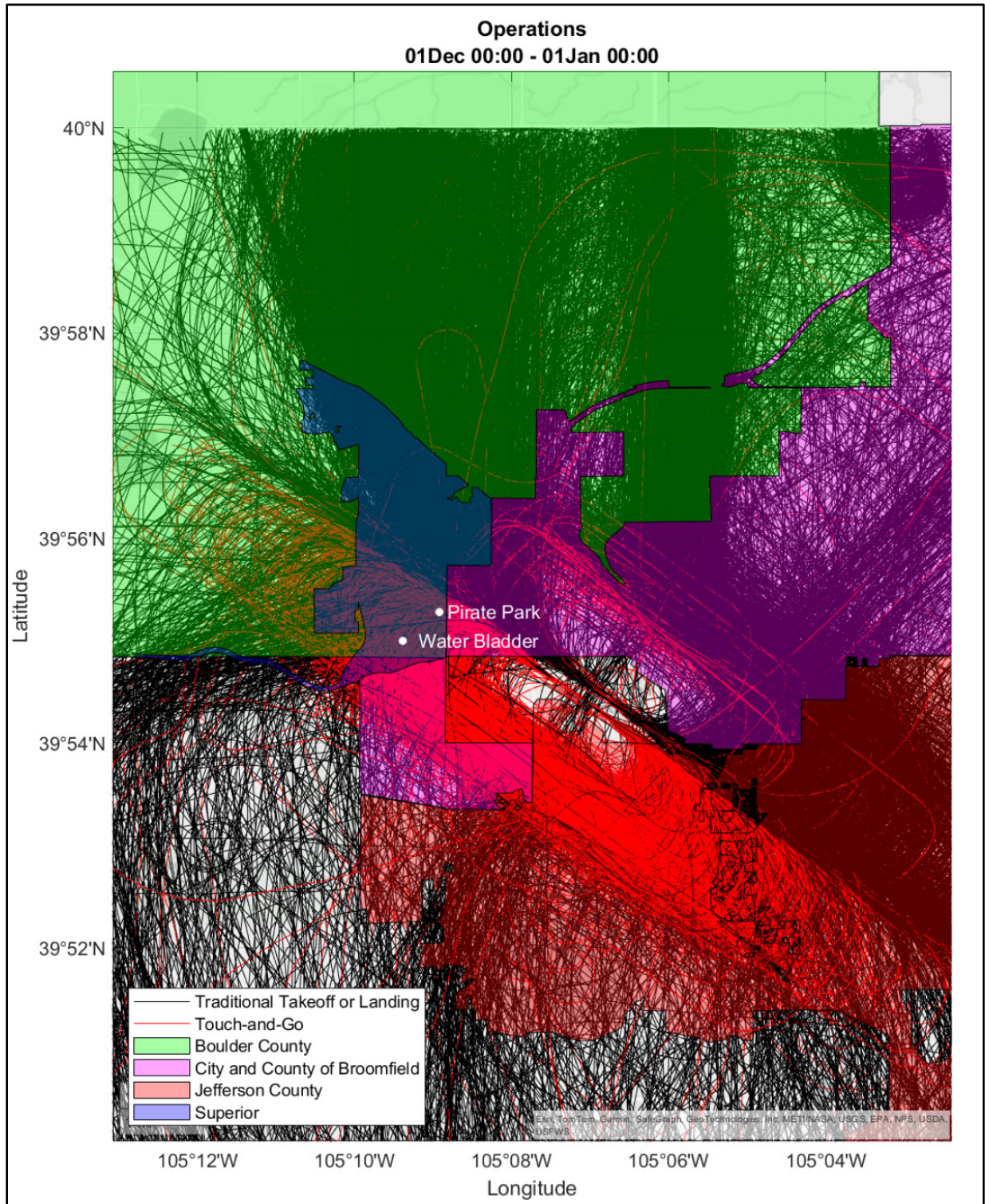


Figure 4 – All Flight Paths in December 2025 (9,270 Operations; 2,319 T&G)

Monthly Summary – December 2025 (Pirate Park Site)

The following summarizes the daytime noise levels measured at the Pirate Park measurement location located near Pirate Park off Yarrow Circle and aircraft operations detected over the Town of Superior for the month of December 2025. Additional information regarding the measurements follows.

- Over the entire month, a total of 5,508 aircraft operations² occurred within 1.25 miles of the measurement location (the distance within which aircraft are audible).
- Of these, 2,145 were touch and go (T&G) operations (39%).
- Over the entire month, aircraft operations were clearly noticeable (aircraft noise measured at approximately 5 dBA above the ambient sound level) for 4,413 minutes (74 hours).
- If T&G operations were not conducted at the airport, an analysis of the measurement data indicates that noticeable aircraft operations would decrease to 2,732 minutes (46 hours), which is a 38% reduction.
- The following summarizes the December 2025 noise survey at Pirate Park. Note the number of minutes that aircraft noise was 20 dBA above ambient is much higher than at the Water Bladder site due to the closer proximity to the runway and the lower, climbing aircraft.

Table 3 - Daytime Measured Noise Levels and Aircraft Operations, December 2025 (Pirate Park)

Operations	Quantity	Audible aircraft operations	Aircraft noise above ambient (dBA)	Aircraft 5 dBA Above Ambient (minutes)	Aircraft 10 dBA Above Ambient (minutes)	Aircraft 20 dBA Above Ambient (minutes)
All	Total for month	5,508	---	4,413	3,333	991
	Daily average	178	21	170	128	38
Touch and Go Removed	Total for month	3,803	---	2,732	2,067	545
	Daily average	123	18	105	79	21

- Figure 5 shows the measured noise levels and concurrent aircraft activity for December 26, a day with total operations close to the median for the month. Maximum noise levels generated by individual aircraft operations exceeded the ambient sound level by at least the following levels for the durations noted:
 - 5 dBA (clearly noticeable), 101 minutes.
 - 10 dBA (significant increase), 62 minutes.
 - 20 dBA (much louder), 12 minutes.
- Table 4 shows the hourly average noise levels and operation counts for this day.
- Figure 6 shows an hour on this day, during which time the measured noise level was often above ambient conditions (35 dBA for this hour), meaning that aircraft noise was regularly present.

