

**THE COMMITTEES WILL MEET AT 6:30 P.M.
THE REGULAR MEETING WILL BEGIN AT 7:00 P.M.**

Centennial Airport Community Noise Roundtable

December 4, 2019

Arapahoe Board Room, 6924 S. Lima Centennial, CO 80112

6:30 p.m. – 8:30 p.m.

Chair: Brad Pierce **Vice Chair:** Melissa Coudeyras **Treasurer:** Tom Dougherty* **Secretary:** Alison Biggs
CACNR Mission: Utilizing Partnerships to Reduce Airport Noise for the Benefit of Neighboring Communities

AGENDA

1. CALL TO ORDER AND DETERMINATION OF QUORUM:

<i>Arapahoe County:</i>	Kathleen Conti/Bill Skinner	<i>Foxfield:</i>	Pam Thompson/Dave Goddard
	Paul Krier/Joseph Berger	<i>Greenwood Village:</i>	Tom Dougherty/Karen Blilie
<i>Douglas County:</i>	Abe Laydon/Lauren Pulver	<i>Lone Tree:</i>	Mike Anderson/Jennifer Drybread
	Alison Biggs/Vacant	<i>Parker:</i>	Amy Holland/Vacant
<i>ACPAA:</i>	Robert Olislagers/Michael Fronapfel	<i>AOPA:</i>	Robert Doubek/John Hirshman
<i>Aurora:</i>	Brad Pierce/Liia Koiv-Haus	<i>CABA:</i>	Don Kuskie/Mike Straka
<i>Castle Pines:</i>	Melissa Coudeyras/Ben Price	<i>CDOT Aeronautics Div:</i>	Todd Green/Vacant
<i>Castle Rock:</i>	Jason Gray/James Townsend	<i>FAA APA Control Tower:</i>	Diana Hanley/Ron Curry
<i>Centennial:</i>	Candace Moon/Andrea Suhaka	<i>FAA District Office:</i>	John Bauer/John Sweeney
<i>Cherry Hills Village:</i>	Al Blum/Afshin Safavi	<i>FAA TRACON:</i>	Steve Martin/Bill Dunn

6:30 pm – 7:00 pm COMMITTEE MEETINGS – COMMUNITY OUTREACH, FLY QUIET, NOISE MONITORS

7:00 p.m.

2. APPROVAL OF AGENDA:

SPECIAL PRESENTATION: Trisha Coberly, Cob-Web Creations, CACNR Website

7:30 p.m.

***APPOINTMENT BY CHAIR**

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

4. CONSENT AGENDA:

- A. DRAFT MINUTES, November 6, 2019 – Alison Biggs, Secretary
- B. TREASURER'S REPORT– Jamie Hartig/Tom Dougherty, Treasurer

5. ITEMS REMOVED FROM CONSENT AGENDA

6. COMMITTEE REPORTS:

- A. COMMUNITY OUTREACH – Melissa Coudeyras, Chair
- B. FLY QUIET – Don Kuskie, Chair
- C. NOISE MONITORS – Bette Todd, Chair
 - 1. Noise Report
- D. WORK PLAN – Alison Biggs, Chair
- F. STUDY GROUP – Brad Pierce, Chair
 - 1. Proposed CACNR Bylaws

7. FAA REPORTS:

- A. DISTRICT OFFICE – John Bauer
- B. CENTENNIAL AIRPORT AIR TRAFFIC CONTROL TOWER – Diana Hanley
- C. TRACON – Steve Martin

8. OTHER REGULAR REPORTS:

- A. ARAPAHOE COUNTY PUBLIC AIRPORT AUTHORITY – Nov. 14, 2019, Bob Doubek; Treasurer & Candace Moon, CACNR
- B. AIRPORT DIRECTOR'S REPORT – Robert Olislagers
 - 1. Airport Activity
 - 2. Legislative
 - 3. Litigation
 - 4. Master Plan
 - 5. Other
- C. METROPLEX
 - 1. Denver Metroplex Final Environmental Assessment and Errata
- D. NEXTGEN ADVISORY COMMITTEE (NAC) – Brad Pierce – Next Meeting 12/12/19, Washington, DC area
- E. N.O.I.S.E. –
 - 1. November 20 Policy Summit and Community Involvement Workshop - Brad Pierce, Melissa Coudeyras, Mike Anderson

**THE COMMITTEES WILL MEET AT 6:30 P.M.
THE REGULAR MEETING WILL BEGIN AT 7:00 P.M.**

A. OLD BUSINESS:

- A. UC DAVIS AVIATION NOISE AND EMISSIONS SYMPOSIUM 2020 – March 1, 2020 in San Diego
- B. 2020 MEETING SCHEDULE FOR CACNR AND ACPAA, with CACNR REPRESENTATIVES TO ACPAA
- C. CONGRESSIONAL QUIET SKIES CAUCUS

10. NEW BUSINESS:

- A. INFORMATION SHARING

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

12. NEXT MEETINGS:

- A. **CACNR** – Feb 05, 2020 6:30 p.m. Arapahoe Board Room, 6924 S. Lima, Centennial 80112
Mar 04, 2020 6:30 p.m. Arapahoe Board Room, 6924 S. Lima, Centennial 80112

- B. **ACPAA** – Dec 12, 2019 3:00 p.m. Wright Brothers Room, Centennial Airport, 7800 S Peoria Street, Englewood, CO
(Melissa Coudeyras representing CACNR)

13. ADJOURN

CENTENNIAL AIRPORT COMMUNITY NOISE ROUNDTABLE
MINUTES

November 6, 2019

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:** Jamie Hartig **Secretary:** Alison Biggs

1. **CALL TO ORDER, ROLL CALL, and QUORUM:** The meeting was called to order at 6:30 p.m. by Vice Chair Melissa Coudeyras. A quorum was present, and the following were in attendance:

Arapahoe County:	Bill Skinner	Centennial:	Candace Moon
Arapahoe County:	Paul Krier	Foxfield:	Pam Thompson
Douglas County:	Jamie Hartig	Greenwood Village:	Karen Blilie
Douglas County:	Alison Biggs	Lone Tree:	Mike Anderson
ACPAA:	Robert Olislagers	Parker:	Amy Holland
Aurora:	Liia Koiv-Haus	AOPA:	Robert Doubek
Castle Pines:	Melissa Coudeyras	CABA:	Don Kuskie

Others in attendance were Douglas County new Representative, to replace Jamie Hartig, Lauren Pulver; Centennial Alternate Representative Andrea Suhaka; Fly Quiet Committee Member Bill Wasmund; and ACPAA Staff Dylan Heberlein.

Those absent were:

Castle Rock:	Jason Gray/James Townsend	FAA APA Control Tower:	Diana Hanley/Ron Curry
Cherry Hills Village:	Al Blum/Afshin Safavi	FAA District Office:	John Bauer/John Sweeney
CDOT Aeronautics Div:	Todd Green/Vacant	TRACON:	Steve Martin/Bill Dunn

Following the call to order and the roll call, the meeting was recessed so the committees could meet. The meeting was reconvened at 7:00 p.m.

INTRODUCTIONS: Both new and continuing Representatives and Alternates introduced themselves, and newer Representatives were happily welcomed to the group.

2. **APPROVAL OF AGENDA:** On the motion Amy Holland, duly seconded, the agenda was approved as presented.

3. **PUBLIC COMMENT:** Via email, CACNR had been contacted by the town of Louisville, which was interested in information about CACNR and its operation. There is interest in doing something similar in relation to Rocky Mountain Metro Airport. Mike Fronapfel and Alison Biggs had responded, provided some resources, invited attendance at any CACNR meeting, and offered to be of future assistance as desired by Louisville.

4. **CONSENT AGENDA:** The Consent Agenda included the October 2, 2019 draft minutes, and a Treasurer's Report dated November 1, 2019, which showed a balance of \$16,539.09. On the motion of Mike Anderson, duly seconded, the Consent Agenda was approved.

5. **ITEM(S) REMOVED FROM CONSENT AGENDA:** None

6. **COMMITTEE REPORTS:**

A. **COMMUNITY OUTREACH** – Melissa Coudeyras and Amy Holland reported on progress with updating the website. Questions raised at the previous meeting had been answered satisfactorily and work was proceeding. The plan was still to have a presentation by CobWeb Creations at the December CACNR meeting.

B. **FLY QUIET** – Don Kuskie reported work was still occurring on the committee's tasks. Items included signage additions or updates, including whether or not to light them, what costs might be and who would pay for changes, exact messages to be placed on the signs, etc. Placing some at the three run-up areas was still being explored. Robert Olislagers indicated the FAA is quite specific about what is allowable, including what is permissible for lighting.

The Committee will continue to track pattern usage and is considering sending complaints related to training flights to the flight schools on a monthly basis, so they are more aware of the impact such flights have on the communities.

C. **NOISE MONITORS** – Candace Moon reported the committee had selected four airports which are similar to Centennial in terms of demographics and training traffic. It will be studying what they do about airport traffic and noise.

The September 2019 Noise Report was reviewed by Dylan Heberlein. It showed there had been 32,420 total operations in September. 15,315 of those were local flights. Year to date, there had been a total of 271,571 operations.

