



CENTENNIAL AIRPORT COMMUNITY NOISE ROUNDTABLE MINUTES

January 5, 2022

DRAFT – 2nd version

VISION – QUIETER SKIES FOR OUR COMMUNITIES

MISSION – UTILIZING PARTNERSHIPS TO REDUCE AIRPORT NOISE FOR THE BENEFIT OF NEIGHBORING COMMUNITIES

Chair: Brad Pierce **Vice Chair:** Melissa Coudeyras **Treasurer:** Andy Jones **Secretary:** Alison Biggs

1. **CALL TO ORDER, ROLL CALL, and QUORUM:** The meeting was called to order at 6:35 p.m. by Chair Brad Pierce. The following were in attendance and a quorum was present:

Arapahoe County:	Carrie Warren-Gully	Highlands Ranch Metro District:	Andy Jones
Douglas County:	Dan Avery	Lone Tree:	Mike Anderson
Aurora:	Brad Pierce	Parker:	Todd Hendreks
Castle Pines:	Melissa Coudeyras	ACPAA:	Mike Fronapfel
Castle Rock:	Sandy Vossler	CABA:	Don Kuskie
Centennial:	Candace Moon	Wings Over the Rockies:	Bill Wasmund
Foxfield:	Pam Thompson		
Greenwood Village:	Donna Johnston		

Others in attendance were Arapahoe County Alternate Representative Bill Skinner; Aurora Alternate Representative Karen Hancock; future Castle Pines Representative Chris Eubanks; past Centennial Alternate Representative Andrea Suhaka; and ACPAA staff Samantha Blymyer, Gina Conley, and Lauren Wiarda.

Those absent were:

Arapahoe County:	Paul Krier/Vacant	CABA:	Don Kuskie/Mike Straka
Douglas County:	Alison Biggs/Mark Adams	CDOT Aeronautics Div:	Todd Green/Vacant
Centennial:	Candace Moon/Don Sheehan	FAA APA Control Tower:	Jeff Holmes/Ron Curry
Cherry Hills Village:	Al Blum/Afshin Safavi	FAA TRACON:	Steve Martin/Bill Dunn
AOPA:	Bob Doubek/John Hirshman	FAA District Office:	John Bauer/John Sweeney

Due to the absence of the Secretary, the Chair appointed Melissa Coudeyras as Acting Secretary.

SPECIAL PRESENTATION: Emily Tranter, executive Director of the National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.) was introduced by Brad Pierce and welcomed by all. She joined the meeting virtually, to provide updates from the Federal level about noise issues and airport funding.

Legislative information: Covid impacted air travel and policy. N.O.I.S.E. had asked the FAA to continue to look at various issues. There had been some movement with the American Rescue Plan passed by Congress last year which provided funds to help with Covid relief and long-term recovery with for the FAA. Congress and the Biden administration have invested in transportation and aviation recovery. The Federal government infused \$1.1 trillion into infrastructure funding. As far as aviation is concerned, \$25 billion in for airports, \$5 billion to improve aging airport terminals, \$15 billion to increase safety and expand capacity to include airport improvement programs. The third phase of the Continuous Lower Energy, Emissions, and Noise Program (CLEEN) investment is to go to aircraft companies to improve aircraft emissions and reduce noise levels by producing quieter aircraft. CLEEN is the FAA's principal environmental effort to accelerate the development of new aircraft and engine technologies. Tranter then noted after January 1, 2022, many legislators are now focused on re-election instead of business in the legislature. .

Question was asked about impacts of 5G on airports. Tranter was not aware of this issue. It was noted there is going to be a 2-week delay by Verizon and AT&T for implementing 5G, which is their 5th generation mobile network. This new global wireless standard after 1G, 2G, 3G, and 4G networks, enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices. The concern is 5G transmitters could adversely affect some radio altimeters, crucial to navigation systems of planes and helicopters, particularly those needed for instrument flying. Tranter indicated she would speak to her air traffic controller expert to get more information about this..

Question also asked about the FAA and reducing noise from flight schools? Tranter stated that federal policy impacts flight schools, but this would be a long-term change. It was likely any changes would occur at the local level, not the Federal level. Brad Pierce gave a brief synopsis of what CACNR had been doing to work on this issue here..

Question was asked about the money that has been slated to go to large aircraft companies to reduce emissions and reduce noise. Will they also be making smaller planes quieter? Tranter said this is a policy program for funding and the companies must apply for it. Not sure if companies have applied.

2. **PUBLIC COMMENT:**

A. **VIRTUAL/IN-PERSON MEETING ATTENDEES** – Randy Johnson of Louviers thanked airport staff for placing and picking up the portable noise monitor which had been at his location. Mike Fronapfel indicated the information from the monitor would be available soon.

B. **FROM CACNR EMAIL ADDRESS** – Communication of December 15, 2021 to be referred to the February meeting.

3. **CONSENT AGENDA:** A. & B. - The Consent Agenda included the December 1, 2021, draft CACNR minutes; and a Treasurer's Report dated December 31, 2001 which showed a balance of \$4,765.75 which would be carried over to 2022.

C. The November 2021 Noise Report was not available.

On the motion of Andy Jones, duly seconded, the Consent Agenda, minus the November 2021 Noise Report, was approved.

4. **ITEMS REMOVED FROM CONSENT AGENDA:** Although it had been approved with the Consent Agenda, question was asked if any of the CACNR invoices sent to its Regular Members' Representatives had been paid. That information was not readily available, but could be provided after the meeting.

5. **COMMITTEE REPORTS:**

C. **EXECUTIVE /WORK PLAN COMMITTEES** –

1. Flight Schools Meeting Draft Summary Report. Brad Pierce spoke about the flight schools meeting and the draft report which had been sent to the Members' Representatives and Alternates. He asked for feedback on the report which would be shared with Jason. It had been a good meeting, with three schools attending. Andy Jones indicated he went to the Aspen Flight School after the meeting and they were excited about working with us and to learning more about the locations that have issues with noise. They were talking about moving the southwest flight training area further south on their own. Jones would like to go to the other schools as well. Idea was expressed that it might be nice to have a presentation from them next month or have a back-and-forth discussion with CACNR. The owner had encouraged the chief pilot to engage with the Roundtable. Mike Fronapfel would reach out and invite them to come to the February meeting. The other flight schools may be asked to come to other meetings..

B. **COMMUNITY OUTREACH** – No report

C. **FLY QUIET** – No report

D. **NOISE MONITORS** – No report.

E. **WORK PLAN** – No report.

6. **FAA REPORTS:**

A. **CENTENNIAL (APA) AIR TRAFFIC CONTROL TOWER** – No report

7. **OTHER REGULAR MONTHLY REPORTS:**

A. **ACPAA** – The CACNR reports to and following the December ACPAA meeting had been provided.

D. **AIRPORT DIRECTOR'S REPORT** –1. Airport Activity- Mike Fronapfel reported Lauren Wiarda and Samantha Blymyer had been hired to take over some of the workload left by his promotion and the departure of Rachel Keller. There had been some delays in the availability of various reports during the transition time.

Jet fuel sales had been 35% higher in December 2021 than December 2020. Operations had been down a little. Some training flights had been pushed out to other airports due to Air Traffic Control trying to limit traffic on the parallel runways. There will be a closure of the training runway next year for construction. Hangar development is catering to jet/corporate traffic.

Question was asked about concerns about the City of Centennial's land use. Mike Fronapfel indicated ACPAA had heard that city was putting in live/work units on commercial property close to airport. The City's code allows this. The involved area is near the noise monitor which records the loudest noise of the twelve monitors the airport has. Airport staff attended the City's Planning Commission meeting and pleaded the case against the development, but it was approved regardless; the Centennial City Council then approved it on consent and the project is moving forward.. Bill Skinner asked if a referral wasn't sent out in the early stages. Fronapfel indicated the airport's land use guidelines are well established, but the City of Centennial was not going to budge. Bill Wasmund asked if that was in the runway protection zone for 35 left. Fronapfel said it is just outside that zone for take-offs, but is just inside the approach. The City of Centennial apparently was not concerned about that.

C. **FOURTH QUARTER LAND USE REVIEW** – Review deferred to the February CACNR meeting.

8. **OLD BUSINESS:**

A. **DRAFT 2022 MEETING SCHEDULE FOR CACNR & ACPAA, WITH CACNR REPRESENTATIVES TO ACPAA** – The draft 2022 meeting schedule was provided. On the motion of Donna Johnston, duly seconded, the meeting schedule for 2022 was approved. Candace Moon will represent CACNR at the March ACPAA meeting, but the rest of the months still need representation. There will need to be a combined January/February CACNR report to the February ACPAA meeting. .

B. **CONGRESSIONAL QUIET SKIES CAUCUS** – Brad Pierce and Emily Tranter of N.O.I.S.E. will follow-up with Congressman Jason Crow and his staff.

C. **ACTION ITEMS FROM PRIOR CACNR MEETINGS** – No action

D. **UC DAVIS NOISE AND EMISSIONS SYMPOSIUM** – Specific registration information for the May 1-3, 2022 symposium at UC Davis was still not available. It may be a hybrid event. Bill Wasmund, Mike Anderson, Andy Jones, and Donna Johnston expressed interest in attending for CACNR. CACNR policy is to fund the attendance of two representatives to this event.