² This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch and go operation as two operations.

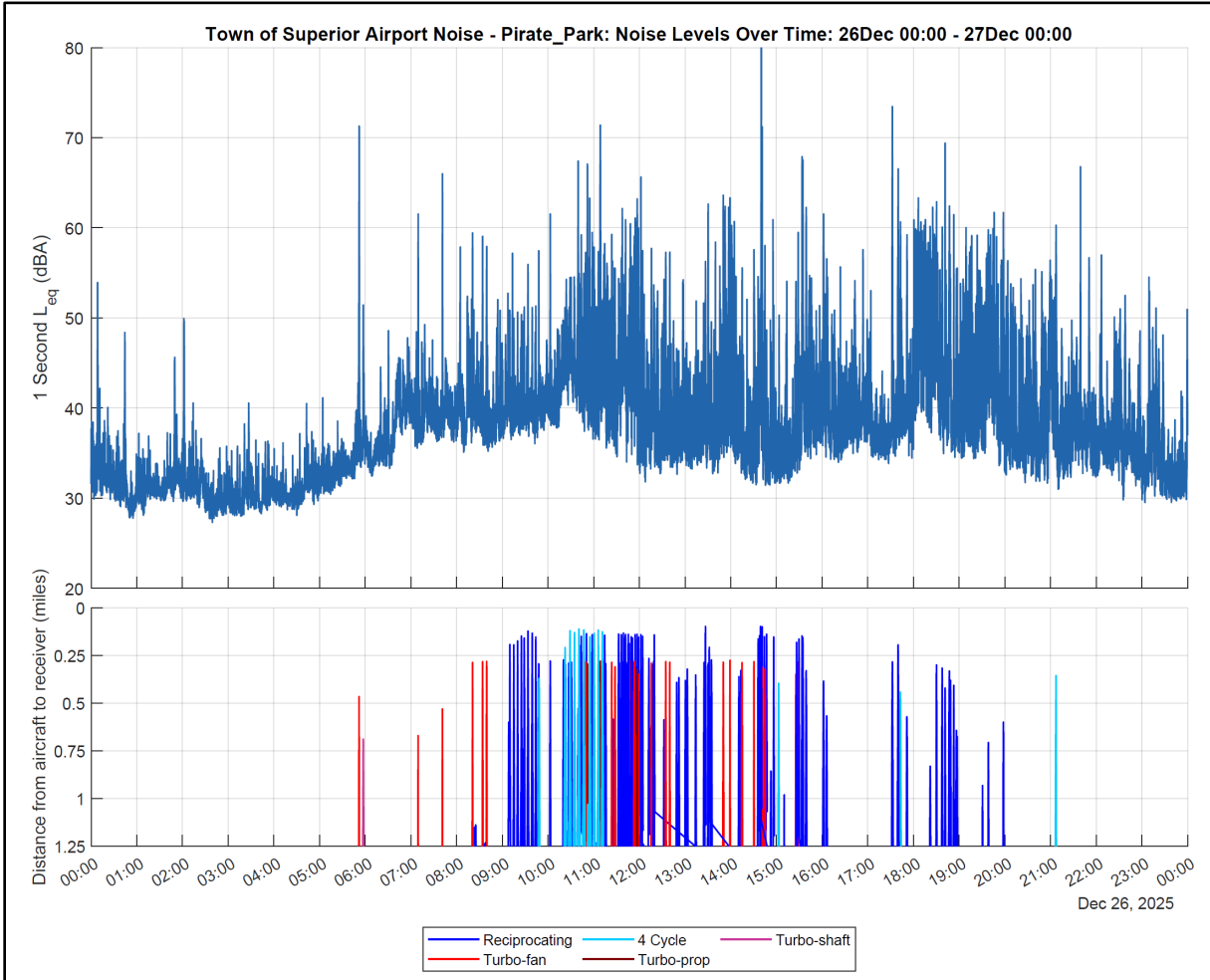


Figure 5 – Noise Levels and Aircraft Operations on Median Day (Pirate Park)

Table 4 – Hourly Noise Levels and Aircraft Operations on Median Day (Pirate Park)

Time	7 am	8 am	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm
Average Noise Level (dBA)	43	43	42	48	51	44	45	51	46	43	50	52	47	42	43
Number of Operations	4	8	23	27	49	29	22	32	19	9	6	11	5	5	2