During September, there were 27,760 noise events at the 12 noise monitors. Noise events at each monitor were:

8,342 events at the Golf Course monitor on airport property (5,627 in the 60-69 decibel range)
5,635 events at the Meridian monitor (4,403 in the 60-69 decibel range)
2,930 events at the Airport East monitor on airport property (1,738 in the 60-69 decibel range)
2,873 events at the State Park monitor (1,983 in the 60-69 decibel range)
2,333 events at the Parker monitor (2,109 in the 60-69 decibel range)
1,806 events at the Grandview Estates (1,595 in the 60-69 decibel range)

1,384 events at the Lone Tree monitor (1,280 in the 60-69 decibel range)
753 events at the Greenwood Village monitor (681 in the 60-69 decibel range)
676 events at the Castle Rock monitor (646 in the 60-69 decibel range)
550 events at the Hunter's Hill monitor (497 in the 60 – 69 decibel range)
271 events at the Castle Pines monitor (247 in the 60-69 decibel range)
207 events at the Sagebrush Park monitor (188 in the 60-69 decibel range)

Eliminating the two monitors on airport property, the top five locations with noise events in the 70-79 decibel range were:

Meridian – 1,182 Parker – 221 Lone Tree – 102
State Park – 880 Grandview Estates – 207

Eliminating the two monitors on airport property, the five locations with noise events in the 80-89 decibel range were:

Meridian – 46 State Park – 9 Grandview Estates - 4
Greenwood Village – 11 Hunter's Hill – 8

Eliminating the two monitors on airport property, there were three locations with noise events in excess of 90 decibels:

Meridian – 4 State Park & Greenwood Village – 1 each

In September, there had been 561 complaints from 72 households:

Of the 72 households, 17 had been in Unincorporated Arapahoe County (24%); 16 were in Unincorporated Douglas County (22%); 11 were in Greenwood Village (15%); 10 were in Lone Tree (14%); 6 had been from Centennial (8%); 5 were from Other (7%); 2 from Parker (3%); and 1 each from Aurora, Castle Pines, Cherry Hills Village, Denver, and Highlands Ranch (1% each).

Of the 561 complaints, 186 had come from Centennial (33%); 107 complaints had come from Unincorporated Douglas County (19%); 87 were from Greenwood Village (16%); 77 were from Unincorporated Arapahoe County (14%); 51 were from Lone Tree (9%); 29 from Aurora (5%); 11 from Other (2%); 7 from Parker (1%); 3 from Cherry Hills Village (0.5%); 1 each from Castle Pines, Denver, and Highlands Ranch (0.2%).

36 complainers had requested responses from the airport, with 21 of those requests made by email, and 15 by telephone.

Year to date, there had been 4,329 complaints from 253 households:

The highest number of complaining households were: 72 from Unincorporated Arapahoe County (28%); 49 from Greenwood Village (19%); 35 from Unincorporated Douglas County (14%); 19 from Centennial (8%); 17 each from Lone Tree and Other (7% each); 11 from Highlands Ranch (5%); 10 from Denver (4%); 8 from Castle Pines (3%); 7 from Parker (3%); 4 each from Aurora and from Cherry Hills Village (2%).

Of those households, 1,329 complaints had come from the 19 located in Centennial; 1,033 were from the 72 households located in Unincorporated Arapahoe County; 704 were from 35 households in Unincorporated Douglas County; 439 from 49 households in Greenwood Village; 316 from 4 households in Aurora; 296 from 17 households in Lone Tree; 72 from 7 households in Parker; 61 from the 17 in 'Other'; 35 from 11 households in Highlands Ranch; 23 from 10 households in Denver; 11 from 4 households in Cherry Hills Village; and 10 from 8 households in Castle Pines..

YTD, the top five complaining households came from Centennial (1,289); Unincorporated Arapahoe County (680); Unincorporated Douglas County (502); Aurora (312); and Lone Tree (135). There were 1,411 remaining complaints.

Of the 561 September complaints, 505 (90%) were about daytime flights and 56 (10%) were about nighttime flights. YTD, 3,842 (88.7%) of the complaints were about daytime flights and 487 (11.3%) were about nighttime flights.

Comparatively, there were 561 complaints resulting from 32,420 operations in September 2019 (17.3%). There had been 566 complaints resulting from 32,339 operations in September 2018 (17.5%).

Jets accounted for 34% of the complaints in September; props caused 55% of the complaints; helicopters were the cause of 2%;, and there were 9% unknown. Departures were responsible for 54% of the complaints; arrivals were 27%; training was 9%; and 10% were unknown.

The September complaint map showed the locations of the complaints, with 4 being outside the map boundaries: two were from Unincorporated Douglas County; one from the area near Chatfield Reservoir in Jefferson County, and one from Indian Hills, Co.

The Year to Date complaint map showed the wide geographic range of complaints about airport noise, not including the 18 households outside the map boundaries: Franktown, Elizabeth, Castle Rock, Jefferson County, Douglas County, Denver, Boulder, Golden, Black Hawk, and Lakewood. A Radar Track Density Map from September 2019 was provided.

Question was asked if the portable monitors were being used; response was no. Some complainers are apparently hesitant to have a portable monitor set up at their locations. Staff have placed the portable units in the vicinity of a household with numerous complaints in the past; that may have to be the approach again, to get an accurate picture of potential problems.

- D. **WORK PLAN** – The group continued to work of the orientation manual and the 2017 annual report.
- E. **STUDY GROUP** – The Study Group was working on CACNR Bylaws to reflect the content of the MOU.

7. **FAA REPORTS:**

- A. **DISTRICT OFFICE** – None.
- B. **APA AIR TRAFFIC CONTROL TOWER** – None
- C. **TRACON** – None

8. **OTHER REGULAR MONTHLY REPORTS:**

A. **ARAPAHOE COUNTY PUBLIC AIRPORT AUTHORITY** – Robert Doubek, ACPAA Treasurer, had provided a written report from the October 10, 2019 meeting. Prior to the regular board meeting, a groundbreaking ceremony had been held at the construction site of the new Centennial Airport Aviation and Community and Administration Facility. The proposed 2020 budget was presented and would be acted upon in December.

B. **AIRPORT DIRECTOR'S REPORT** – Robert Olislagers noted that the five-year contract for maintenance of the noise monitors had expired, and ACPAA would now be responsible for that \$100,000 expense. There may be other associated costs as well. He noted the timetable for the new administrative building would be completion in June or July 2020, with a moving in date of August 2020.

Legislatively, there was not much happening, which could result in the government needing to function with another continuing resolution. The FAA had issued nothing yet on the Denver Metroplex project. The ACPAA Master Plan was a work in progress; no word on when anything might be shared with CACNR.

- C. **METROPLEX** – See above.

D. **NEXTGEN ADVISORY COMMITTEE (NAC)** – The next meeting of this group would be on December 12, 2019 and Brad Pierce would be attending.

E. **N.O.I.S.E.** – The next meeting of this group would be on November 20, 2019, and Brad Pierce, Melissa Coudeyras and Mike Anderson would be attending.

F. **3rd QUARTER LAND USE REVIEW** – There had been 17 land use referrals between July 1, 2019 and September 30, 2019. Of those, six had been approved as submitted. Ten were subject to comments, and one from the Aurora area had been not recommended and was later voted down by the Aurora City Council.

9. **OLD BUSINESS:**

A. **2019 CACNR REPRESENTATIVES TO ACPAA** – Candace Moon would represent CACNR at the November ACPAA meeting.

B. **2020 MEETING SCHEDULE FOR CACNR & ACPAA, INCLUDING CACNR REPRESENTATIVES TO ACPAA** – The 2020 meeting schedule was reviewed, and it was noted the regular January CACNR meeting would fall on New Year's Day. It was also noted ACPAA had not officially approved its calendar yet, so some of those dates might change. By consensus, it was agreed to not hold a CACNR meeting in January 2020. On the motion of Karen Blilie, duly seconded, the 2020 meeting calendar was approved, with the understanding the ACPAA dates would be adjusted if necessary to reflect that group's final schedule.

- C. **CONGRESSIONAL QUIET SKIES CAUCUS** – No report

10. **NEW BUSINESS:**

- A. **INFORMATION SHARING** –

1. UC Davis Aviation Noise and Emissions Symposium 2020, March 1-3, San Diego, California. The program topics and other information about this symposium had been provided, and several CACNR related individuals were interested in attending. It was suggested that CACNR could now afford to make the attendance opportunity available to more than the two called for in CACNR policy. It was noted that someone in one of the CACNR jurisdictions had expressed a concern that the MOU funds were only going to be used to send people to meetings. Following discussion of

appearances, costs, and the benefits to CACNR and ACPAA of the knowledge gained at the type of meetings CACNR Representatives attend, it was generally agreed to have ACPAA staff submit two early registrations; who would attend to represent CACNR would be determined at the December meeting.

2. A *Denver Post* article related to the FAA pushing to become more industry friendly, particularly by reducing hands-on oversight of aviation safety, was shared.

11. **PUBLIC COMMENT:** None

12. **NEXT MEETINGS:**

A. **CACNR** – Dec 04, 2019 6:30 p.m. Arapahoe Board Room, 6924 S. Lima, Centennial 80112

B. **ACPAA** – Nov 14, 2019 3:00 p.m. Wright Brothers Room, Centennial Airport, 7800 S Peoria St., Englewood, CO
(Candace Moon representing CACNR)

Dec 12, 2019 3:00 p.m. Wright Brothers Room, Centennial Airport, 7800 S Peoria St., Englewood, CO
(Melissa Coudeyras representing CACNR)

13. **ADJOURNMENT:** The meeting was adjourned at 7:59 p.m.