9. **NEW BUSINESS:**

A. **INFORMATION SHARING** - Brad Pierce announced this would be Bill Skinner's last meeting. He'll be continuing with his job at Arapahoe County Public Works and will be interacting with the airport in that capacity. He would continue attending CACNR meetings until his replacement was named. .

10. **PUBLIC COMMENT:** None

11. **NEXT MEETINGS:**

A. CACNR – March 2, 2022	6:30 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO – may be virtual
April 6, 2022	6:30 p.m. 7565 S Peoria Street Unit 9D, Englewood, CO
B. ACPAA – Jan 2022	Not Meeting
Feb 10, 2022	3:00 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO
March 10, 2022	3:00 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO
April 14, 2022	3:00 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO

12. **ADJOURNMENT:** The meeting was adjourned at 7:53 p.m.

Melissa Coudeyras, Acting Secretary



CENTENNIAL AIRPORT COMMUNITY NOISE ROUNDTABLE

January 5, 2022
6:30 p.m. – 8:30 p.m.

Members' Representatives and Alternate Representatives:

For In-Person Attendance (preferred): Centennial Airport, 7565 S. Peoria Street, Unit D9, Englewood, CO 80112

Please note the information for use by anyone wishing to join this meeting from a telephone, tablet, or desktop will be available the week of January 3, 2022. It will be automatically emailed to the those receiving this meeting material mailing.

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CACNR JANUARY 5, 2022 AGENDA

Chair: Brad Pierce **Vice Chair:** Melissa Coudeyras **Treasurer:** Andy Jones **Secretary:** Alison Biggs

CACNR Mission: Utilizing Partnerships to Reduce Airport Noise for the Benefit of Neighboring Communities

1. CALL TO ORDER AND DETERMINATION OF QUORUM:

<i>Arapahoe County:</i> Carrie Warren-Gully/Bill Skinner Paul Krier/Vacant <i>Douglas County:</i> Abe Laydon/Dan Avery Alison Biggs/Mark Adams <i>Aurora:</i> Brad Pierce/Karen Hancock <i>Castle Pines:</i> Melissa Coudeyras/Kevin Rants <i>Castle Rock:</i> Laura Cavey/Sandy Vossler <i>Centennial:</i> Candace Moon/Don Sheehan <i>Cherry Hills Village:</i> Al Blum/Afshin Safavi <i>Foxfield:</i> Pam Thompson/Frank Lawrence <i>Greenwood Village:</i> Donna Johnston/Libby Barnacle	<i>Highlands Ranch Metro Dist.</i> Andy Jones/Renee Anderson <i>Lone Tree:</i> Mike Anderson/Chuck Darnell <i>Parker:</i> Amy Holland/Todd Hendreks <i>ACPAA:</i> Michael Fronapfel/Vacant <i>AOPA:</i> Robert Doubek/John Hirshman <i>CABA:</i> Don Kuskie/Mike Straka <i>CDOT Aeronautics Div:</i> Todd Green/Vacant <i>FAA APA Control Tower:</i> Jeff Holmes/Ron Curry <i>FAA District Office:</i> John Bauer/John Sweeney <i>FAA TRACON:</i> Steve Martin/Bill Dunn <i>Wings Over the Rockies:</i> Bill Wasmund/Keith Palmer
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SPECIAL PRESENTATION: Emily Tranter, Executive Director, National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.) – updates from the federal level on noise issues and airport funding

2. PUBLIC COMMENT: (non-Agenda items – 3 minutes per person time limit; correspondence from the public)

- A. MEETING ATTENDEES
- B. FROM CACNR EMAIL ADDRESS – December 15, 2021

3. CONSENT AGENDA: (items here may be moved to Agenda Item #4, on the request of any CACNR Representative)

- A. DRAFT MINUTES, December 1, 2021 – Melissa Coudeyras, Acting Secretary
- B. TREASURER'S REPORT, END of YEAR 2021 – Andy Jones, Treasurer
- C. NOISE REPORT, NOVEMBER 2021 if available – Airport Staff

4. ITEMS REMOVED FROM CONSENT AGENDA:

5. COMMITTEE REPORTS:

- A. EXECUTIVE/WORK PLAN COMMITTEE – Brad Pierce, Chair
 - 1. Flight Schools Meeting Draft Summary Report
- B. COMMUNITY OUTREACH – Melissa Coudeyras, Chair
- C. FLY QUIET – Bill Wasmund, Chair
- D. NOISE MONITORS – Candace Moon, Chair
- E. WORK PROGRAM – Alison Biggs, Chair

6. FAA REPORT:

- A. CENTENNIAL AIRPORT AIR TRAFFIC CONTROL TOWER – Kurt Carpenter/Ron Curry

7. OTHER REGULAR REPORTS:

- A. ACPAA – Robert Doubek, ACPAA Treasurer; Melissa Coudeyras

- B. AIRPORT DIRECTOR'S REPORT – Mike Fronapfel
 - 1. Airport Activity
 - 2. Legislative
 - 3. Other
- C. FOURTH QUARTER LAND USE REVIEW – Airport Staff

8. **OLD BUSINESS:**

- A. Adoption of 2022 MEETING SCHEDULE FOR CACNR AND ACPAA with CACNR REPRESENTATIVES TO ACPAA
- B. CONGRESSIONAL QUIET SKIES CAUCUS
- C. FOLLOW-UP ITEMS FROM PRIOR CACNR MEETINGS
- D. UC DAVIS NOISE AND EMISSIONS SYMPOSIUM, May 1-3, 2022 at UC Davis in California. Early Bird by January 31, 2022 .

9. **NEW BUSINESS:**

- A. INFORMATION SHARING

10. **PUBLIC COMMENT:** (3 minutes per person time limit):

11. **NEXT MEETINGS:**

- | | | |
|------------|-------------------|--|
| A. CACNR – | January 5, 2022 | 6:30 p.m. 7565 S Peoria Street, Unit 9D |
| | February 2, 2022 | 6:30 p.m. 7565 S Peoria Street, Unit 9D |
| | March 2, 2022 | 6:30 p.m. 7565 S Peoria Street, Unit 9D |
| B. ACPAA – | January 2022 | Not meeting |
| | February 10, 2022 | 3:00 p.m. hybrid in-person/virtual meeting |
| | March 10, 2022 | 3:00 p.m. hybrid in-person/virtual meeting – Candace Moon representing CACNR |

12. **ADJOURN**



CENTENNIAL AIRPORT COMMUNITY NOISE ROUNDTABLE MINUTES

December 1, 2021

DRAFT

VISION – QUIETER SKIES FOR OUR COMMUNITIES

MISSION – UTILIZING PARTNERSHIPS TO REDUCE AIRPORT NOISE FOR THE BENEFIT OF NEIGHBORING COMMUNITIES

Chair: Brad Pierce **Vice Chair:** Melissa Coudeyras **Treasurer:** Andy Jones **Secretary:** Alison Biggs

1. **CALL TO ORDER, ROLL CALL, and QUORUM:** The meeting was called to order at 6:35 p.m. by Chair Brad Pierce. The following were in attendance and a quorum was present:

Arapahoe County:	Carrie Warren-Gully	Highlands Ranch Metro District:	Andy Jones
Douglas County:	Dan Avery	Lone Tree:	Mike Anderson
Aurora:	Brad Pierce	Parker:	Amy Holland
Castle Pines:	Melissa Coudeyras	ACPAA:	Mike Fronapfel
Castle Rock:	Sandy Vossler (virtual)	CABA:	Don Kuskie
Centennial:	Candace Moon	Wings Over the Rockies:	Bill Wasmund
Greenwood Village:	Libby Barnacle		

Others in attendance were Arapahoe County Alternate Representative Bill Skinner; Aurora Alternate Representative Karen Hancock; Brianna Simon from Parker; past Centennial Alternate Representative Andrea Suhaka; and ACPAA staff Gina Conley, Rachel Keller, and Deborah Smith.

Those absent were:

Arapahoe County:	Paul Krier/Vacant	CDOT Aeronautics Div:	Todd Green/Vacant
Douglas County:	Alison Biggs/Mark Adams	FAA APA Control Tower:	Jeff Holmes/Ron Curry
Cherry Hills Village:	Al Blum/Afshin Safavi	FAA TRACON:	Steve Martin/Bill Dunn
Foxfield:	Pam Thompson/Frank Lawrence	FAA District Office:	John Bauer/John Sweeney
AOPA:	Bob Doubek/John Hirshman		

Due to the absence of the Secretary, the Chair appointed Melissa Coudeyras as Acting Secretary.

2. **PUBLIC COMMENT:**

A. **VIRTUAL/IN-PERSON MEETING ATTENDEES** – Randy Johnson of Louviers thanked airport staff for placing a portable noise monitor at his location last week. It had some issues, which had been fixed. The monitor would be in place for one week.

Kimberly Hellweg of Elizabeth noted frustration that it had been a month and there still had been no meeting with the flight schools. There was continual flight traffic over her Ponderosa Park neighborhood, and she was feeling targeted. It was noted the meeting with the flight schools was scheduled for December 6, 2021, and the training areas would be discussed.