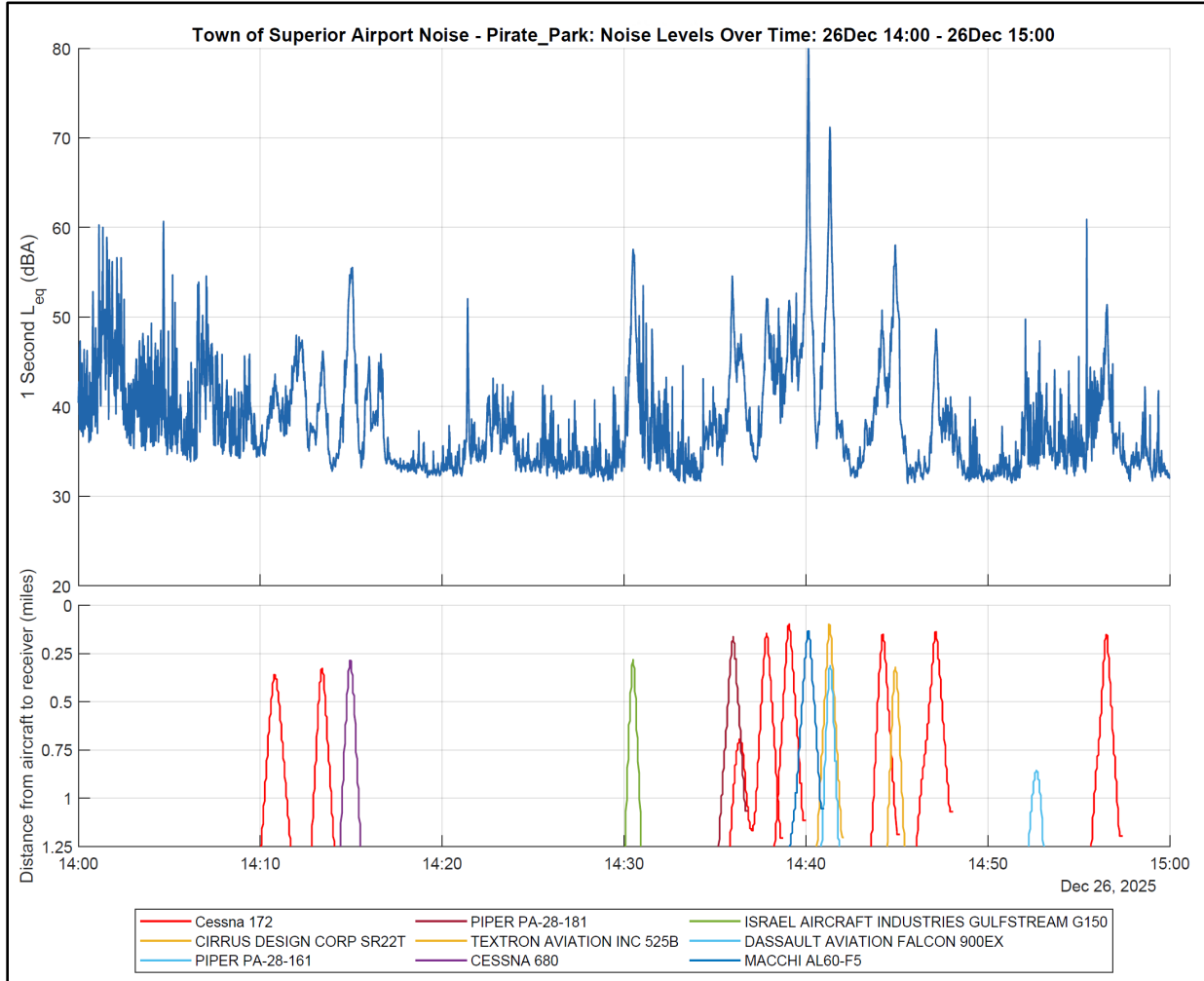


Figure 6 – Noise Levels and Aircraft Operations during an Example Hour on Median Day (Pirate Park)

Detailed Results

1. Measurement Locations and Flight Paths

Noise level monitors were placed at the locations shown in Figure 1-1 and configured to continually measure noise levels. The meters were in service for the entirety of December 2025. The selection of measurement locations considered proximity of Town of Superior residences, aircraft flight paths, and availability of public land. The Water Bladder location was chosen as it is removed from busy roads and in the flight path of touch and go operations. The Community Center location was chosen as it is directly in the flight path of runway 12 L. The Pirate Park location was chosen as it is directly in the flight path of runway 12 R while still being nearby to residences.

Aircraft flight paths are limited due to Denver International Airport airspace to the east and mountains to the west. This, along with prevailing wind patterns, pushes a majority of operations over the Town of Superior, as shown in Figures 1 and 4 (above).