Alison Biggs, Secretary

**Centennial Airport Community Noise Roundtable
Treasurer's Report as of December 2nd, 2019**

MOU Contributions		Expenses	
ACPAA	\$10,000.00	B.P. UC Davis Expenses (post-conference)	\$2,160.00
Town of Foxfield	\$250.00	M.C. UC Davis Expenses (post-conference)	\$1,458.76
Cherry Hills Village	\$1,000.00	Go Daddy 3 year Domain Renewal	\$54.51
Greenwood Village	\$1,000.00	2019 N.O.I.S.E Membership	\$1,000.00
City of Castle Pines	\$1,000.00	Go Daddy 3 year Website Hosting Renewal	\$287.64
Douglas County	\$2,000.00	Fairfield and Woods Invoice	\$500.00
City of Aurora	\$1,000.00	Website Acceptance of Proposal	\$250.00
City of Lone Tree	\$1,000.00		
Town of Parker	\$1,000.00		
City of Centennial	1,000.00		
Arapahoe County	2,000.00		
Castle Rock	1,000.00		
Total Contributions	<u>\$22,250.00</u>	Total Expenses	<u>\$5,710.91</u>
Remainder	\$16,539.09		



MONTHLY
Noise Report

October 2019



Centennial Airport
Arapahoe County Public Airport Authority

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2 DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

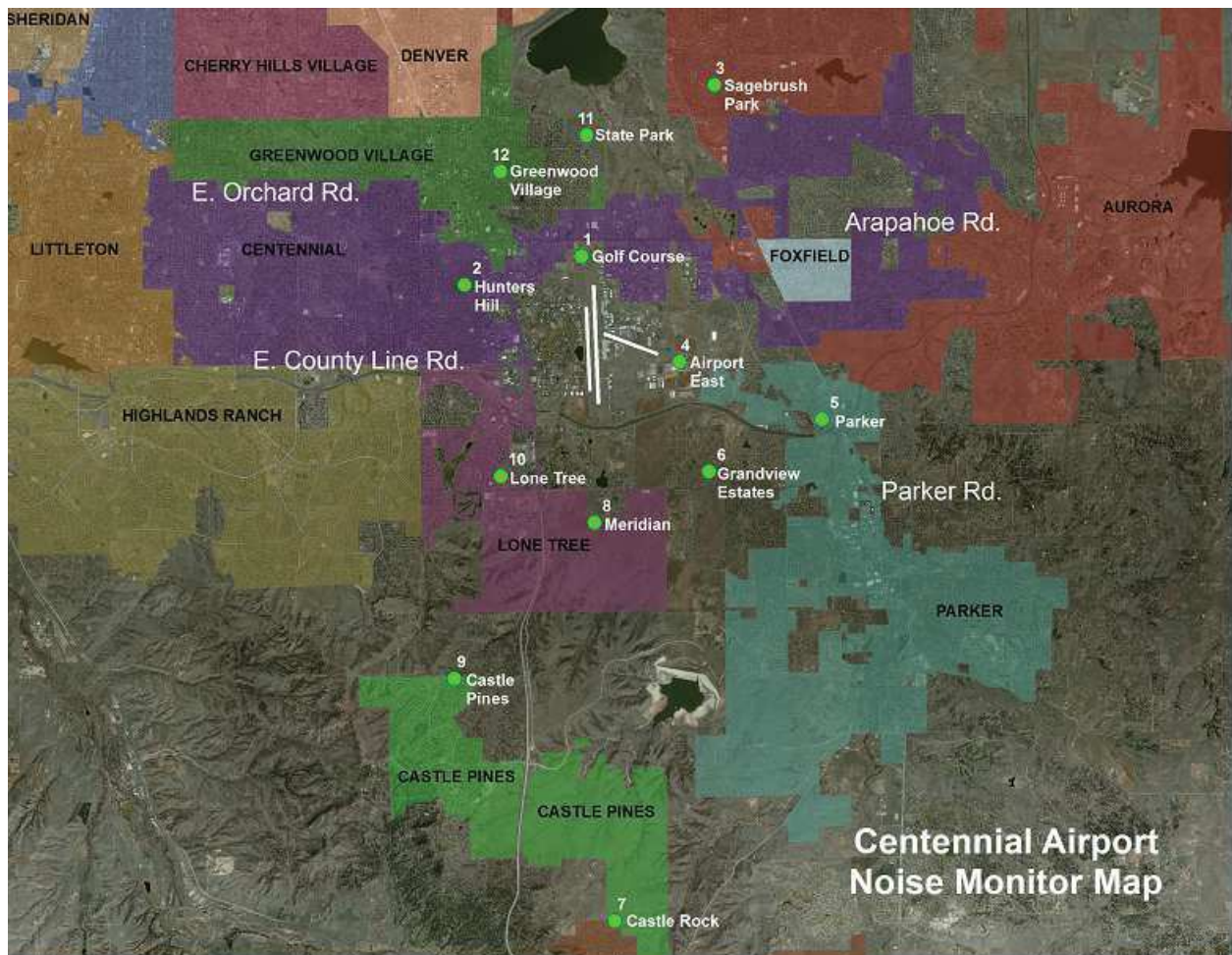
Visual Flight Rules (VFR) – A set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going. A flight plan is not required when the pilot is operating under Visual Flight Rules.

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

Overview

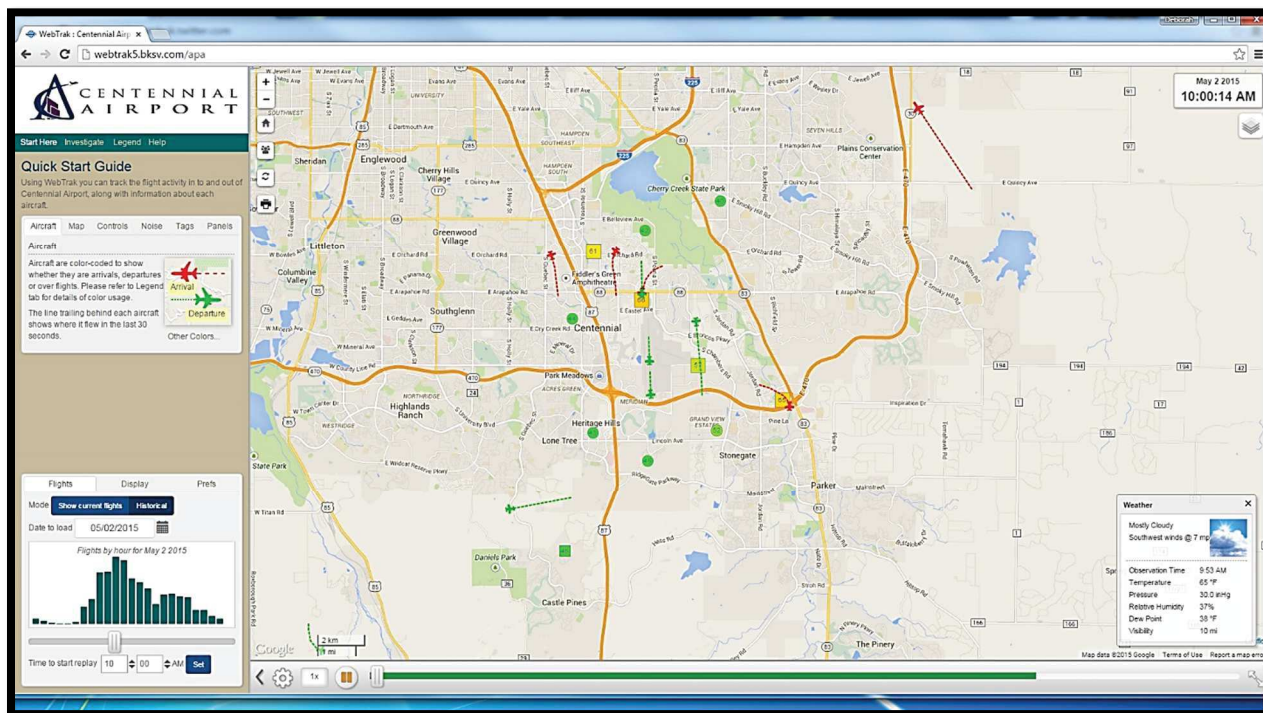
3 ABOUT APA'S NOISE MONITORING PROGRAM

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: <http://webtrak.bksv.com/apa>

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	2,142	3,332	98	5,572	460	7,586	68	8,114	11,190	45	11,235
February	2,122	3,206	157	5,485	425	6,566	97	7,088	9,406	53	9,459
March	2,394	3,658	116	6,168	347	7,898	118	8,363	12,487	38	12,525
April	2,123	3,237	179	5,539	434	9,263	199	9,896	15,269	131	15,400
May	2,325	3,358	203	5,886	445	7,968	131	8,544	15,120	66	15,186
June	2,276	3,498	126	5,900	476	10,052	155	10,683	16,873	117	16,990
July	2,284	3,660	147	6,091	463	10,335	197	10,995	14,678	139	14,817
August	2,418	3,971	205	6,594	645	10,636	161	11,442	17,277	67	17,344
September	2,296	3,774	255	6,325	598	9,483	203	10,284	15,172	143	15,315
October	2,349	3,341	194	5,884	582	7,999	140	8,721	12,414	80	12,494
November				0				0			0
December				0				0			0
Y-T-D Totals	22,729	35,035	1,680	59,444	4,875	87,786	1,469	94,130	139,886	879	140,765

	IFR OVERFLIGHTS				VFR OVERFLIGHTS					TOTAL OPERATIONS
	AIR TAXI	G.A.	MILITARY	TOTAL INTINERANT	AIR TAXI	G.A.	MILITARY	TOTAL		
January	2	15	7	24	127	242	18	387	January	25,332
February	2	11	4	17	111	166	6	283	February	22,332
March	5	16	7	28	111	259	16	386	March	27,470
April	2	4	7	13	139	292	5	436	April	31,284
May	6	7	2	15	77	336	18	431	May	30,062
June	4	13	2	19	104	351	13	468	June	34,060
July	1	9	2	12	77	348	13	438	July	32,353
August	4	7	2	13	133	719	13	865	August	36,258
September	5	4	3	12	98	374	12	484	September	32,420
October	3	4	2	9	125	448	69	642	October	27,750
November				0				0	November	
December				0				0	December	
Y-T-D Totals	34	90	38	162	1,102	3,535	183	4,820	Y-T-D Totals	299,321