James Slaggert of Orchard Hills #1 in Greenwood Village reported there were still planes flying constantly over his house. He thought residents should have the ability to know the tail numbers of offending aircraft, and should have the ability to specifically complain. Training airplanes are affecting personal property. He thought the flights schools should be sued by city councils, etc. for infringing on residents' peace on their properties.

B. **FROM CACNR EMAIL ADDRESS** – None.

3. **CONSENT AGENDA:** The Consent Agenda included the November 3, 2021, draft CACNR minutes; a Treasurer's Report dated November 24, 2021, which showed a balance of \$4,384.08; and the CACNR report to the November 12, 2021 ACPAA meeting from Alison Biggs. On the motion of Andy Jones, duly seconded, the Consent Agenda was approved.

4. **ITEMS REMOVED FROM CONSENT AGENDA:** None.

5. **COMMITTEE REPORTS:**

A. **EXECUTIVE /WORK PLAN COMMITTEES** –

1. The meeting with the flight schools was scheduled for December 6 at 2:00 p.m. Others who wished to be a part of that meeting were identified and would be provided with information on how to access it.

2. Invoices had been generated for each Regular Member, and would be going out in the next few days, to their Representatives and Alternates. Payments were to be sent to the address at the airport, which was on the invoice.

B. **COMMUNITY OUTREACH** – As Melissa Coudeyras will be leaving CACNR soon, the committee will need a new chair.

C. **FLY QUIET** – Bill Wasmund had provided a written report for the committee, which was included in the email packet. In relation to an incentive program for pilots to fly quieter, there are many factors to be considered which make it hard to judge a pilot's ability to fly quiet at any given time. More consideration is needed. Flight schools may need to fund mufflers and prop conversions etc. to make planes quieter. The Airport is looking into developing a proposal for rewarding pilots who comply with Fly Quiet procedures that will be presented to CACNR. Another approach might be based on reinforcement.

Work is still being done to find a second location for a noise abatement sign, possibly between taxiways Charlie 6 and 8 which are centrally located and provide a larger area for the sign. A runup area is slated for 2022 if grant money and approval are given.

The committee is still looking at other airports and their noise abatement programs and how they compare to ours.

Question was asked who the target audience was for the sign, with the response being any aircraft that operates on the Airport. Andy asked about posters being placed in the flight schools, with the response that they are already there; Mike Fronapfel stated that the Airport has provided posters to the FBO's and flight schools and even framed them to make them nice to hang. Fly Quiet brochures have also been distributed. They are also mailed to all gate card holders. Question was asked if we can follow up on a regular basis. Fronapfel stated that new gate cards are mailed out every October.

Question was asked about the budget for the sign. Rachel Keller stated that will be part of the FAA grant.

D. **NOISE MONITORS** – The committee would like to provide CACNR with another in-depth look at the capabilities of the Noise Monitoring software. Question was asked about the portable noise monitor placed at the agreed upon location in Highlands Ranch. Rachel Keller indicated it can be left there as long as good weather holds and it is not needed elsewhere.

1. A summary of the October Noise Report follows:

Total Local Operations: Oct – 11,698	Sept. – 13,547	Aug. – 12,181	July – 12,151	June – 12,974	May – 9,243	April – 13,579
Total Operations: Oct – 27,315	Sept. – 30,309	Aug. – 29,544	July – 29,468	June – 30,148	May – 22,855	April – 27,444
YTD Total Operations: Oct – 264,135	Sept. – 236,820	Aug. – 206,511	July – 176,967	June – 147,499	May – 117,351	April – 94,496
Noise Events: Oct – 30,553	Sept. – 31,664	August – 30,170	July Total – 30,495	June total – 34,335	May Total – 28,869	

Noise Events Recorded at Each Noise Monitor:

<u>Oct. Totals:</u>	<u>Oct. 60 – 69 db:</u>	<u>Oct. 70-79 db:</u>	<u>Oct. 80-89 db:</u>
9,175 Golf Course	5,739 Meridian	3,432 Golf Course	536 Airport East
7,435 Meridian	5,541 Golf Course	1,635 Meridian	195 Golf Course
3,110 State Park	2,167 State Park	923 Airport East	54 Meridian
3,075 Airport East	2,013 Parker	919 State Park	21 State Park
2,236 Parker	1,575 Airport East	217 Parker	9 Grandview Estates
1,553 Grandview Estates	1,339 Grandview Estates	203 Grandview Estates	7 Greenwood Village
1,160 Greenwood Village	1,066 Castle Rock	121 Greenwood Village	6 Parker
1,125 Castle Rock	1,032 Greenwood Village	59 Castle Rock	3 Hunters Hill
806 Lone Tree	749 Lone Tree	57 Lone Tree	0 Castle Pines
535 Hunters Hill	492 Hunters Hill	40 Hunters Hill	0 Castle Rock
178 Castle Pines	159 Castle Pines	19 Castle Pines	0 Lone Tree
165 Sagebrush Park	151 Sagebrush Park	14 Sagebrush Park	0 Sagebrush Park

Oct. noise events in the 90+ decibel range were: Airport East – 41 Golf Course – 7 Meridian – 7 State Park - 3 Grandview Estates – 2

Noise Complaints and Numbers of Households: Oct – 1,174 & 42 Sept – 1,618 & 55 August – 1,497 & 67 July – 1,562 & 112

October Complaints:

455 U Douglas County (39%)	72 Other (6%)
239 Greenwood Village (20%)	67 Aurora (6%)
121 Castle Rock (10%)	12 Highlands Ranch (1%)
102 Centennial (9%)	7 Lone Tree (0.6%)
94 U Arapahoe County (8%)	4 Denver (0.3%)
	1 Cherry Hills Village(0.09%)

October Households:

10 U Arapahoe County (24%)	2 Highlands Ranch (5%)
8 U Douglas County (19%)	2 Lone Tree (5%)
8 Greenwood Village (19%)	1 Castle Rock (2%)
6 Other (14%)	1 Cherry Hills Village (2%)
2 Aurora (5%)	1 Denver (2%)
2 Centennial (5%)	

Comparatively, in September 2021, there were 1,618 complaints from 30,309 operations. In August 2021, there had been 1,497 complaints from 29,544 operations. In July 2021, there had been 1,562 complaints from 29,468 operations; in June 2021, there had been 1,476 complaints from 30,148 operations.

Year to Date, at the end of **October 2021**, there had been 12,104 complaints from 349 households:

Complaints:

3,427 U Douglas County (28%)	177 Highlands Ranch (1.5%)
3,223 U Arapahoe County (27%)	86 Parker (0.7%)
1,836 Greenwood Village (15%)	48 Lone Tree (0.4%)
1,131 Centennial (9%)	38 Denver (0.3%)
1,040 Castle Rock (8.6%)	34 Castle Pines (0.3%)
625 Other (5%)	2 Cherry Hills Village (0.02%)
437 Aurora (3.6%)	

Households:

106 U Arapahoe County (30%)	11 Aurora (3%)
80 Greenwood Village (23%)	8 Highlands Ranch (2%)
35 U Douglas County (10%)	7 Castle Pines (2%)
26 Other (7.5%)	6 Castle Rock (2%)
25 Centennial (7%)	6 Parker (2%)
16 Denver (4.6%)	1 CHV (0.3%)
12 Lone tree (3%)	

October had 90 noise complaint responses requested, 59 by email (66%) and 31 by telephone (34%). **Year to date** at the end of October 2021, there had been **1,189 responses requested**, with 647 requests made by email (54%) and 542 by telephone (46%).

1,048 of the 1,174 complaints in October were about flights during **day hours** (89%); 126 were about **night flights** (11%)

Year to date at the end of October, the **top five complaining households** were in:

2,494	Unincorporated Douglas County (21%)	1,235	Unincorporated Arapahoe County (10%)
1,362	Greenwood Village (11%)	1,167	Unincorporated Arapahoe County (9.6%)
		882	Castle Rock (7%)

Props accounted for 70% of the complaints by aircraft type in October, while **jets accounted for 29% of the complaints**, and **1% were about helicopters**. These figures do not include complaints made by the top complaining household.

Departures were responsible for **45%** of the complaints in October. **Arrivals** were responsible for **36%** of the complaints, and **Training** was responsible for **18%** of the complaints in October. Again, these figures do not include complaints made by the top complaining household.

The graph showing the 13-month relationships between airport operations and the numbers of complaints with and without the top complaining household removed was again provided.

The October and Year to Date complaint maps continued to show the **largest cluster of complaints** located north and slightly west of the airport's north-south runway. In October, there had been 3 complaining households from outside the map boundaries. Year to date by the end of October, there had been 27 households located outside the map area.

Four October 2021 Radar Track Density Maps were included, which demonstrated that Metroplex has changed the flight tracks for Centennial Airport. The relationship between DIA traffic and that of Centennial Airport was demonstrated, with Centennial traffic being routed around DIA traffic, causing a huge impact for residents on the ground in this area. Question was asked if it would be worth comparing year to year or 5 years? Airport staff can and has generated a 35-year comparison as well.

Question was asked if Metroplex changed the altitudes of Centennial flights. Response was that no change was made to altitudes, only flight tracks. Question was asked about Elbert County on the noise complaints, as we had a public comment from an Elizabeth resident. It falls under "other". Request was made for that to be separated out. Mike Fronapfel and Rachel Keller stated that could be considered now that there are more complaints from that area.