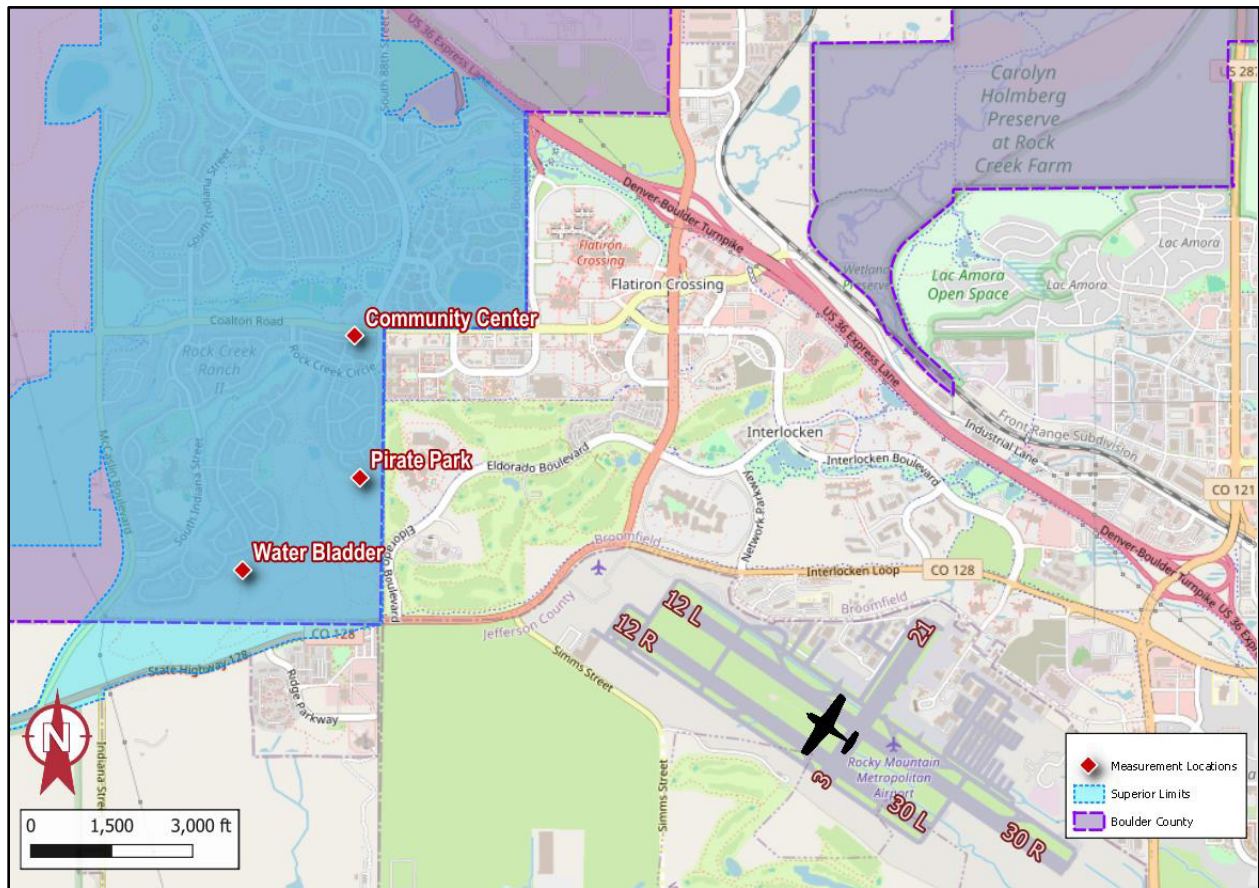


Figure 1-1. Measurement Locations and Airport

2. Noise and Aircraft Operations Measurement Procedures

Noise levels were measured in accordance with applicable acoustical standards as well as the author's experience in this specialized field. The following sections describe the acoustical standards followed, measurement equipment specifications and settings, measurement duration, ground wind measurement equipment, and aircraft operations data integration.

2.1 Applicable Noise Measurement and Analysis Standards

The measurements were executed in accordance with the relevant aspects of the following standards:

1. Noise measurement equipment meets the Type 1 specifications of American National Standards Institute (ANSI) standard S1.4-2014 (R2024) American National Standard Specification for Sound Level Meters.
2. ANSI S1.11-2004 (R2009), Electroacoustics - Octave-band and Fractional-octave-band Filters - Part 1: Specifications.
3. ANSI S1.40-2006 (R2016), American National Standard Specifications and Verification Procedures for Sound Calibrators.
4. The measurement and analysis procedures followed the applicable portions of ANSI S12.9-2013 Part 3 (R2018) Quantities and Procedures for Description and Measurement of Environmental Sound - Part 3: Short-Term Measurements with an Observer Present.
5. ANSI S12.18-1994 (R2019) Outdoor Measurement of Sound Pressure Level.
6. ANSI S1.13-2020 American National Standard Measurement of Sound Pressure Level in Air.

2.2 Noise Measurement Equipment

Noise levels were measured using Larson Davis Model 831 sound level meters with associated preamplifiers and ½ inch free-field precision microphones. All measurement and field calibration equipment were certified by a traceable laboratory within 18 months prior to the measurements. Field calibrations were conducted on December 10, 2025 and the drift in the measured noise level was well within tolerance (Water Bladder +0.00 dB, Pirate Park -0.14 dB, and Community Center +0.16 dB). Calibration certificates and records are available upon request.

The microphones were mounted on steel poles and positioned five feet above the ground (per ANSI S12.9). The microphones were covered with hydrophobically treated 7-inch diameter, 80-pores-per-inch density windscreens (ACO Pacific Model WS7-80T). Audio from each sound level meter was recorded using Tascam DR-05X digital recorders. The sound level meters were configured to continuously measure and record 1-second and 1-hour averages of the following metrics: overall L_{eq} , L_{10} , L_{50} , and L_{90} , as well as one-third octave band L_{eq} levels (6.3 Hz to 20 kHz).

2.3 Aircraft Position Measurement Equipment

Aircraft position data is being collected in the area with an Automatic Dependent Surveillance-Broadcast (ADS-B) monitoring system that receives real-time data from each aircraft in the area, including location, speed, and a unique identifier (hex code). Aircraft position data is being logged on 1-second intervals and is combined with the Federal Aviation Administration (FAA) aircraft registration database to get additional information for each aircraft, including make/model, engine type, and owner. Aircraft from flight schools were identified based on the owner and listed registration numbers from the flight school websites. Altitude data from the aircraft is based on barometric pressure on the aircraft and is not corrected for barometric pressure on the ground. During data processing, the altitude data is corrected based on barometric pressure from the airport. Aircraft above 11,000 feet are filtered out of the database to eliminate from the analysis aircraft that are merely passing overhead and not using Rocky Mountain Metropolitan Airport.

2.4 Meteorological Data

Wind speeds and direction are being measured continuously at each monitoring site using Vaisala WXT530 series sonic anemometers, mounted on steel poles approximately 6.5 feet above the ground (per ANSI S12.18) and placed within approximately 10 feet of the microphones. Barometric pressure data was obtained from the airport's weather station.

2.5 Resulting Measurement Database

This report presents the results of measurements conducted throughout the month of December 2025. A total of 744 hours of continuous noise, aircraft, and ground wind data were collected. All data was organized into a single database and time synchronized through the cellular network.

Figure 2-1 shows noise levels versus time (top graph) and distance to the nearest aircraft over time (bottom graph) for an example one-hour period at Pirate Park. This example shows a Cessna 172 (shown in blue) and a Piper PA-28-181 (shown in purple) performing touch and go operations, which involves landing and immediately taking off again, and results in the airplane passing over the microphone every few minutes. A Cessna 172 (shown in yellow) and a Pilatus PC-12/45 (shown in red) perform a traditional takeoff or landing. Note the ambient sound level, the level occurring with no aircraft present, is approximately 38 dBA during this example hour. With aircraft present, levels are as high as 75 dBA, which is a 37 dBA increase over the ambient sound level.

Figure 2-2 shows the measured noise levels and aircraft operations for a representative hour with frequent aircraft operations. During this hour the ambient sound level for this day of 35 dBA is rarely reached because there was very little time when aircraft noise was not audible.