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:

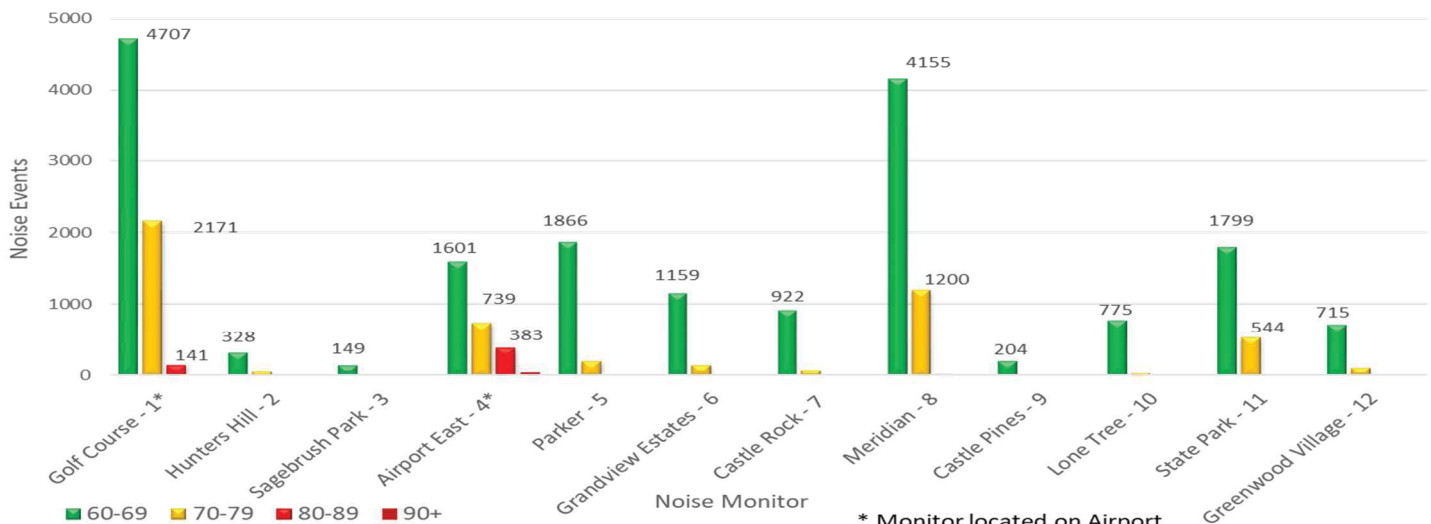
First, the noise event must exceed the ambient noise level. This number varies at every monitor, but is generally greater than 50-55db. Secondly, the noise event must last longer than 5 seconds. Lastly, using radar data, the system must correlate an aircraft with the noise event. This ensures that the 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.

October 2019 Aircraft Noise Event Decibel Range By Monitor					
Monitor	60-69	70-79	80-89	90+	Totals
Golf Course - 1*	4707	2171	141	19	7038
Hunters Hill - 2	328	58	4	0	390
Sagebrush Park - 3	149	13	0	0	162
Airport East - 4*	1601	739	383	37	2760
Parker - 5	1866	204	4	0	2074
Grandview Estates - 6	1159	149	4	0	1312
Castle Rock - 7	922	75	4	0	1001
Meridian - 8	4155	1200	31	10	5396
Castle Pines - 9	204	10	2	0	216
Lone Tree - 10	775	38	3	0	816
State Park - 11	1799	544	8	3	2354
Greenwood Village - 12	715	116	9	1	841
Totals	18380	5317	593	70	24360

*Monitor located on Airport

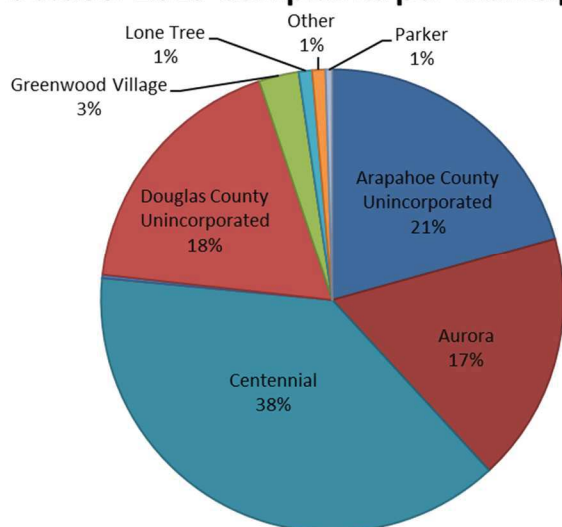
October 2019 Aircraft Noise Event dB Range by Monitor



7 OCTOBER 2019 NOISE COMPLAINTS

For the month of October, Centennial Airport received 430 complaints from 35 households.

October 2019 Complaints per Municipality



Noise Complaints Response Requested

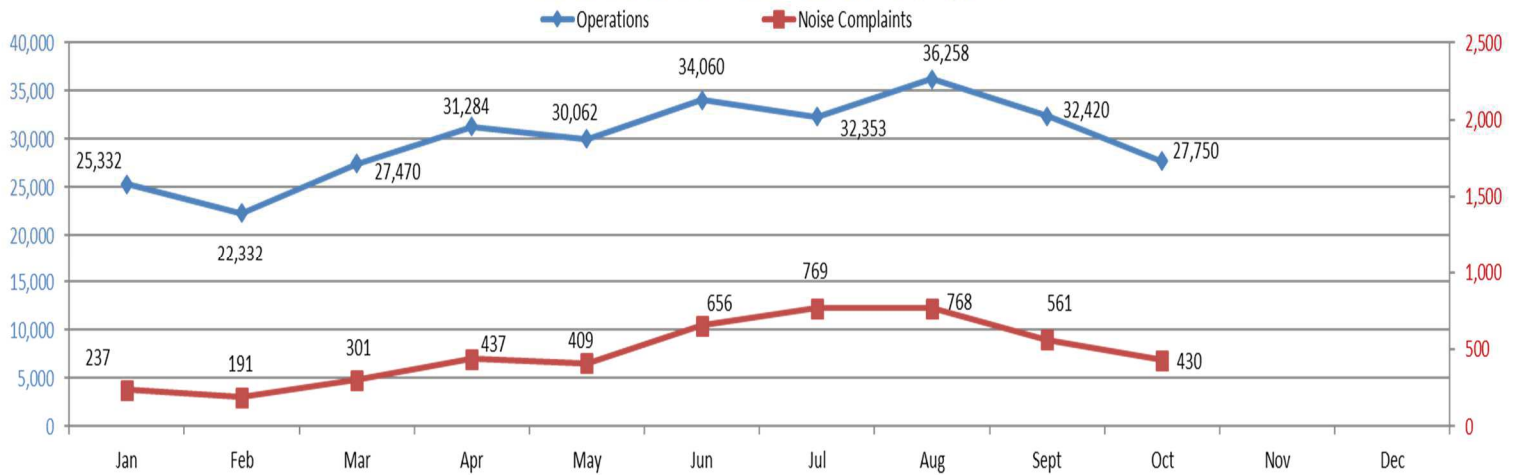
Email	24
Phone	9
Total	33

October 2019 Noise Complaints			YTD	
Municipality	Complaints	Households	Complaints	Households
Arapahoe County Unincorporated	89	12	1122	76
Aurora	75	3	391	5
Castle Pines	0	0	10	8
Castle Rock	0	0	0	0
Centennial	165	3	1494	20
Cherry Hills Village	0	0	11	4
Denver	1	1	24	10
Douglas County Unincorporated	78	5	782	36
Greenwood Village	12	6	451	49
Highlands Ranch	0	0	35	11
Lone Tree	4	1	300	17
Parker	2	1	74	7
Other	4	3	65	18
Total	430	35	4759	261

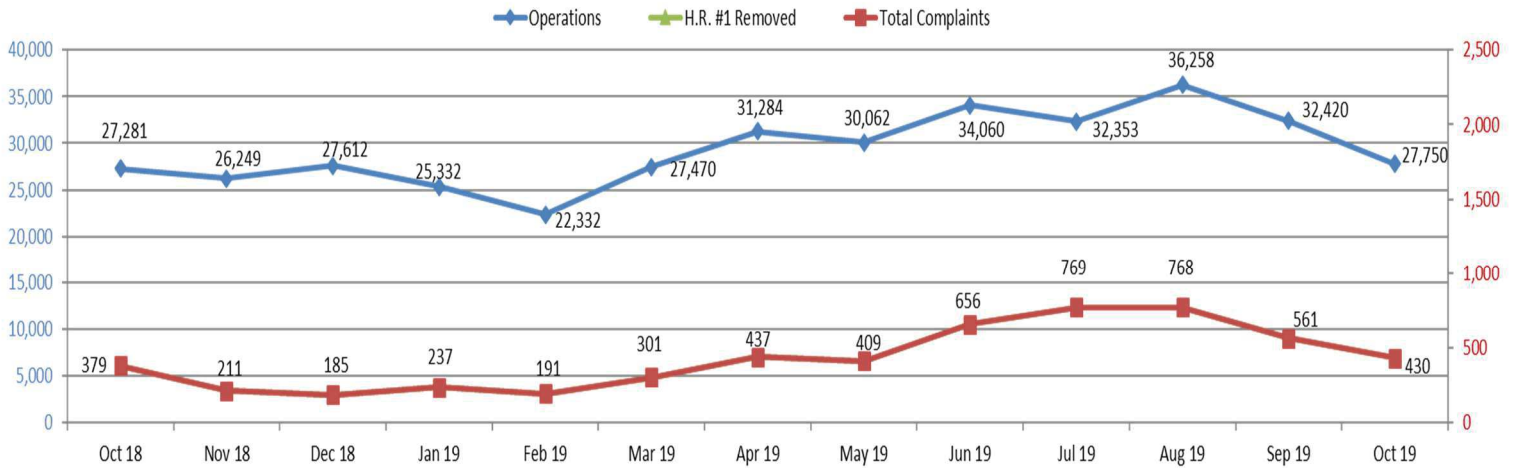
Month Comparison: 2019 Noise Calls - Daytime vs. Nighttime