Question was asked about any recourse CACNR has with the flight schools? Rachel Keller stated that outreach with the flight schools and collaborating with them is what we can do. The goal is to develop a good relationship and gain their cooperation. We can't make them do anything. The Airport meets with the flight school multiple times a year. It's in the flight schools' best interest to fly quiet and be good neighbors. Mike Fronapfel said that majority of flights are operating legally. It is rare that someone is operating outside of legal parameters. Rachel Keller noted when the flight training "boxes" were created 30 years ago, there weren't homes in those areas and they were created for safety. This will be part of the discussion with the flight schools. Question was asked about quiet hours. Rachel Keller said that voluntary quiet hours are between 10 pm and 7 am. It was noted pilots have to do some night operations for their ratings.

E. **WORK PLAN** – No report.

6. **FAA REPORTS:**

A. **CENTENNIAL (APA) AIR TRAFFIC CONTROL TOWER** – No report

7. **OTHER REGULAR MONTHLY REPORTS:**

A. **ACPAA** – No report

B. **AIRPORT DIRECTOR'S REPORT** – Mike Fronapfel reported strong activity at the airport, with October showing large jet fuel sales. Five new hangars will be under development in the next year, with ten more to come.

The airport has received 3 small grants received so far, with a possibility of some additional grants in the next year.

The Colorado Aircraft Business Association Is looking into laser pointers aimed at aircraft, which can blind pilots. It may consider legislation to prohibit this. Question was asked if they have a lobbyist to take it forward? Fronapfel indicated CABA does have a lobbyist and they are working to get someone to sponsor such legislation.

Fronapfel indicated he and Rachel Keller would be attending a Planning and Zoning meeting at the City of Centennial, regarding a residential development proposed that is too close to the Airport. It was considered the worst location ever seen by them, and the airport strongly opposes the development. Noise monitors at that location regularly exceed 90 decibels.

8. **OLD BUSINESS:**

A. **DRAFT 2022 MEETING SCHEDULE FOR CACNR & ACPAA, WITH CACNR REPRESENTATIVES TO ACPAA** – The draft 2022 meeting schedule was provided, and dates were discussed. ACPAA does not meet in January, so whether CACNR wanted to mirror that schedule was considered. Brad Pierce said it didn't have to be decided tonight, but following further discussion, it was agreed to meet in January, particularly to consider follow-up to the December meeting with the flight schools.

Candace Moon noted the need to have a combined January/February CACNR report to the February ACPAA meeting. She will be able to represent CACNR in March 2022.

B. **CONGRESSIONAL QUIET SKIES CAUCUS** – Brad Pierce is working with Emily Tranter of N.O.I.S.E. to arrange a meeting with Congressman Jason Crow.

C. **ACTION ITEMS FROM PRIOR CACNR MEETINGS** – No action

D. **UC DAVIS NOISE AND EMISSIONS SYMPOSIUM** – May 1-3, 2022 at UC Davis in California. Registration likely will be similar to the prices from the 2020 event: Early Bird by January 31, 2022, \$380 for community. Registration begins 12/1/21.

9. **NEW BUSINESS:**

A. **INFORMATION SHARING** - None.

10. **PUBLIC COMMENT:** Kim Hellweg of Elizabeth commented that they should have someone from Elbert County representing them on CACNR. Elizabeth has grown a lot, and residents are noticing more aircraft noise. She understands the need for flight schools to use all the training areas, but would prefer flights not be so consistent over her neighborhood. Brad Pierce will provide her with information on how to become a CACNR member. Also, Dan Avery will reach out to the Elbert County manager to see if the County is interested.

Randy Johnson thanked Gina Conley for coming out to his house to help Rachel with the noise monitor.

11. **NEXT MEETINGS:**

A. CACNR – January 5, 2022	6:30 p.m. 7565 S Peoria Street, Unit 9D
February 2, 2022	6:30 p.m. 7565 S Peoria Street, Unit 9D
March 2, 2022	6:30 p.m. 7565 S Peoria Street, Unit 9D
B. ACPAA – Dec 9, 2021	3:00 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO
Jan 2022	Not Meeting
Feb 10, 2022	3:00 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO
March 10, 2022	3:00 p.m. 7565 S Peoria Street, Unit 9D, Englewood, CO

12. **ADJOURNMENT:** The meeting was adjourned at 8:04 p.m.

Melissa Coudeyras, Acting Secretary



Centennial Airport Community Noise Roundtable Report
December 1, 2021
Presented by Melissa Coudeyras, CACNR Vice Chair

- Public Comment
 - There were 3 members of the public to make public comments. Focus was on noise from the flight schools.
- Executive Work Plan Committee
 - A virtual meeting has been set up with the flight schools, Airport, CACNR Executive Committee, Commissioners, and other interested parties for Monday, December 6 at 2:00.
 - Invoices have been sent out to all jurisdiction member representatives for 2022.
- Community Outreach Committee
 - Looking for a new chair.
- Fly Quiet Committee
 - Working on incentive program for pilots to fly quieter. More factors involved than previously considered affecting pilot's ability to "fly quiet."
 - Looking at second location for noise abatement sign. Discussion about fly quiet posters and brochures being distributed to flight schools.
- Noise Monitors
 - Committee will work with Mike and Rachel to continue presentations to the Round Table.
 - Portable noise monitor in Highlands Ranch can be there until weather changes.

Notes from ACPAA Mtg. Dec. 9, 2021

Melissa Coudeyras, CACNR Representative

2022 budget presented. Budget approved.

Hotel status update given by Robert Olislagers-two principals have settled on a management company and hope to agree on equity position. New majority partner. Four Points/Marriott requires that management partner has equity in the venture. Buyer is in receipt of the proposed draft hotel lease.

Fuel and Operations report for November 2021 presented. Up from November 2020.

Mike Fronapfel gave the legislative report.

Year end video was played.

Meeting adjourned.

CACNR/ACPAA 2022 MEETING SCHEDULES

CACNR REPRESENTATIVES TO 2022 MEETINGS OF THE ARAPAHOE COUNTY PUBLIC AIRPORT AUTHORITY

ACPAA meets at 3:00 p.m., 7565 South Peoria Street, Englewood, CO 80112

<u>CACNR MEETINGS</u>	<u>ACPAA MEETINGS</u>	<u>CACNR REPRESENTATIVE</u>	<u>REPORT DUE DATE</u> (To centennialairport.com)
January 05	ACPAA not meeting		include with Feb CACNR report
February 02	February 10		February 04 (see above)
March 02	March 10	Candace Moon	March 04
April 06	April 14		April 08
May 04	May 12		May 06
June 01	June 16 (note 3 rd Thursday)		June 10
July 06	ACPAA not meeting		include with Aug CACNR report
August 03	August 11		August 05 (see above)
September 07	September 08		May Not Be Time to Write
October 05	October 13		October 07
November 02	November 10		November 04
December 07	December 08		May Not Be Time to Write



ITEMS FOR FOLLOW-UP

For Review on January 5, 2022

- Request was made for a completion date to be added for each item, so CACNR needs to identify its expectations in that regard. Dates need to be established at the time needed action is identified. **ALL**
- Consider what amount of detail is needed; can it be assumed some things will be done without being listed here? **ALL**
- At all meetings, various ideas seem to be discussed/suggested regarding work of the committees, and on other topics as well. Do such discussions need to be listed, or will each committee make note of the ideas, determine follow-up and report back to the larger group? **ALL**

01/06/21

1. Request was made for CACNR to receive a summary or informational report about results from portable noise monitors when they were utilized. **Rachel Keller or airport staff**

02/03/21

1. Explore holding some type of meeting between CACNR and flight school operators; see if Noise Abatement Guidelines (NAG) should be updated; could NAG be formally incorporated into flight school best practices **Brad Pierce and Fly Quiet Committee**
2. Consider rolling #2 into the Work Program; possibly link with good neighbor incentives; Brad Pierce would coordinate such efforts, perhaps starting with consideration of updating the NAG. **Brad Pierce**

03/03/2021

1. Follow up to be done with Jason Crow re Congressional Quiet Skies Caucus. **EC or ?**

04/07/2021

1. Robert Olislagers to work with Dave Adams from Inspiration area about the turning route of southbound flights. **RO**
2. Had John Kocon from northwest of Castle Pines provided more information to airport staff for further exploration of dramatic change in flight paths affecting his area? **Rachel Keller**
3. Jason Schwartz to be asked to provide a cost estimate for two portions of Phase Two. **EC**
4. Reiteration of #2 & #3 from 02/03/21 **Fly Quiet Committee and Brad Pierce**
5. Forward agenda for meeting noted in #7 to Mike Fronapfel and Rachel Keller. **Bill Wasmund.**
6. Send CACNR information about numbers and types of complaints or requests for information received from the public, and the information provided accordingly. **Airport Staff**

7. CACNR to determine what, if any, additional information about noise and its effect on the public it and the public would like to regularly receive, and how that would be used; explore capabilities of current noise monitor system to generate that information; explore capabilities and costs of other systems if appropriate. **No champion identified – could become a major project for a future Work Program?**
8. More attention to be given to the training boxes in the practice areas southeast and southwest of the airport. **Robert Olislagers & airport staff**
9. Ask control tower to attend the meeting under development and referenced in #7 above. Also include the impacts of flight noise in immediate proximity to the airport. **Brad Pierce and Fly Quiet Committee.**
10. Provide information to the public about the anticipated demand for more flight training as the need for new pilots is increasing./**No champion identified – do we pursue at this time or in the future?**