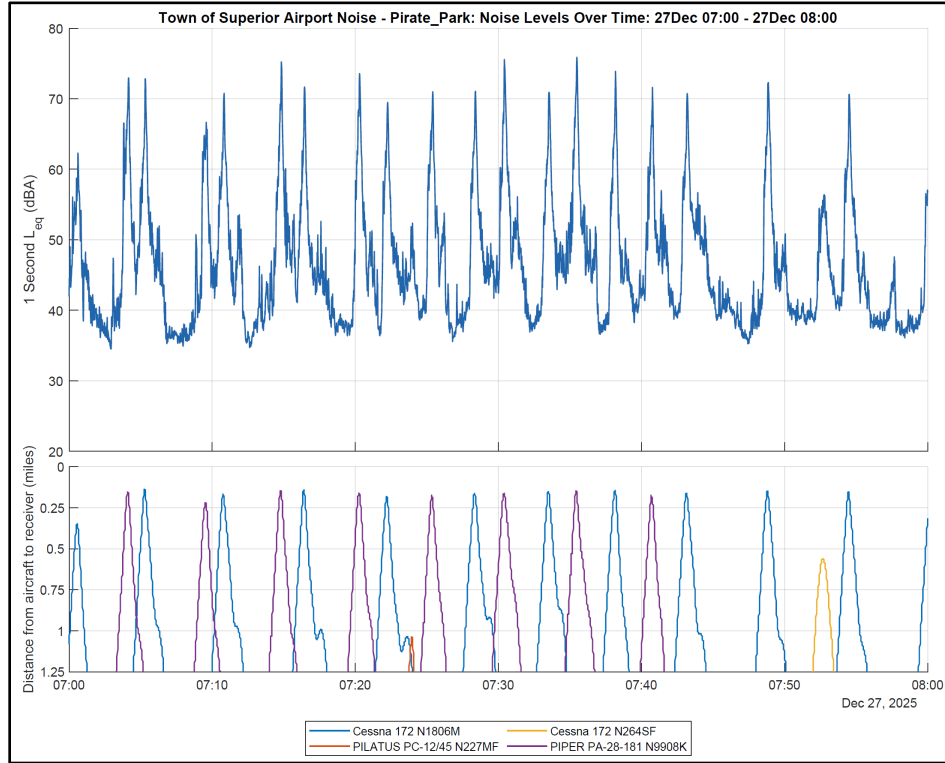


Figure 2-1. Example Time Plot of Measured Noise Levels - Touch and Go Operations

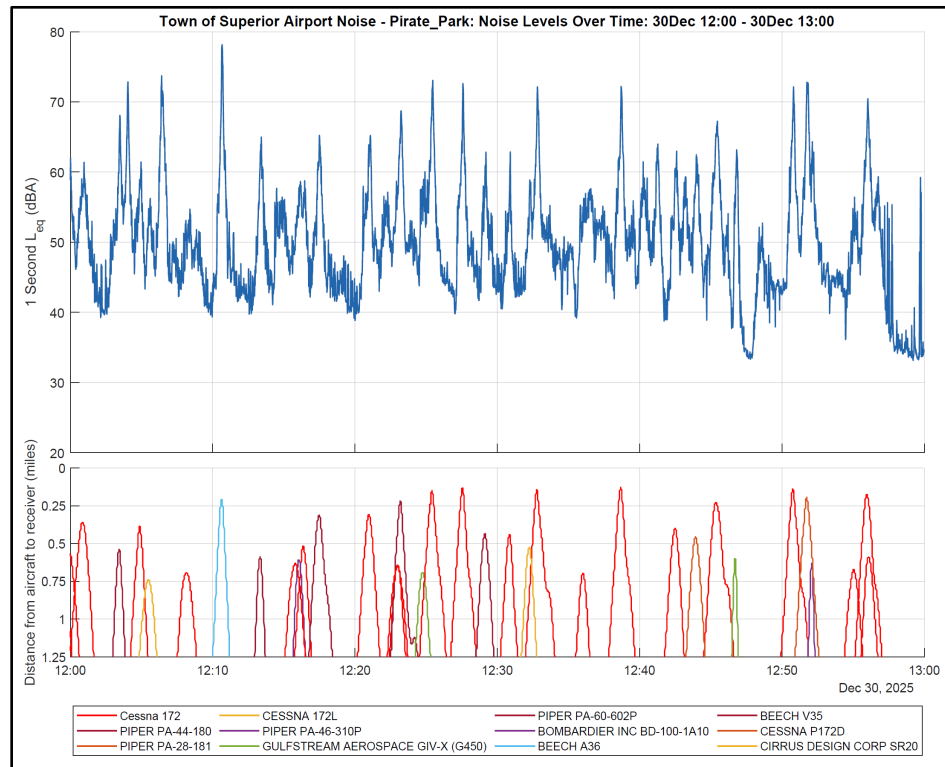


Figure 2-2. Example Time Plot During an Hour with Frequent Aircraft Operations

3. Data Analysis Procedures

The measured noise level and aircraft operations data were analyzed as follows.

3.1 Duration of Analysis Intervals

The measured data was recorded and analyzed in 1-second intervals. This interval was chosen because it provides sufficient resolution to capture changes in noise levels against aircraft proximity over time and follows the FAA's procedures. Results are summarized and presented herein in terms of daily averages of noise levels when aircraft are present versus ambient noise levels in the area (noise generated by non-aircraft sources, such as distant roadway traffic).

3.2 Aircraft Types and Operations

Each 1-second ADS-B sample was classified into one of five operational types: (1) on-the-ground, (2) flyover, (3) touch and go (T&G), (4) takeoff, and (5) landing. The number of operations per day for each operational type is shown in Table 3-1. Samples classified as on-the-ground were excluded from further analysis as planes would not be audible during these times, and samples for aircraft above 11,000 feet or classified as flyovers were excluded from further analysis as these operations were not generated by this airport.

Each aircraft detected in the month is analyzed separately. Each 1-second sample in which the individual aircraft's signal was detected is arranged into a table in chronological order. Each sample is labeled as on the ground (known from the positional information) or airborne. Airborne samples are then grouped into events, which include takeoff, landing, touch and go operation, and flyover. Starting with the first 1-second sample in time where the aircraft was detected as being airborne, the following logic is applied. This is also shown in the table below.

- If the previous sample was on the ground, and a sample within the next 20 minutes is on the ground, the entire window of samples when the aircraft was airborne is classified as touch and go.
- If the previous sample was on the ground, and no samples within the next 20 minutes are on the ground, the entire 20-minute window of samples is classified as takeoff.
- If the previous sample was not on the ground, and a sample within the next 20 minutes is on the ground, the entire window of samples when the aircraft was airborne is classified as landing.
- If the previous sample was not on the ground, and no samples within the next 20 minutes are on the ground, the entire 20-minute window of samples is classified as a flyover and is disregarded from further analysis.