Time Complaint Received	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	2019 YTD
Day Hours (7:00 am - 9:59pm)	203	166	277	386	374	570	674	687	505	396			4,238
Night Hours (10:00 pm - 6:59 am)	34	25	24	51	35	86	95	81	56	34			521
TOTAL	237	191	301	437	409	656	769	768	561	430	0	0	4,759

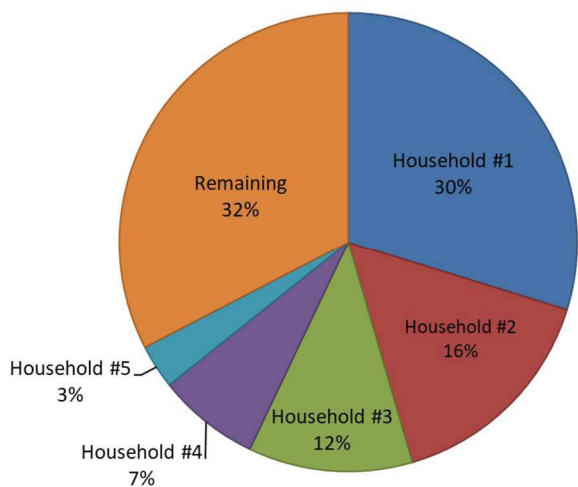
Current 12 Month Trend



Previous Year 13 Month Trend



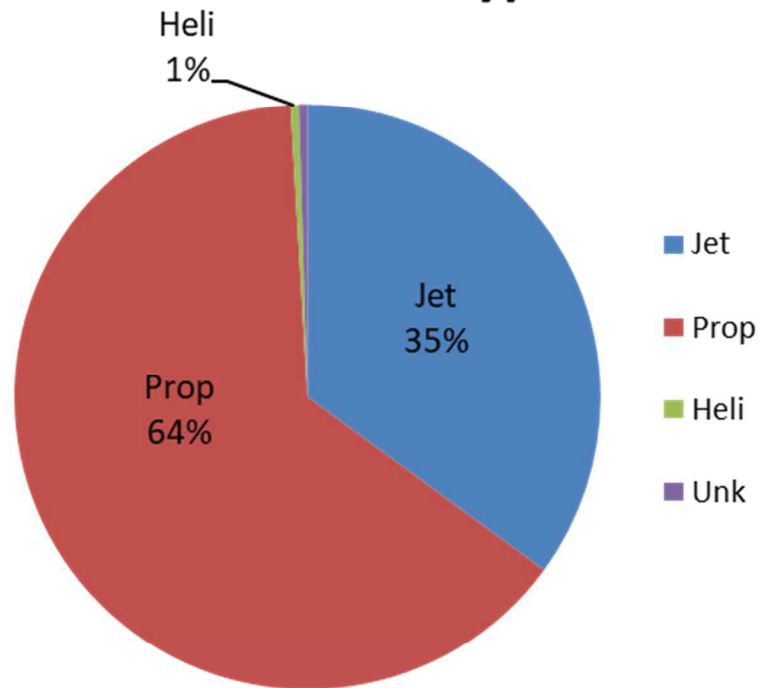
2019 YTD Top 5 Household Complaints



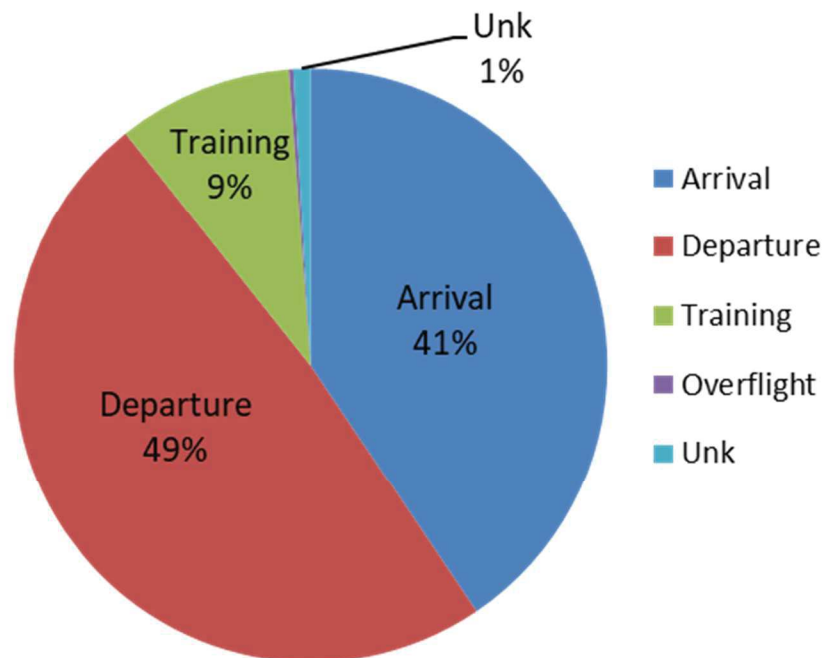
YTD Top 5 Household Complaints

Household	Complaints	Municipality
Household #1	1452	Centennial
Household #2	742	Arapahoe County Unincorporated
Household #3	574	Douglas County Unincorporated
Household #4	333	Aurora
Household #5	135	Lone Tree
Remaining	1523	
Total	4759	

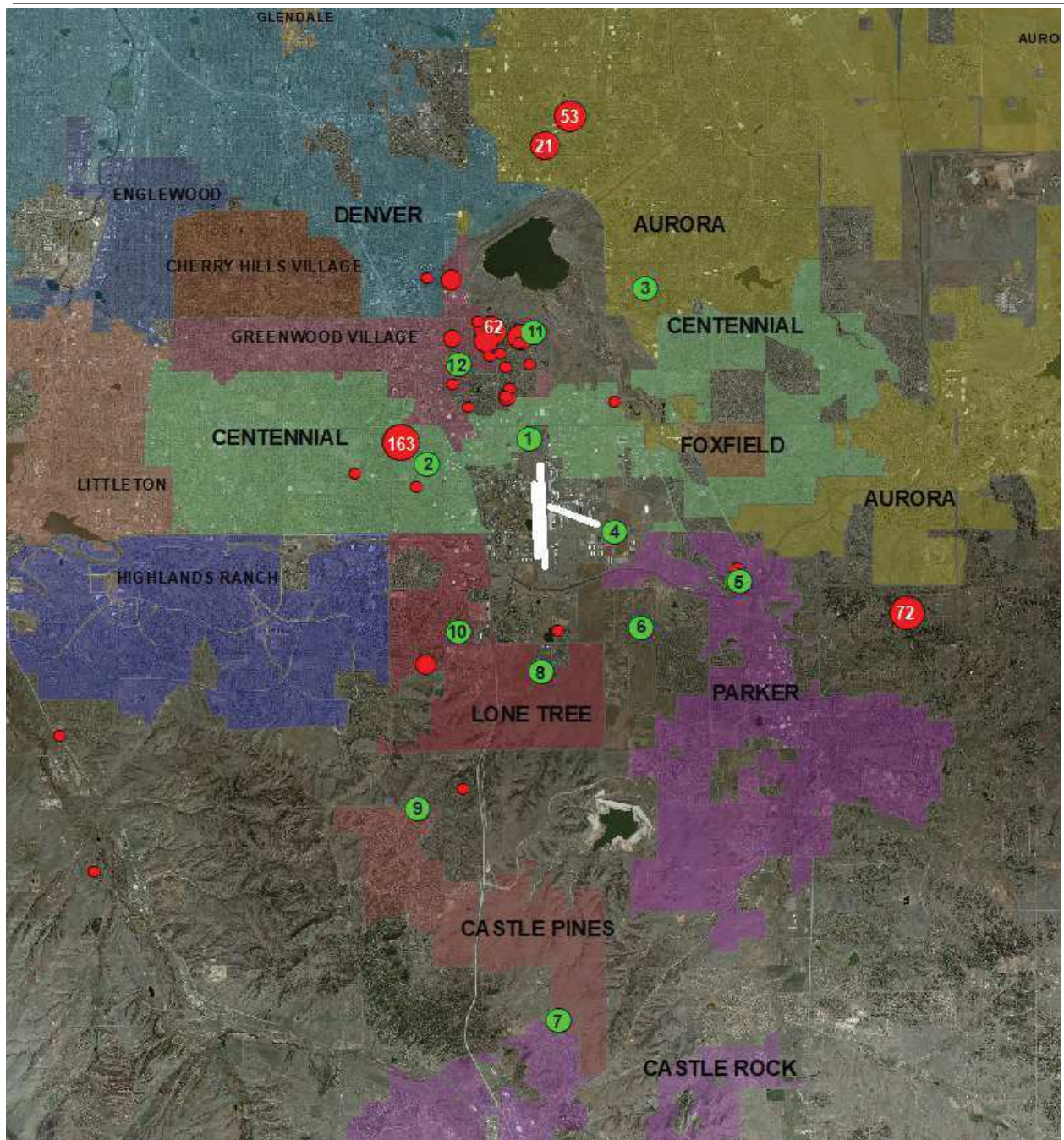
October 2019 Complaints by Aircraft Type