05/05/21

1. Continue working with Jason Schwartz re Phase II of Work Program Project. **EC**
2. Develop spreadsheet with nighttime data – 10:00 p.m. -6:00 a.m. **Airport Staff**
3. Follow-up possibly making the Good Neighbor Procedure an official procedure. **Liam Clark**
4. More meetings to be held with flight schools (one held). Information being gathered from flight schools to see if there is any consistency. **EC with JS/Fly Quiet/Airport Staff**
5. Still need representative to represent CACNR at June and August-December ACPAA meetings. **All**
6. Communicate with Colorado members of Congressional Quiet Skies Caucus, including link to report from the U.S. Department of Transportation, Office of Inspector General. **Brad Pierce**

06/02/21

1. Staff updates awaited for adding Noise Abatement Guidelines to Whispertrack's electronic tablet application. **Rachel Keller**
2. Continue work on CACNR Orientation materials for placement on CACNR website. **Work Plan and Community Outreach Committees**

08/04/21

1. Clarify the number of flight schools operating at Centennial – one report indicates there are 7, but another indicates only 4. **EC and Airport Staff**
2. Hold education session about capabilities of the noise monitoring system, to include ambient thresholds which are adjusted annually, additional types of data available which CACNR would find useful, information of how locations of current monitors were selected, etc. **Noise Monitor Committee/EC**
3. Continue work to identify location of 2nd noise abatement sign. **Fly Quiet Committee**

09/01/21

1. Continue working to find date for meeting with flight schools, CACNR, ACPAA, Counties **EC with JS/Fly Quiet/Airport Staff**

2. Provide information about FAA Part 150 and Part 161 **EC**
3. Continue exploring incentives for voluntary use of fly quiet procedures; exploring how hotline information is collected and used at other airports; possibly pursue inviting those high on the complaint list to learn more about how their actions affect the communities. **Fly Quiet Committee**

10/06/21

1. Send out invoices for 2022 Regular Members. **Treasurer/EC**
2. Schedule Emily Tranter of N.O.I.S.E. to virtually attend a future CACNR meetings. **Brad Pierce**
3. Efforts continued to be made to find an acceptable date for the meeting with the flight schools and the CACNR Executive Committee, the CACNR Fly Quiet Committee members, airport staff and County Commissioners from both Arapahoe and Douglas Counties. **EC with JS/Fly Quiet/Airport Staff**
4. Explore ways to utilize social media to reach the public. **Community Outreach Committee**
5. Looking at incentives for use of the fly quiet procedures; examine how hotlines are handled at other airports; and establish a location for a second noise abatement sign. **Fly Quiet Committee**
6. If appropriate, share information about carbon fiber composite materials and how propeller upgrades might take advantage of reduced power settings, resulting in less noise, weight reduction, longer service life, and possibly increased cruise speed with pilots and with flight schools.
7. Determine feasibility and cost of adding a permanent monitor to the system. **??**
8. Have someone such as Eugene Reindel of Harris Miller Miller & Hanson, Inc. (HMMH) who was instrumental in the placement and workings of the monitors) available for a future meeting. **EC**

11/03/21

1. Review maps to be used in Orientation materials, to provide more detail as appropriate **WP/Staff**
2. Add CACNR email address and website to the airport's website home page under the listing for the Roundtable. **Rachel Keller**
3. Reconsider the approach to the flight schools due to the difficulty in getting them together. **EC/Staff**
4. Fly Quiet reconsidering approach to recognizing pilots who fly quiet. **Fly Quiet Committee**
5. Consider possible need for 'outside' assistance in getting the orientation material on the website **WP and Community Outreach Committees**
6. Staff analysis of recent flight tracks and updated heat maps to be shared with CACNR **Rachel Keller**
7. CACNR to be provided with current ambient noise levels for each noise monitor. **Rachel Keller**
8. Make information about air space classifications and their effects easily available to the public. **??**

12/01/21

1. Provide future in depth look at capabilities of the noise monitoring software. **Noise Monitor Committee**
2. Provide 35 year comparison of noise data. **Airport staff**
3. Provide separate noise data for Elizabeth area, due to increased complaints from that area. **Airport staff**
4. Approve 2022 CACNR meeting schedule. **CACNR**
5. Arrange meeting with Jason Crow re Congressional Quiet Skies Caucus. **Brad Pierce with Emily Tranter**
6. Early Bird registration for two from CACNR to attend UC Davis Noise and Emissions Symposium. **CACNR**
7. Provide information re becoming CACNR member to Kim Hellweg of Elizabeth. **Brad Pierce**
8. Reach out to Elbert County to ascertain its interest in becoming a CACNR member. **Dan Avery**

From: UC Davis Air Quality Research Center <airqualityevents@ucdavis.edu>
Sent: Wednesday, December 15, 2021 12:01 PM
To: albiggs@aol.com
Subject: What's over the horizon for the ANE Symposium?



Symposium Topics

After almost 2 years of virtual programming, our Technical Program Committee is excited to greet you in-person once again at the 2022 ANE Symposium. After great consideration and input from you, our planning is underway with sessions being developed and speakers being contacted. The Symposium will be hosted in it's original format with trainings on Sunday afternoon and general sessions on Monday and Tuesday.

How Airports Can Work with Their Communities on Noise Abatement Procedures

This session will provide a discussion on how San Diego International Airport helped facilitate a dialogue with local communities and industry stakeholders (notably the FAA and airlines) to evaluate the feasibility flight procedure modifications to reduce noise impacts outside the CNEL 65 contour.

Climate Change and Aviation – Pathways to NetZero

Climate Change is an existential threat to the aviation industry and, in response, the sector is aggressively pursuing pathways to decarbonize. The industry recognizes that urgent action is required to reduce its contribution to climate change as rapidly as possible while maintaining the vital societal and economic benefits of air transportation. This session will explore what the aviation industry's impact on climate change is, share how the sector is striving to achieve "net zero", and update on the regulatory process and developments that are needed to help the industry achieve these goals.

What is "Meaningful" Community Engagement?

The aviation sector includes a wide variety of key stakeholder groups. What does "meaningful" community engagement mean to these different groups, and how do they define "community?" Our panelists will discuss their answers to these questions and share thoughts on where community engagement has worked well.

Health Effects of Noise – From Local to National; Three Perspectives on Research, Legislation, and Implementation

Human health factors related to aircraft noise have been well documented as a complex subject that involves stakeholders at many levels, from local land use planners to global health organizations. How do we go from research to implementation? This session will focus on hearing from three perspectives that include research, land use implementation and legislative efforts.

Noise Metrics and Impacts: Thinking Beyond DNL

The FAA uses the DNL metric and related thresholds for all noise-based decision making purposes which is informed by the Schultz curve published in 1978. The DNL metric was adopted by the FAA in 1981 to meet the requirements established by the Aviation Safety and Noise Abatement Act of 1979.

Over the past 40 years, aircraft noise has changed such as:

- Performance-Based Navigation procedures enable precise flight tracks which result in increased concentrations of flights and noise over some areas
- Steadily increasing volumes of aircraft traffic
- New, and quieter, airframes and engines

Although the effects of these changes have been pointed out in subsequent research and reports, the DNL metric remains as the single metric the FAA uses for assessing “significance in the context of impact analysis”. Speakers from a variety of perspectives will share their thoughts on noise impacts and metrics beyond DNL, for the changing aviation environment, including for communities outside of the DNL-65 contour.

New Entrants and Technology

This session will discuss how eVTOL (electric Vertical Takeoff and Landing) manufacturers and operators are developing these aircraft with noise reduction in mind and planning their route structure to serve the community’s transportation needs while also minimizing noise impacts

Aviation Emissions: Reduction Efforts and Current Research

This session will exhibit the current efforts and research toward understanding and reducing aviation-related emissions. There are various sources of air pollutant and greenhouse gas emissions at airports including, but not limited to, aircraft, ground support equipment (GSE), aircraft auxiliary power units (APUs), passenger and employee motor vehicles, construction activities, and building energy use. Airports are actively working toward understanding and reducing emissions from these sources, however doing so is often complicated by the varying levels of ownership and control of the sources, as well as the involvement of multiple stakeholders. Additionally, there is ongoing research into the efficacy of various emission reduction efforts and their best means of implementation. This session will include presentations from airport representatives on their efforts, successes, and lessons learned. Additionally, research and results pertaining to aviation-related emissions and reduction methods will be presented.

Follow the program development [here](#)

Meet the Planning Committee!

With symposium planning underway, we wanted to introduce you to our spectacular team that will be designing the 2022 event. Each committee member was chosen because they have several years of experience within the aviation industry and hold a unique perspective on noise or emissions topics. We are delighted to welcome back several committee members as well as include new ones with fresh ideas! You can read their biographies on our website [here](#).