	Is on the ground within the next 20 minutes	Is not on the ground within the next 20 minutes
Previous sample was on the ground	Touch and Go	Takeoff
Previous sample was not on the ground	Landing	Flyover

Additionally, T&G operations were further classified as initial (the initial takeoff) or subsequent (subsequent touch and go landings and takeoffs) depending on whether the previous operation of the aircraft was classified as a T&G operation. As described in more detail below, this was done to allow for the estimation of noise levels for a scenario where T&G operations occurred at another distant airfield.

Each ADS-B sample was also classified by aircraft engine type, as shown in Table 3-2. Aircraft engine type is identified from the aircraft registration “N Number” broadcast by the aircraft, and the FAA aircraft registration database, which provides details about each registered aircraft. Flight schools are identified based on the aircraft registered owner, a list of planes and N Numbers on each flight school’s website, and observations of aircraft at the airport. Most aircraft are identified as piston engine (reciprocating or 4-cycle) and a majority of them are registered to flight schools.

3.3 Ambient Sound Levels

For the purposes of this analysis, the ambient daytime noise levels for each day are defined as the L_{90} dBA noise level measured during daytime hours. This is calculated by ordering all 1-second L_{eq} dBA noise level samples measured between 7:00 AM and 10:00 PM and determining the 90th percentile, which is the noise level exceeded 90 percent of the time. Noise level contributions from aircraft operations are effectively removed with the L_{90} metric.

3.4 Aircraft Noise Levels

Aircraft noise levels represent the 1-second measurement samples when any aircraft operations were audible. Noise levels are plotted against the concurrently measured distance from each aircraft to quantify the relationship between these two variables. The data indicates that at distances of 1 to 1.25 miles, aircraft begin to have an effect on noise levels and, at distances of 1 mile or less from the measurement location, aircraft have a significant influence on measured noise levels. For the purposes of this analysis operations were considered audible if the aircraft came within 1.25 miles of a measurement site at any time during the operation.

3.5 Aircraft Noise Levels without T&G Operations

Aircraft noise levels without T&G operations represent the average of all 1-second samples taken when aircraft operations were audible, but with noise levels during all times when an aircraft operation was classified as a subsequent T&G set to the ambient sound level for that day. This simulates what the average noise level would have been if T&G operations took place elsewhere, i.e., a distant airfield. Initial T&G operations were not removed from the analysis because an aircraft would need to take off and land at the airport even if T&G operations were located elsewhere. This initial T&G operation represents the takeoff and landing.

Table 3-1. Aircraft Operations by Type³

Day	Operation Type			Total Operations	Percentage T&G	Total Number of Unique Aircraft
	T&G	Takeoff	Landing			
1-Dec-25	198	181	184	563	35%	135
2-Dec-25	150	202	190	542	28%	129
3-Dec-25	0	21	19	40	0%	25
4-Dec-25	14	116	119	249	6%	94
5-Dec-25	119	174	161	454	26%	128
6-Dec-25	64	32	41	137	47%	49
7-Dec-25	136	119	126	381	36%	108
8-Dec-25	59	103	92	254	23%	99
9-Dec-25	2	12	16	30	7%	27
10-Dec-25	100	122	120	342	29%	124
11-Dec-25	1	36	33	70	1%	50
12-Dec-25	134	186	187	507	26%	137
13-Dec-25	57	64	65	186	31%	71
14-Dec-25	137	189	198	524	26%	153
15-Dec-25	66	238	240	544	12%	154
16-Dec-25	69	104	98	271	25%	102
17-Dec-25	40	41	43	124	32%	61
18-Dec-25	36	108	114	258	14%	104
19-Dec-25	4	22	17	43	9%	30
20-Dec-25	81	76	78	235	34%	82
21-Dec-25	129	161	169	459	28%	124
22-Dec-25	35	72	69	176	20%	89
23-Dec-25	79	211	207	497	16%	152
24-Dec-25	20	65	62	147	14%	68
25-Dec-25	0	21	14	35	0%	24
26-Dec-25	42	103	110	255	16%	101
27-Dec-25	114	137	134	385	30%	122
28-Dec-25	4	49	45	98	4%	57
29-Dec-25	180	168	174	522	34%	134
30-Dec-25	193	198	192	583	33%	142
31-Dec-25	56	153	150	359	16%	111
Month Total	2,319	3,484	3,467	9,270	25%	-

³ This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch and go operation as two operations.

Table 3-2. Aircraft Operations by Aircraft Engine Type⁴

Day	Engine Type					
	Piston	Turboprop	Turboshaft	Turbojet	Turbofan	Unknown
1-Dec-25	487	24	10	1	39	2
2-Dec-25	456	29	10	1	37	9
3-Dec-25	0	9	0	0	31	0
4-Dec-25	172	25	12	2	37	1
5-Dec-25	382	14	8	0	48	2
6-Dec-25	104	7	2	0	20	4
7-Dec-25	342	5	0	0	33	1
8-Dec-25	156	15	7	0	63	13
9-Dec-25	5	7	0	0	16	2
10-Dec-25	259	24	7	0	50	2
11-Dec-25	10	8	3	0	44	5
12-Dec-25	435	21	8	1	37	5
13-Dec-25	137	12	2	0	35	0
14-Dec-25	445	17	8	1	50	3
15-Dec-25	475	17	16	0	34	2
16-Dec-25	185	21	10	2	46	7
17-Dec-25	69	9	2	0	36	8
18-Dec-25	175	22	14	0	43	4
19-Dec-25	7	3	0	0	32	1
20-Dec-25	175	8	2	0	50	0
21-Dec-25	401	21	0	0	35	2
22-Dec-25	95	25	12	0	40	4
23-Dec-25	390	22	14	0	63	8
24-Dec-25	126	7	4	0	7	3
25-Dec-25	20	1	2	0	12	0
26-Dec-25	197	7	4	0	47	0
27-Dec-25	307	11	2	0	61	4
28-Dec-25	46	6	0	0	44	2
29-Dec-25	446	19	12	0	45	0
30-Dec-25	523	16	8	0	30	6
31-Dec-25	314	12	6	0	26	1
Month Total	7,341	444	185	8	1,191	101

⁴ This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch and go operation as two operations.