October 2019 Complaints by Operation Type



8 COMPLAINT MAP



October 2019 Complaints

*4 households outside map

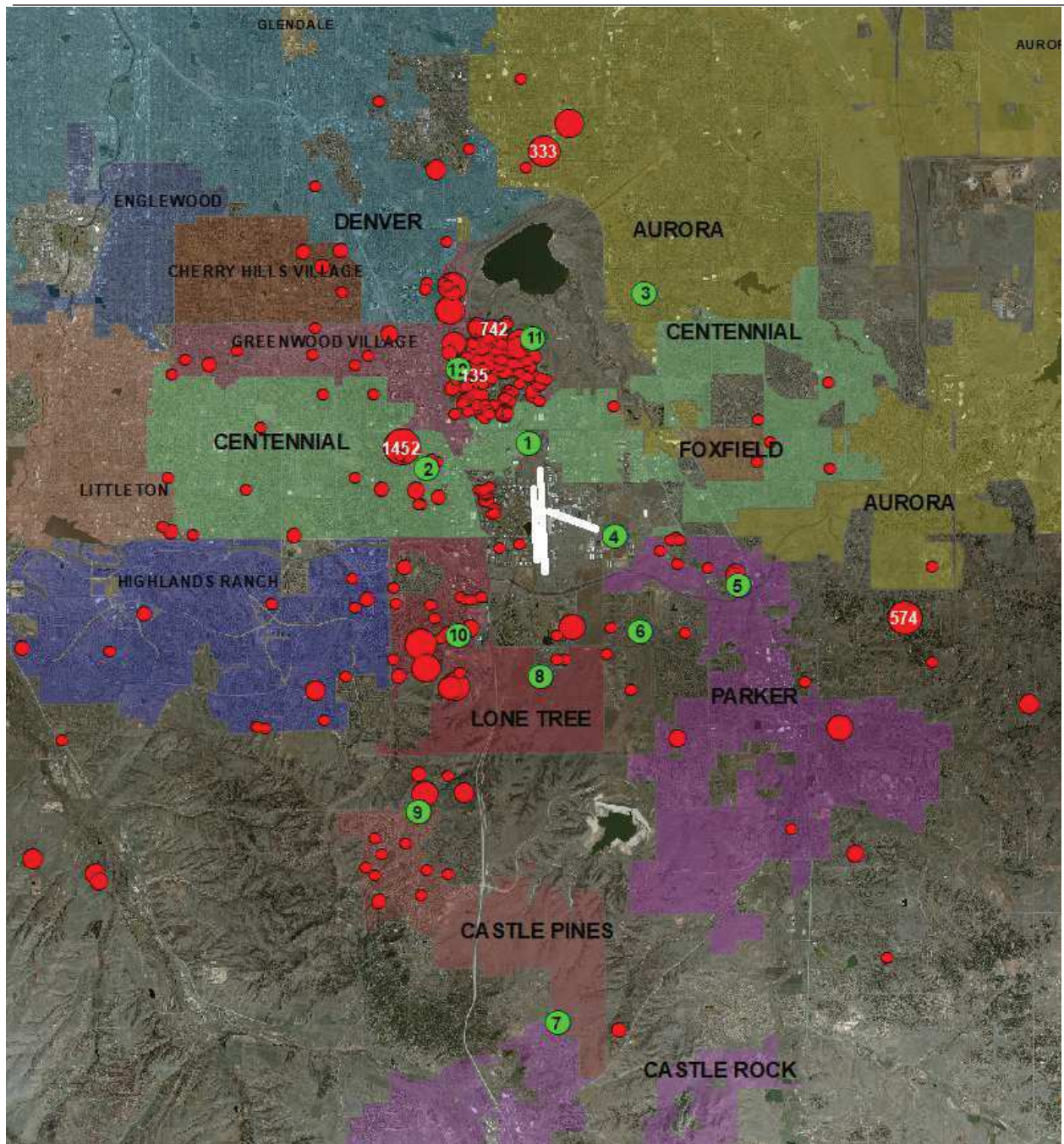
MAP LEGEND:

Green = Noise Monitor Locations

Red = Household Complaint Locations.

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

9 YTD COMPLAINT MAP



YTD 2019 Complaints

*18 households outside

MAP LEGEND:

Green = Noise Monitor Locations

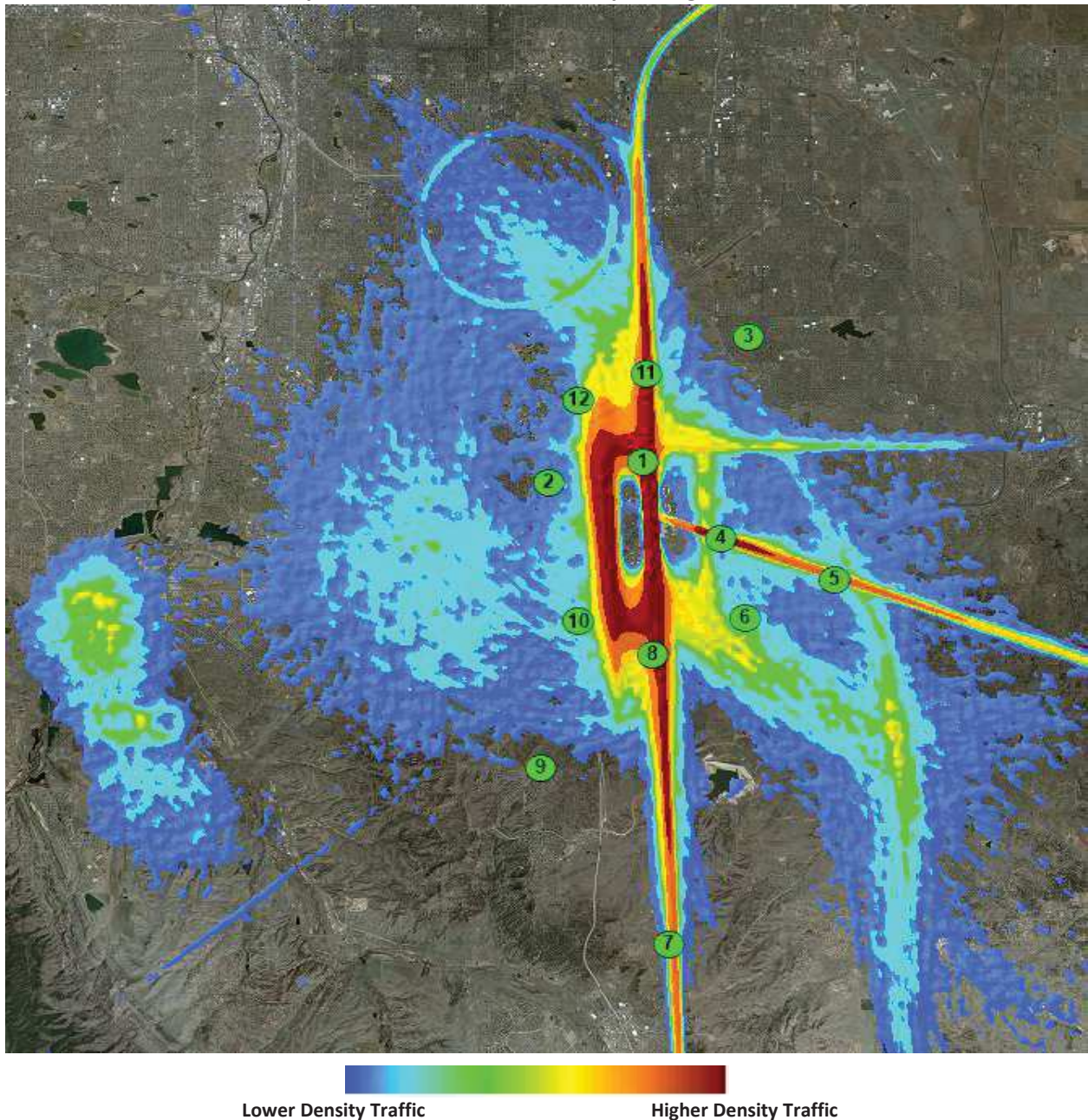
Red = Household Complaint Locations.

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

10 RADAR TRACK DENSITY MAP

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

September 2019 Centennial Airport Flight Tracks



11 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

www.centennialairport.com

Centennial Airport Community Noise Roundtable (CACNR)

PROPOSED BYLAWS

November 4, 2019

Article I – Purpose of Bylaws

The purpose of these by-laws is to establish guidelines for the internal structure and conduct of meetings of the Centennial Airport Community Noise Roundtable (hereinafter referred to as CACNR), and its interface with elected and/or appointed officials, and the general public. These bylaws are adopted in accordance with Article IV(1)(B) of the CACNR Memorandum of Understanding (MOU).