Steve Alverson
Aviation Noise Consultant,
Carmichael, CA

Ernie Kosower
Retired Civil Engineer & Community Lead

Gabe Andino

Noise Abatement & Environmental Compliance, Teterboro Airports

Jonathan Bagg

Director, Stakeholder and Industry Relations, NAV CANADA

Rachel Burbidge

Senior Policy Officer, Environment and Climate Change, EUROCONTROL

Andrew Christian

Aircraft Psychoacoustics Researcher, Structural Acoustic Branch, NASA Langley Research Center

Justin Cook

Senior Principal Aviation Consultant, Environmental Science Associates

Cindy Gibbs

Manager - Airports, BridgeNet International

Alex Gertsen

Director, Airports & Ground Infrastructure, National Business Aviation Association

Robbie Gross

Environmental & Atmospheric Scientist, Crawford, Murphy & Tilly

Ian Jopson

Head of Environmental and Community Affairs, NATS

Sjohnna Knack

Program Manager, Planning & Environmental Affairs, SDIA

Xiaobo Liu

Aviation Noise Specialist, Port Authority of New York and New Jersey

Eric Lu

Principal, Ramboll

Glenn Morse

Retired - Director of Industry Affairs, United Airlines

John Pehrson

Principal, CDM Smith

Jorge Rodriguez Cifuentes

Group Leader MITRE Corporation

Michele Ross

Assistant Manager, Community Relations, Metropolitan Airports Commission

Sam Tan

Environmental Project Manager, DFW International Airport

Emily Tranter

N.O.I.S.E. National Coordinator, Lockridge Grindal Nauen P.L.L.P. Government Relations Specialist

Yolanka Wulff

Executive Director, Community Air Mobility Initiative

Darlene Yaplee

Co-Founder, Concerned Residents of Palo Alto

Do you know someone who may enjoy hearing news about the Symposium? Have them sign up for our [mailing list here](#)!

Sincerely,

Sandra Hall
Symposium Manager
Air Quality Research Center
<https://anesymposium.agrc.ucdavis.edu/>

University of California, Davis <https://agrc.ucdavis.edu>



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Centennial Airport Monthly Noise Report



January 2022

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1 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.

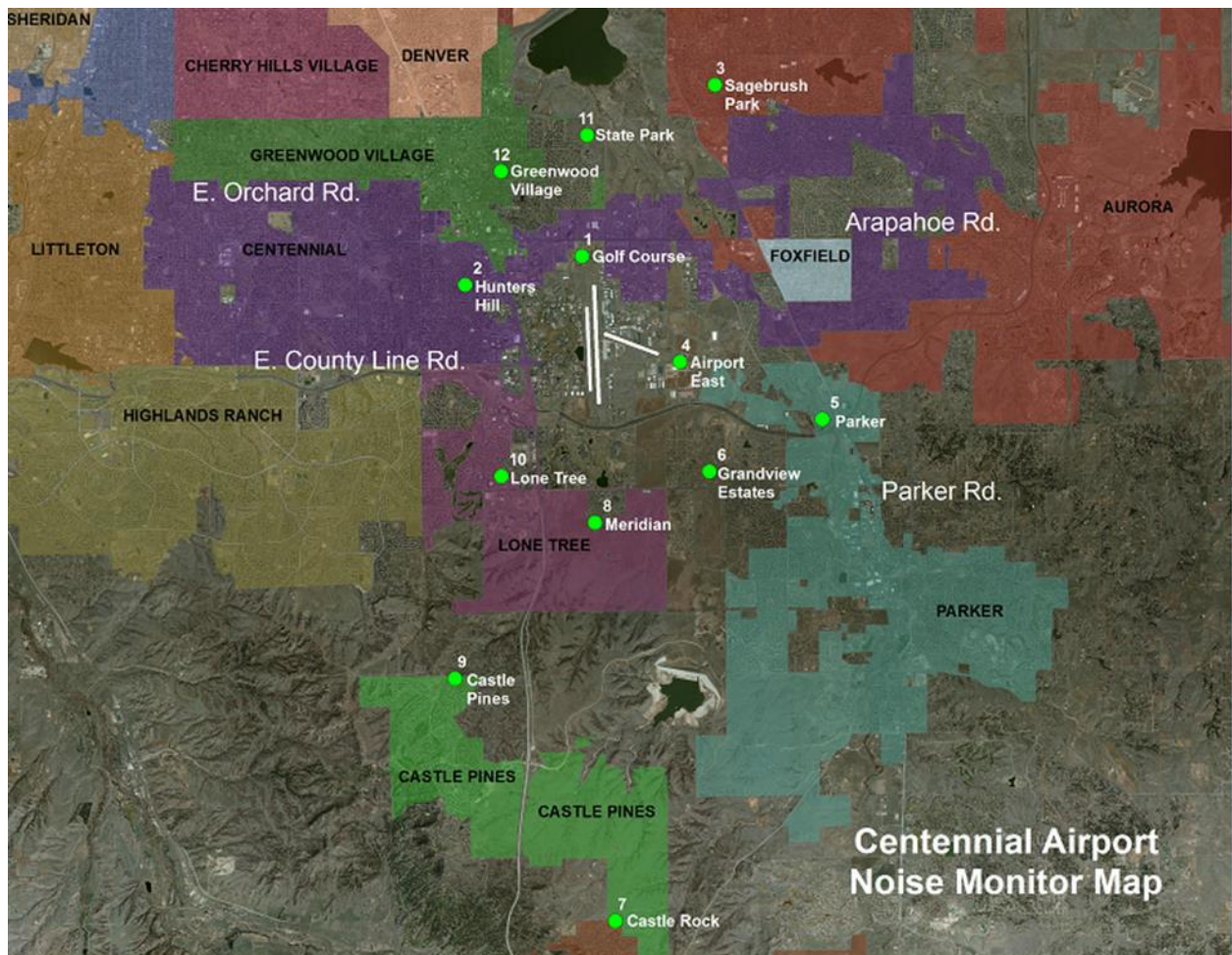
Visual Flight Rules (VFR) – A set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going. A flight plan is not required when the pilot is operating under Visual Flight Rules.

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.

Overview

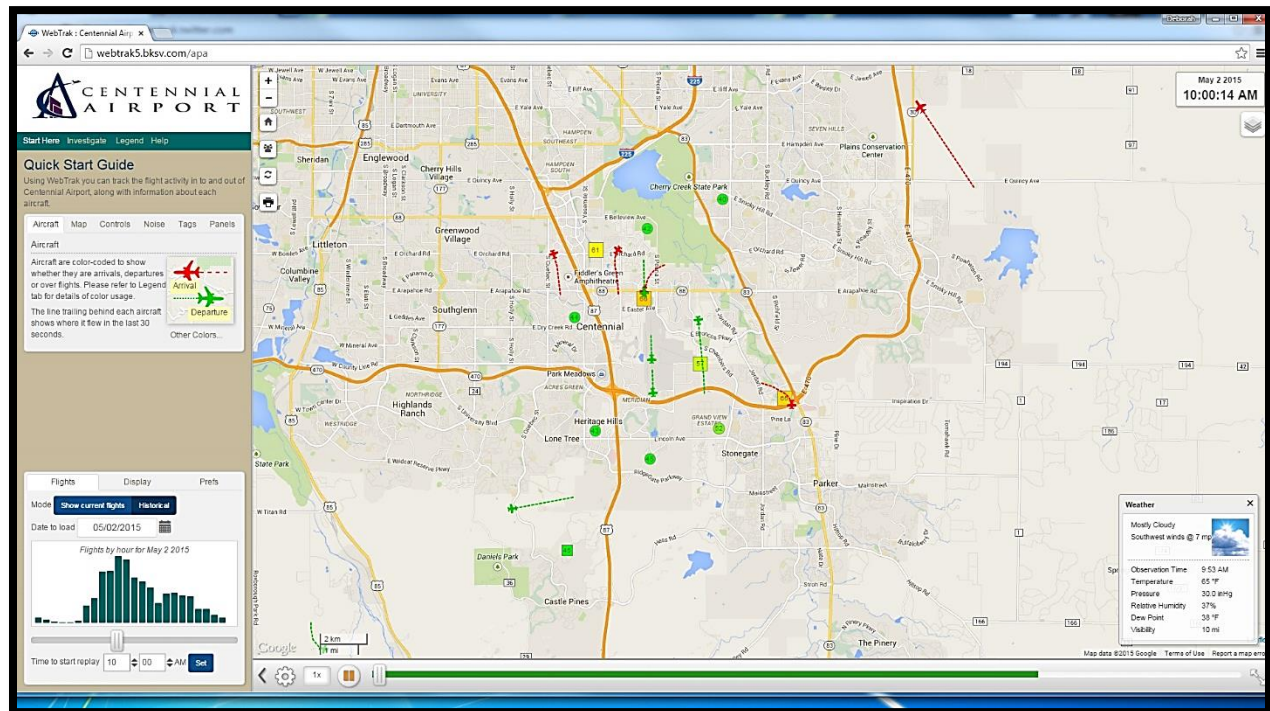
3 ABOUT APA'S NOISE MONITORING PROGRAM

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://viewpoint.emsbk.com/apa8>

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 ININERANT				LOCAL		
	AIR TAXI	G.A.	MILITARY	TOTAL INTINERANT	AIR TAXI	G.A.	MILITARY	TOTAL	G.A.	MILITARY	TOTAL LOCAL
January	2,494	3,405	114	6,013	1,133	5,391	88	6,612	9,190	78	9,268
February				0				0			0
March				0				0			0
April				0				0			0
May				0				0			0
June				0				0			0
July				0				0			0
August				0				0			0
September				0				0			0
October				0				0			0
November				0				0			0
December				0				0			0
Y-T-D Totals	2,494	3,405	114	6,013	1,133	5,391	88	6,612	9,190	78	9,268