4. Noise Measurement and Analysis Results

Tables 4-1 through 4-3 provide a summary of the noise levels and aircraft operations measured during each day of December 2025 at each of the three measurement locations. The tables provide the following information:

- The daily measured ambient (background) sound level (L_{90}).
- The number of audible aircraft operations each day. For the purposes of this analysis operations were considered audible if aircraft came within 1.25 miles of a measurement site, based on an analysis of measured noise level and aircraft distance data. This will exclude any takeoffs and landings from and to runways 30 L and 30 R.
- The average measured noise level with aircraft from the airport present (within 1.25 miles).
- The number of decibels that aircraft noise is above the daily ambient sound level.
- The number of minutes each day that aircraft were present, and the noise level they generated that exceeded the ambient sound level by at least 5, 10, and 20 dBA, respectively.
- This information is then repeated with T&G operations excluded from the analysis.

Table 4-1. Summary of Measured Noise Levels⁵ and Aircraft Operations⁶ – Water Bladder

Date	Ambient Noise Level (dBA)	Daytime - All Operations						Daytime - T&G Operation Removed					
		Number of Audible Operations	Average Noise Level with Aircraft (dBA)	Aircraft Noise Level Increase Above Ambient (dBA)	Duration of Aircraft Noise Levels Above Ambient (Minutes)			Number of Audible Operations	Average Noise Level with Aircraft (dBA)	Aircraft Noise Level Increase Above Ambient (dBA)	Duration of Aircraft Noise Levels Above Ambient (Minutes)		
					> 5 dBA	> 10 dBA	> 20 dBA				> 5dBA	> 10 dBA	> 20 dBA
1-Dec-25	41	314	56	14	200	94	12	161	53	11	81	42	6
2-Dec-25	43	316	58	15	240	134	17	211	55	13	117	71	11
3-Dec-25	39	13	62	23	4	3	1	13	62	23	4	3	1
4-Dec-25	41	67	54	13	33	16	1	66	54	13	33	16	1
5-Dec-25	-	252	-	-	-	-	-	160	-	-	-	-	-
6-Dec-25	-	79	-	-	-	-	-	28	-	-	-	-	-
7-Dec-25	40	221	55	16	171	100	16	115	53	13	68	45	9
8-Dec-25	42	124	67	25	91	53	11	83	55	13	48	28	5
9-Dec-25	-	8	-	-	-	-	-	8	-	-	-	-	-
10-Dec-25	47	183	59	12	63	17	2	110	58	11	38	12	2
11-Dec-25	-	18	-	-	-	-	-	18	-	-	-	-	-
12-Dec-25	44	244	58	14	174	87	9	167	55	11	83	43	6
13-Dec-25	44	114	55	11	56	16	2	68	54	10	29	12	2
14-Dec-25	41	306	57	17	241	153	23	200	54	13	107	71	12
15-Dec-25	43	273	57	14	181	93	14	232	57	13	144	79	12
16-Dec-25	42	113	62	20	85	44	3	69	62	20	37	19	2
17-Dec-25	44	70	56	12	31	13	2	39	53	10	13	5	1
18-Dec-25	42	108	55	13	51	22	4	92	54	13	40	20	4
19-Dec-25	43	15	61	19	5	3	1	14	61	19	5	3	1
20-Dec-25	43	140	58	14	86	27	5	81	57	14	47	19	4
21-Dec-25	44	280	59	15	202	108	16	175	56	12	83	45	9
22-Dec-25	41	67	56	15	42	21	3	59	56	15	34	17	3
23-Dec-25	44	259	58	14	159	80	10	206	57	13	103	54	8
24-Dec-25	42	77	59	16	54	27	5	64	58	15	37	20	4
25-Dec-25	39	14	57	18	7	4	1	14	57	18	7	4	1
26-Dec-25	41	129	55	14	89	35	6	102	55	14	64	29	5
27-Dec-25	44	223	57	13	136	61	8	132	55	11	60	30	5
28-Dec-25	40	47	55	14	20	10	2	47	55	14	20	10	2
29-Dec-25	44	314	57	13	219	104	10	169	55	11	88	48	7
30-Dec-25	44	353	57	13	216	100	10	201	55	11	101	53	7
31-Dec-25	42	189	57	15	137	81	11	144	56	14	82	54	10
Monthly Average	42	159	58	15	111	56	8	105	56	14	58	32	5
Monthly Total	-	4,930	-	-	2,991	1,510	203	3,248	-	-	1,573	851	138

⁵ No usable noise data from December 5 and 6 due to data corruption and December 9 and 11 due to high wind.

⁶ This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch-and-go operation as two operations.

Table 4-2. Summary of Measured Noise Levels⁷ and Aircraft Operations⁸ – Community Center