Article II – Statement of CACNR Purpose

- a. CACNR is a voluntary association of the Arapahoe County Public Airport Authority (ACPAA), neighboring communities, federal and state agencies and airport users created to monitor programs implemented as a result of the adoption of the ACPAA Noise Compatibility Program, including the Fly Quiet Program guidelines and the Noise Monitoring Program, and to address aircraft noise issues impacting the communities surrounding Centennial Airport. The participation and advice of these entities is essential to the success of CACNR.
- b. In an interactive and collaborative open forum, CACNR will adopt a Work Program which includes identifying the dimension of noise issues, discovering possible mitigation actions, finding opportunities for implementation, and evaluating the effectiveness of the mitigations.
- c. While CACNR's initial efforts in the development and implementation of a Work Program will be directed to noise issues associated with current aircraft operations, consideration of future noise issues also will be addressed, including interaction with noise roundtable activities at other airports.

Article III – Membership & Participation (also see Appendices I and II attached hereto)

- a. CACNR membership shall consist of Regular Members (voting members) and Advisory Members (non-voting members) as shown in Appendix I.
- b. New Members, both Regular and Advisory, may be added from time to time in accordance with Article III of the adopted MOU. Members, both Regular and Advisory, may withdraw from time to time in accordance with Article III of the adopted MOU.
1. Members' Representatives and/or Alternates are expected to attend all regular and special meetings. If a Regular Member's Representative or an Alternate does not attend at least 75% of such meetings annually in the period from April 1 through March 31, the Regular Member will be notified for potential appointment of a replacement(s). A vacancy in the position of any Member's Representative and/or Alternate shall be filled as soon as possible by that Member.
2. All Representatives and Alternates who serve on CACNR shall serve at the pleasure of their appointing Members. CACNR encourages and recommends Representative and Alternates be appointed to serve a minimum of two years.
3. An Alternate shall attend and have full authority to represent a Member at any CACNR meeting when the designated Representative is absent, including the authority to vote if the Member is a Regular Member.
4. On issues to be referred to the ACPAA Board, the ACPAA Representative's vote shall be nonbinding on ACPAA.
5. If the Representative and Alternate of any Member will be absent for a CACNR meeting, the Representative of such Member may designate a Substitute Representative for that meeting only, and shall notify the CACNR Chair of that designation, in writing.

Article IV - Officers and Terms of Office (also see Appendix II attached hereto)

- a. The Officers of CACNR shall consist of a Chair, Vice Chair, Secretary, and Treasurer, elected from the Regular Membership by a majority of the Regular Member Representatives present at the meeting when elections are held. All officers will continue to hold voting rights during their terms. Terms of office shall be one year. Elections shall be held at the March meeting of each year and officers will serve from April through March of the year following. There shall be no term limits.
- b. The officers of CACNR may resign from their positions at any time with written notification to CACNR. Upon resignation of the Chair, and until such time as new elections are held, the Vice Chair shall serve as the Chair. Upon resignation of the Vice Chair, Secretary, or Treasurer, the Chair shall appoint a new officer subject to approval of a majority of the Regular Member Representatives present at the meeting when any appointment is made.
- c. In the absence of the Chair at a meeting, the Vice Chair shall serve as the chair for that meeting. In the absence of the Secretary at a meeting, the Chair will appoint an acting Secretary for that meeting.

Article V – Conduct of Meetings

- a. All meetings of CACNR shall be open to the public.
- b. Meetings of CACNR shall be conducted in accordance with Robert's Rules of Order Newly Revised.
- c. A quorum of CACNR shall consist of at least fifty percent of the Regular Member Representatives, one of whom must be the Chair or Vice Chair. In the event the fifty percent is an even number, a quorum shall be fifty percent plus one. An official meeting cannot be held if a quorum is not present, as determined by the roll call. In the absence of a quorum, the Chair may decide to:
 - i. Delay the start of the official meeting as a means to achieve a quorum, if possible, or
 - ii. Ask for consensus from the Representatives/Alternates present to hear the information items only on the agenda.
- d. To assure advancement of the work of CACNR through active participation in the formation and implementation of CACNR's Work Program, all present at meetings will be expected to present new, supportive, or differing ideas or testimony in a cooperative, respectful and objective manner.

Article VI – Schedule and Location of CACNR Meetings

- a. Regular meetings of CACNR shall be held monthly at a time and location agreed upon by a majority of CACNR Regular Representatives and posted on the CACNR and the Centennial Airport websites. Meetings may be canceled and/or not scheduled in advance in the absence of sufficient business, at the discretion of the CACNR Chair.
- b. Special meetings shall be held at the request of no fewer than 25% of the Regular Representatives at a time and place to be determined by the Chair, but within two weeks of the request having been made.

Article VII – Notice of Meetings

Notice of regular CACNR meetings shall be given to all representatives at least 48 hours in advance of each meeting. Notice shall include an agenda which has been formalized by the Chair, and, whenever possible, all available supporting material. These items shall also be posted on the CACNR and Centennial Airport websites.

Article VIII – Record of Meetings and Availability of Materials

- a. The minutes of each meeting shall be recorded by the Secretary and made available for Members' Representatives as well as to the public. The minutes shall be reviewed, corrected as necessary and approved by CACNR at the next regular meeting. All records of CACNR meetings shall be posted on the CACNR and Centennial Airport websites after approval.
- b. Copies of all supporting meeting materials shall also be available for the public in printed form at CACNR meetings.
- c. The CACNR Work Program shall be reviewed biennially, to show progress and revise goals. Such review shall take place at the March meeting, with notice provided by the Secretary at the February meeting of each review year.

Article IX – Public Participation

Specific opportunities and time limits for public comment shall be designated on each meeting agenda. At the discretion of the Chair, opportunities for public comment may be offered during discussion of specific topics or during presentations.

Article X – Committees

- a. There shall be an Executive Committee, consisting of the Chair, Vice Chair, Secretary and Treasurer. The Executive Committee shall have the authority to act for CACNR between regular meetings. None of its acts shall conflict with CACNR policies, procedures, or actions previously taken. The Executive Committee, through the Chair, shall report at the next regularly scheduled meeting on any activities undertaken in accordance with this paragraph.
- b. The CACNR Chair, at his/her discretion, may appoint committees to work on specific issues that come before CACNR. Committee chairs shall be appointed by the CACNR Chair and shall be CACNR Representatives. Committee membership shall include appropriate or interested CACNR Representatives and may include members of the public with skills or knowledge relevant to a committee's assignment.
- c. Any recommendations from CACNR committees shall be considered final and official only upon approval of a majority of the Regular Member's Representatives.

Article XI – Ability to Enter into Contracts

- a. Under Colorado Revised Statutes 7-30-101, CACNR is a unincorporated non-profit association and therefore has the ability to enter into contracts.

Article XII - Amendments to the By-Laws

- a. These by-laws may be amended by a majority vote of all Regular Member Representatives, at any regularly scheduled meeting. Proposed amendments shall be drafted by at least 25% of the Regular Representatives and submitted in writing to the Secretary no later than one week before the meeting at which their adoption is to be considered. Written notification of the proposed amendments shall then be provided, via email, to all representatives at least 48 hours in advance of such meeting.

APPENDIX I
MEMBERS OF CACNR*

REGULAR MEMBERS (voting)

Arapahoe County (2)
Douglas County (2)
Arapahoe County Public Airport Authority (1)
Aurora, City of (1)
Castle Pines, City of (1)
Castle Rock, Town of (1)
Centennial, City of (1)
Cherry Hills Village, City of (1)
Foxfield, Town of (1)
Greenwood Village, City of (1)
Lone Tree, City of (1)
Parker, Town of (1)

ADVISORY MEMBERS (non-voting)

Aircraft Owners and Pilots Association (AOPA) (1)
Colorado Airport Business Association (CABA) (1)
Colorado Department of Transportation – Aeronautics
Division (CDOT) (1)
Federal Aviation Administration Centennial Control Tower (1)
Federal Aviation Administration Airport Dist. Office (FAA) (1)
Federal Aviation Administration Terminal Radar Approach
Control (TRACON) (1)

*The following were also invited to become initial members of CACNR, but subsequently decided not to be involved: Cherry Hills Village, and the City and County of Denver. Cherry Hills Village did become a member in 2014.

APPENDIX II
RESPONSIBILITIES OF CACNR MEMBERS, REPRESENTATIVES/ALTERNATES, AND OFFICERS

MEMBERS: Members in good standing of CACNR will

1. appoint their Representatives and Alternates, or their replacements, in accordance with these bylaws and in a timely fashion;
2. understand and support the objectives and activities of CACNR;
3. communicate with CACNR through their Representatives/Alternates;
4. maintain their financial obligations in accordance with the CACNR MOU.

REPRESENTATIVES/ALTERNATES: All Members' Representatives/Alternates to CACNR will

1. coordinate with each other to assure their Member's representation at all CACNR meetings;
2. if the Representative and Alternate of any Member will be absent for a CACNR meeting, the Representative of such Member may designate a Substitute Representative for that meeting only, and shall notify the CACNR Chair of that designation, in writing;
3. become familiar with the agenda and other meeting materials prior to each meeting;
4. assure confidentiality of designated information shared during CACNR meetings;
5. support the work of CACNR through active participation in the formation and implementation of CACNR's Work Program;
6. present new or differing ideas in a cooperative, respectful and objective manner;
7. assume responsibilities related to the CACNR Work Program as requested by the Chair.
8. If the Representative and Alternate of any Member will be absent for a CACNR meeting, the Representative of such Member may designate a Substitute Representative for that meeting only, and shall notify the CACNR Chair of that designation, in writing.