	IFR OVERFLIGHTS				VFR OVERFLIGHTS				TOTAL OPERATIONS	
	AIR TAXI	G.A.	MILITARY	TOTAL INTINERANT	AIR TAXI	G.A.	MILITARY	TOTAL		
January	2	2	1	5	41	98	11	150	January	22,048
February				0				0	February	
March				0				0	March	
April				0				0	April	
May				0				0	May	
June				0				0	June	
July				0				0	July	
August				0				0	August	
September				0				0	September	
October				0				0	October	
November				0				0	November	
December				0				0	December	
Y-T-D Totals	2	2	1	5	41	98	11	150	Y-T-D Totals	22,048

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

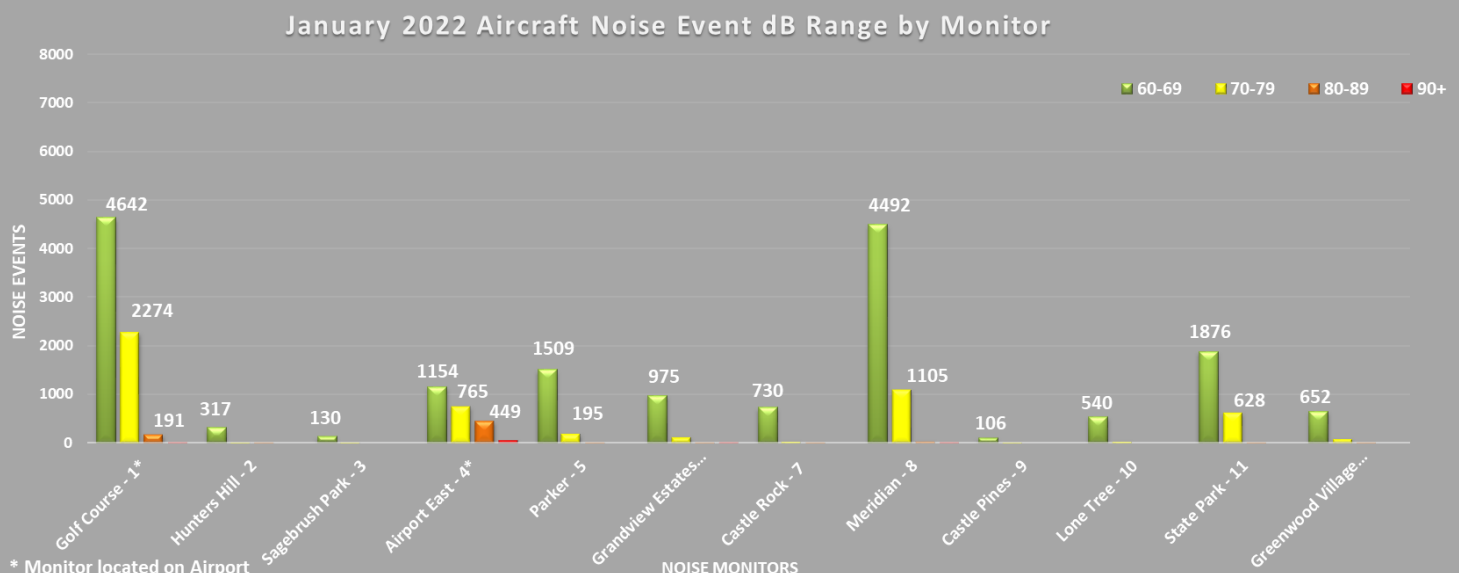
The following data displays the amount and associated decibel level of aircraft noise events at a given monitor. An aircraft noise event must contain the following characteristics:

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.

January 2022 Aircraft Noise Event Decibel Range By Monitor					
Monitor	60-69	70-79	80-89	90+	Totals
Golf Course- 1*	4642	2274	191	13	7120
Hunters Hill- 2	317	24	4	0	345
Sagebrush Park- 3	130	7	0	0	137
Airport East- 4*	1154	765	449	50	2418
Parker- 5	1509	195	5	0	1709
Grandview Estates- 6	975	125	3	1	1104
Castle Rock- 7	730	34	1	0	765
Meridian- 8	4492	1105	37	1	5635
Castle Pines- 9	106	9	0	0	115
Lone Tree- 10	540	35	0	0	575
State Park- 11	1876	628	18	0	2522
Greenwood Village- 12	652	91	3	0	746
Totals	17123	5292	711	65	23191

*Monitor located on Airport



7 JANUARY 2022 NOISE COMPLAINTS

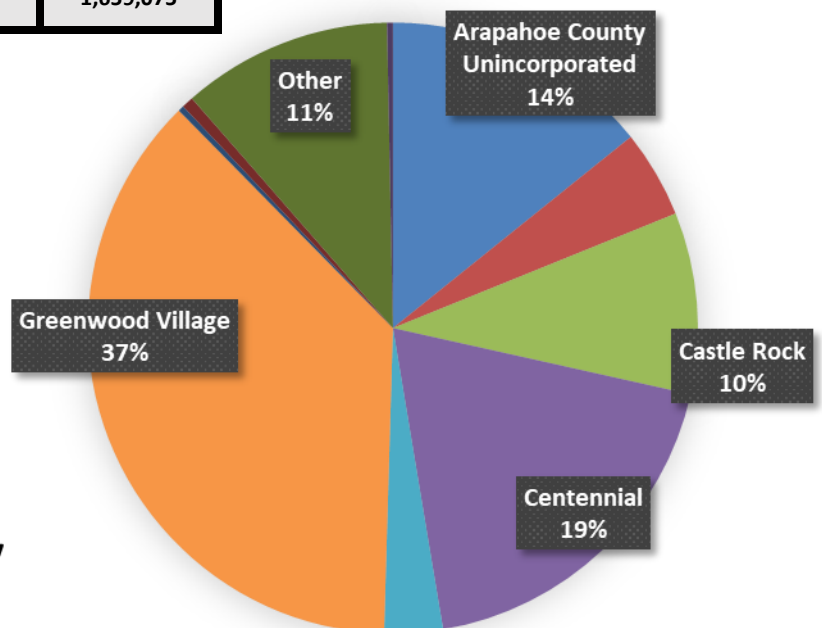
In January, Centennial Airport received 323 complaints from 22 households.

January/YTD Noise Complaints			Population
Municipality	Complaints	Households	Census 2018
Arapahoe County Unincorporated	46	6	83,764
Aurora	15	1	374,114
Castle Pines	0	0	10,507
Castle Rock	31	2	64,827
Centennial	61	2	110,831
Cherry Hills Village	0	0	6,650
Denver	0	0	716,492
Douglas County Unincorporated	10	2	100,536*
Greenwood Village	120	3	15,801
Highlands Ranch	1	1	105,264
Lone Tree	2	1	14,653
Parker	1	1	55,636
Other	36	3	UNK
Total	323	22	1,659,075

*Douglas County Unincorporated Population with Highlands Ranch Removed

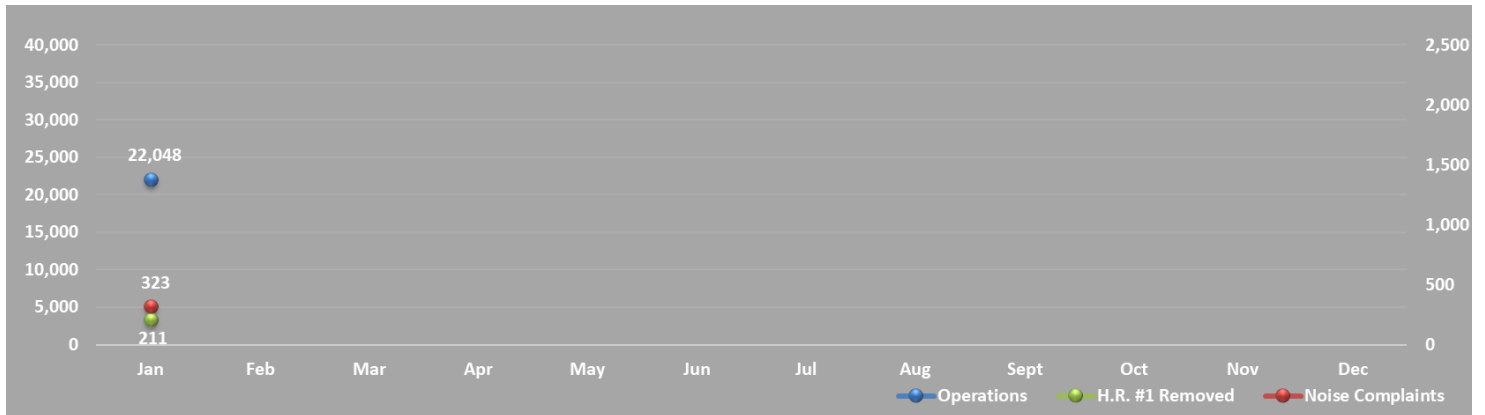
Noise Complaints Response Requested	
Email	23
Phone	7
Total	30