Date	Ambient Noise Level (dBA)	Daytime - All Operations						Daytime - T&G Operation Removed					
		Number of Audible Operations	Average Noise Level with Aircraft (dBA)	Aircraft Noise Level Increase Above Ambient (dBA)	Duration of Aircraft Noise Levels Above Ambient (Minutes)			Number of Audible Operations	Average Noise Level with Aircraft (dBA)	Aircraft Noise Level Increase Above Ambient (dBA)	Duration of Aircraft Noise Levels Above Ambient (Minutes)		
					> 5 dBA	> 10 dBA	> 20 dBA				> 5dBA	> 10 dBA	> 20 dBA
1-Dec-25	37	346	55	18	242	145	25	193	51	14	147	81	11
2-Dec-25	38	325	57	19	286	192	34	222	54	16	197	118	15
3-Dec-25	33	22	56	23	6	5	2	22	56	23	6	5	2
4-Dec-25	39	112	52	13	91	42	3	110	52	13	90	41	3
5-Dec-25	-	284	-	-	-	-	-	190	-	-	-	-	-
6-Dec-25	40	89	54	15	58	27	4	39	48	8	27	10	1
7-Dec-25	35	246	56	20	209	154	33	143	53	17	138	97	17
8-Dec-25	40	149	59	19	102	65	10	108	56	15	76	46	6
9-Dec-25	-	13	-	-	-	-	-	13	-	-	-	-	-
10-Dec-25	42	193	52	10	97	39	2	120	51	9	59	26	2
11-Dec-25	-	35	-	-	-	-	-	35	-	-	-	-	-
12-Dec-25	38	283	56	18	245	160	26	204	52	14	180	107	12
13-Dec-25	38	127	51	13	83	38	3	81	49	11	59	28	2
14-Dec-25	34	323	55	22	259	200	47	217	52	18	183	133	22
15-Dec-25	33	290	52	19	275	190	33	249	51	18	241	162	24
16-Dec-25	40	151	56	16	128	97	10	107	54	15	98	73	7
17-Dec-25	39	77	56	17	53	28	5	46	52	13	31	14	2
18-Dec-25	37	130	50	14	100	47	3	114	50	13	92	43	2
19-Dec-25	-	17	-	-	-	-	-	16	-	-	-	-	-
20-Dec-25	36	143	50	14	75	37	5	84	48	12	47	26	3
21-Dec-25	38	288	57	19	253	189	35	183	53	16	150	100	15
22-Dec-25	34	69	53	19	57	32	5	62	53	18	51	28	4
23-Dec-25	35	276	54	19	247	169	28	223	52	16	199	127	15
24-Dec-25	35	83	56	21	82	59	11	70	55	20	68	46	8
25-Dec-25	-	18	-	-	-	-	-	18	-	-	0	0	0
26-Dec-25	34	131	52	18	90	46	6	104	52	17	69	37	5
27-Dec-25	37	239	57	20	190	119	29	148	53	16	120	65	11
28-Dec-25	35	58	54	20	40	25	4	58	54	20	40	25	4
29-Dec-25	36	343	55	20	303	223	50	197	52	16	176	120	19
30-Dec-25	36	364	57	21	299	220	53	217	54	18	197	135	24
31-Dec-25	36	206	55	19	183	121	21	161	52	16	146	90	12
Monthly Average	37	175	55	18	156	103	19	121	52	16	107	66	9
Monthly Total	-	5,430	-	-	4,053	2,668	488	3,754	-	-	2,886	1,783	248

⁷ No usable noise data from December 5 and 25 due to data corruption and December 9, 11, and 19 due to high wind.

⁸ This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch-and-go operation as two operations.

Table 4-3. Summary of Measured Noise Levels⁹ and Aircraft Operations¹⁰ – Pirate Park

Date	Ambient Noise Level (dBA)	Daytime - All Operations						Daytime - T&G Operation Removed					
		Number of Audible Operations	Average Noise Level with Aircraft (dBA)	Aircraft Noise Level Increase Above Ambient (dBA)	Duration of Aircraft Noise Levels Above Ambient (Minutes)			Number of Audible Operations	Average Noise Level with Aircraft (dBA)	Aircraft Noise Level Increase Above Ambient (dBA)	Duration of Aircraft Noise Levels Above Ambient (Minutes)		
					> 5 dBA	> 10 dBA	> 20 dBA				> 5dBA	> 10 dBA	> 20 dBA
1-Dec-25	38	352	57	20	282	212	50	196	53	15	138	103	20
2-Dec-25	38	333	61	22	308	237	64	224	57	19	184	137	28
3-Dec-25	35	22	62	27	10	9	6	22	62	27	10	9	6
4-Dec-25	40	114	58	18	97	73	20	112	58	18	96	73	20
5-Dec-25	40	286	59	18	246	164	34	192	54	14	146	95	12
6-Dec-25	40	90	58	18	80	55	12	39	51	12	30	21	3
7-Dec-25	35	252	58	24	237	201	90	146	54	20	125	108	42
8-Dec-25	39	151	65	25	123	101	40	110	60	21	80	69	29
9-Dec-25	-	13	-	-	-	-	-	13	-	-	-	-	-
10-Dec-25	43	194	57	15	103	62	9	121	56	13	61	37	7
11-Dec-25	-	35	-	-	-	-	-	35	-	-	-	-	-
12-Dec-25	40	285	59	19	256	199	43	205	55	15	164	124	18
13-Dec-25	39	127	58	19	80	48	20	81	57	18	53	36	17
14-Dec-25	35	324	59	24	286	236	78	218	54	19	168	139	37
15-Dec-25	35	295	57	22	271	209	66	254	55	20	225	173	51
16-Dec-25	-	161	-	-	-	-	-	113	-	-	-	-	-
17-Dec-25	40	78	59	19	57	42	10	47	56	16	30	22	5
18-Dec-25	36	133	56	21	115	95	39	117	56	20	104	88	38
19-Dec-25	-	17	-	-	-	-	-	16	-	-	-	-	-
20-Dec-25	39	142	51	12	64	29	4	83	50	11	38	19	3
21-Dec-25	39	288	60	21	273	206	58	183	55	16	135	99	22
22-Dec-25	33	76	56	23	63	54	20	67	56	23	54	46	18
23-Dec-25	37	278	58	21	252	191	52	225	55	18	184	136	31
24-Dec-25	-	83	-	-	-	-	-	70	-	-	-	-	-
25-Dec-25	33	19	59	25	16	13	6	19	59	25	16	13	6
26-Dec-25	35	132	54	19	101	62	12	105	53	18	71	44	11
27-Dec-25	39	242	59	21	213	147	44	150	55	17	111	79	18
28-Dec-25	35	58	59	24	40	32	15	58	59	24	40	32	15
29-Dec-25	37	344	59	22	322	244	83	197	54	16	153	116	31
30-Dec-25	39	375	59	21	323	243	63	222	55	17	180	133	27
31-Dec-25	35	209	58	23	193	169	54	163	55	20	136	117	32
Monthly Average	37	178	58	21	170	128	38	123	56	18	105	79	21
Monthly Total	-	5,508	-	-	4,413	3,333	991	3,803	-	-	2,732	2,067	545

⁹ No usable noise data from December 9, 11, 16, and 19 due to high wind and from December 24 due to data corruption.

¹⁰ This report counts each touch and go operation as a single operation. The Federal Aviation Administration counts each touch-and-go operation as two operations.