Complaints per Municipality

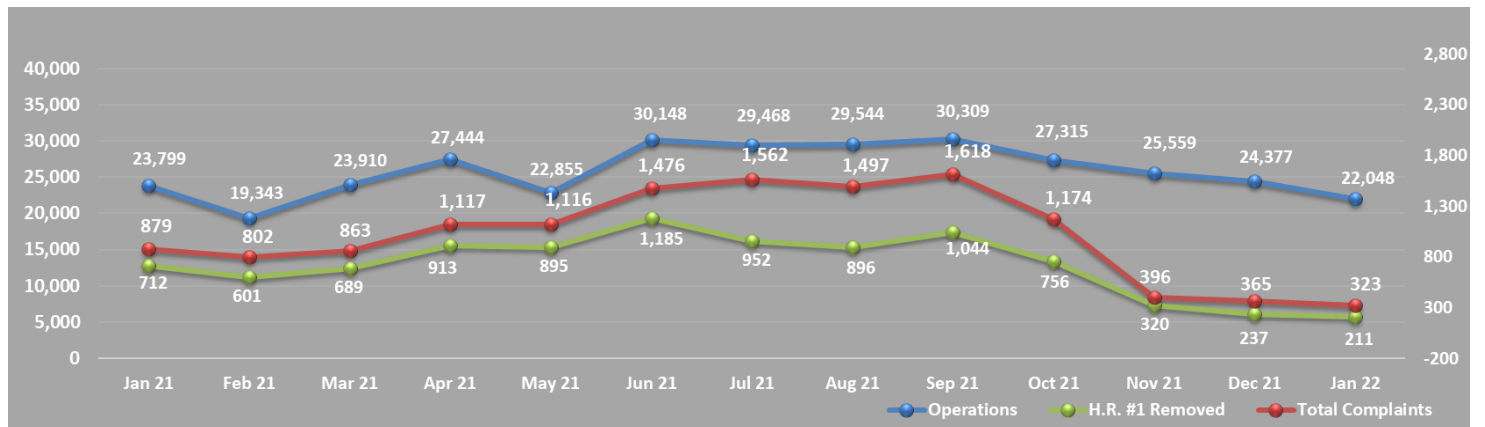


Time Complaint Received	Jan
Day Hours (7:00 am - 9:59pm)	312
Night Hours (10:00 pm - 6:59 am)	11
TOTAL	323

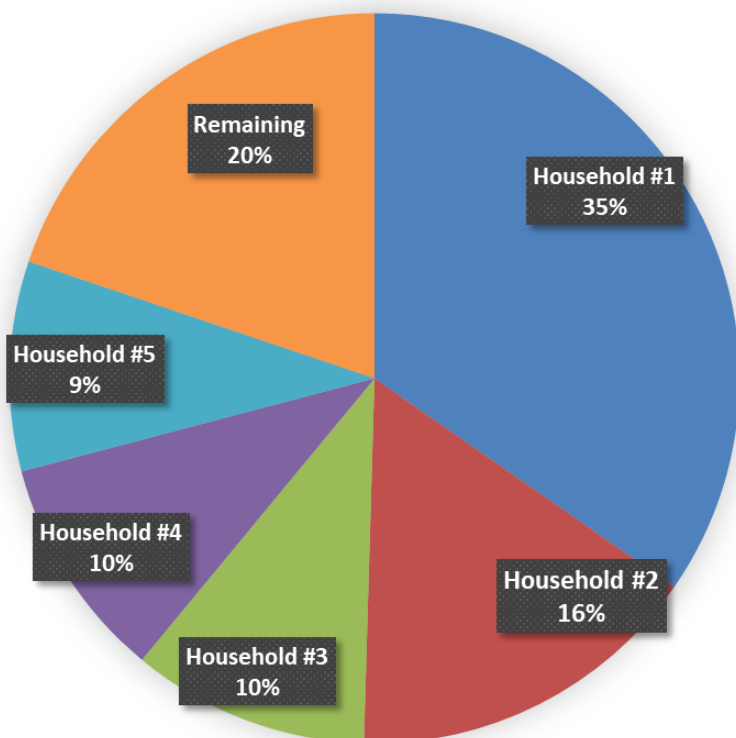
Current 12 Month Trend



Previous Year 13 Month Trend



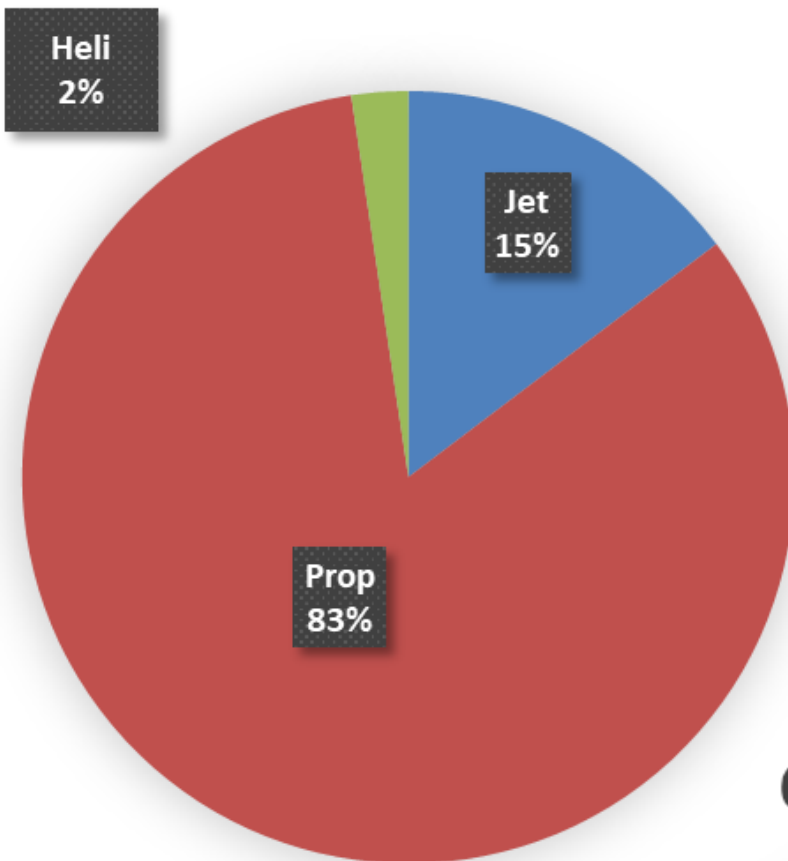
Top 5 Household Complaints YTD



Top 5 Household Complaints YTD		
Household	Complaints	Households
Household #1	112	Greenwood Village
Household #2	51	Centennial
Household #3	34	Other
Household #4	32	Arapahoe County Unincorporated
Household #5	30	Castle Rock
Remaining	64	
Total	323	

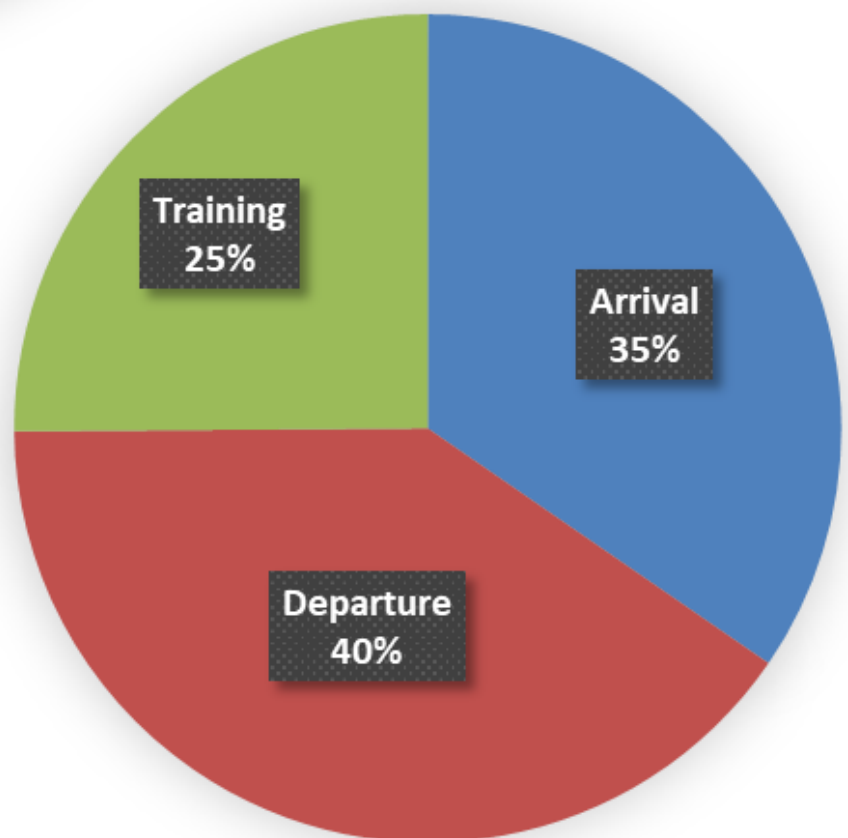
Complaints by Aircraft Type

JANUARY 2022



Complaints by Operation Type

*Top Household
Removed



8 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**.



Noise Hotline: 303-790-4709

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