CHAIR: The Chair of CACNR will

1. chair all regular and special meetings of CACNR, and coordinate with the Vice Chair if unable to be present at any meeting;
2. assure business of CACNR is conducted in accordance with Robert's Rules of Order Newly Revised;
3. assure business of CACNR is conducted with decorum and with respect for differing points of view;
4. notify any Member whose Representative(s) or Alternate(s) have not attended at least 75% of CACNR meetings as established in Article III c. of the bylaws, documenting such absences and requesting replacement of that Representative or Alternate;
5. notify any Member whose Representative(s) or Alternate(s) have behaved in a manner detrimental to the advancement of CACNR's Work Program or has displayed disruptive or rude behaviors, documenting such behaviors, and requesting replacement of that Representative or Alternate;
6. represent CACNR to the general public and at outside functions as appropriate;
7. coordinate CACNR activities with ACPAA, the FAA, and any other appropriate agencies or organizations;
8. oversee implementation of the CACNR Work Program and develop plans to advance its various components;
9. serve as Chair of the CACNR Executive Committee;
10. as necessary, appoint committees to address the various matters relating to CACNR's Work Program;
11. upon the resignation of any officer, appoint a replacement to fill the unexpired term, subject to the approval of CACNR's Regular Representatives;

12. upon the absence of the Secretary at any meeting, appoint an Acting Secretary for that meeting;
13. authorize, with the Treasurer or other member of the CACNR Executive Committee, the expenditure of funds from the designated/restricted fund maintained for CACNR by ACPAA;
14. in coordination with the Treasurer, prepare a CACNR budget for approval of the Regular Representatives;
15. determine the time and place for any special meeting requested by at least 25% of the Regular Representatives;
16. prepare the agenda for all regular and special meetings, in coordination with ACPAA staff;
17. assume other responsibilities and tasks as directed by the Members' Representatives.

VICE CHAIR: The Vice Chair of CACNR will

1. perform the duties of the Chair in her/his absence;
2. serve on the CACNR Executive Committee;
3. work closely with the Chair to develop and implement plans to advance CACNR's Work Program;
4. assist the Chair in monitoring the implementation of the CACNR Work Program;
5. authorize, with either the Chair or the Treasurer, the expenditure of funds from the designated/restricted fund maintained for CACNR by ACPAA, in the absence of either the Chair or the Treasurer;
6. assume other responsibilities and tasks as requested by the Chair or as directed by the Members' Representatives.

SECRETARY: The Secretary of CACNR will

1. record and keep the minutes of each regular and special meeting of CACNR which, when approved, shall be posted on the CACNR and Centennial Airport websites;
2. record meeting attendance at each regular and special meeting of CACNR;
3. assure the records of all meetings are available to the Members' Representatives and Alternates and to the general public;
4. be the custodian of CACNR records, and may coordinate with ACPAA staff to assure maintenance of the CACNR archives;
5. assume responsibility for maintaining and updating the CACNR Work Program which, when approved, will be posted on the CACNR and Centennial Airport websites;
6. provide for notice of the biennial review and updating of the CACNR Work Program as required by these bylaws;
7. provide notice of the upcoming election, one month prior to that election, and invite nominations in accordance with Article IV.a.
8. receive any written, proposed amendments to the bylaws, confirm such amendments have been provided by at least 25% of the Regular Members' Representatives, and provide electronic notification of the proposed amendments to the CACNR Members' Representatives at least 48 hours in advance of the next meeting.
9. serve on the CACNR Executive Committee;
10. authorize, with either the Chair or the Treasurer, the expenditure of funds from the designated/restricted fund maintained for CACNR by ACPAA, in the absence of either the Chair or the Treasurer;
11. assume other responsibilities and tasks as requested by the Chair or as directed by the Members' Representatives.

TREASURER: The Treasurer of CACNR will

1. serve as the chief financial officer of CACNR;
2. coordinate with ACPAA staff in the establishment and management of the designated/restricted fund maintained for CACNR by ACPAA containing the funds from CACNR Members;
3. monitor and provide oversight for CACNR funds and expenses;
4. in coordination with the Chair, prepare a CACNR budget for approval of the Regular Members' Representatives;
5. provide financial reports to CACNR at every regularly scheduled meeting, and as otherwise requested;
6. authorize, with the Chair or other member of the CACNR Executive Committee, the expenditure of funds from the designated/restricted fund maintained for CACNR by ACPAA;
7. serve as a member of the CACNR Executive Committee;
8. assume other responsibilities and tasks as requested by the Chair or as directed by the Members' Representatives.

BOARD MEETING NOTES – NOVEMBER 14, 2019

Robert Doubek, ACPAA Treasurer

The Consent Agenda consisted of five routine items which all were approved.

The only item on the Business Agenda was the Vmax/Berland Private Hangar Development Plan which was postponed until the December 12,2019 Board Meeting.

The Centennial Airport Community Noise Roundtable Update was presented by Candace Moon.

The Board Meeting was adjourned and followed by the regular meeting of the Centennial Airport Foundation.

rjd/11,22,2019

Brad's Notes - N.O.I.S.E. Policy Summit, San Antonio
November 20, 2019

Sandy Lancaster, DFW Environmental Program Manager

- Gave a presentation on the public outreach on the Rehabilitation of Runway 17C/35C
 - Describes the project
 - Describes the timeline
 - What to expect
 - A 2 page flyer is attached
 - This is an excellent example of public outreach and perhaps should be used by DEN

James Allerdice and Katrina Jensen, ABCx2 (CACNR approved a Consulting Agreement with ABCx2)

- Has developed software that will correlate Noise Monitor Data with complaints using SWIM (System Wide Information Management) and Automatic Dependent Surveillance-Broadcast (ADS-B).
 - SWIM was designed to implement a set of information technology principles in the National Airspace System (NAS) and to provide users with relevant and understandable information.
 - ADS-B one of the foundations of NextGen, is a surveillance technology that helps pilots and air traffic controllers create a safer, more efficient National Airspace System (NAS).
- Software will create a dashboard that is customized to query what information is requested.

2018 REHABILITATION OF RUNWAY 17C/35C

DALLAS FORT WORTH INTERNATIONAL AIRPORT

Why is DFW considering this project?

Runway 17C/35C is 13,400 feet long and is DFW Airport's primary arrival runway, handling approximately 40% of DFW arrivals daily. The runway was built in 1984 and is in need of significant rehabilitation.

What is the project?

DFW intends to rehabilitate this runway, which entails:

- Replacement of the center third of the runway, about 6,000 feet;
- Asphalt resurfacing of the entire runway length;
- Rehabilitation of the parallel taxiway, Taxiway M (This work will be done after the runway reopens).

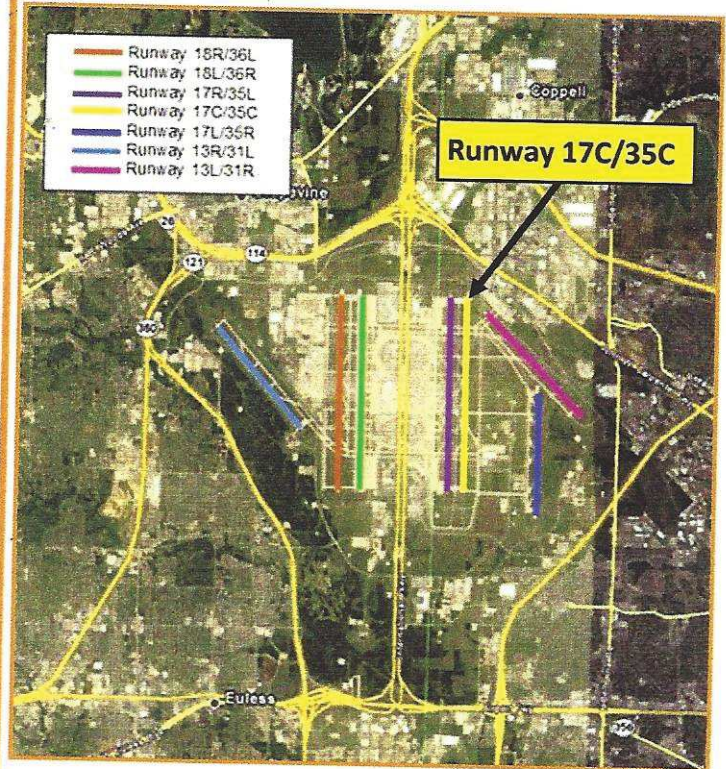
To avoid future runway closures and related impacts, DFW also plans to concurrently:

- Install Runway Status Light System;
- Build a portion of Northeast End Around Taxiway in runway environment.

When will the work be done?

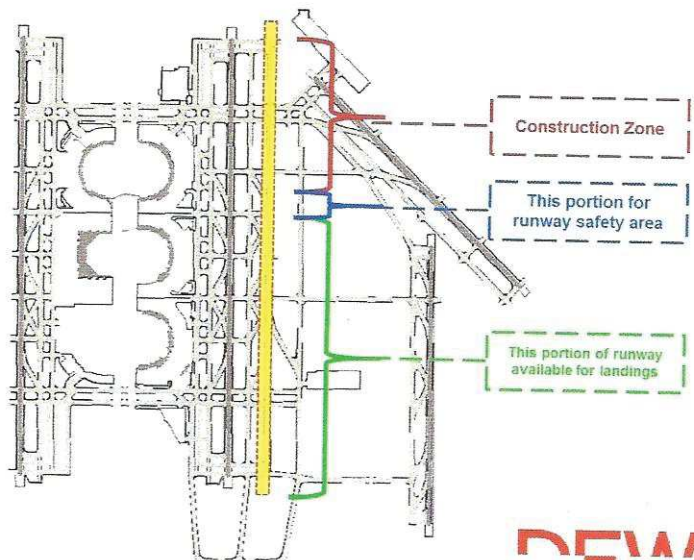
A project of this magnitude can take a year or more. Thus, to reduce impacts on the airfield and communities, DFW is phasing the project by doing a partial closure (72 days) and a shortened full closure (104 days). This will reduce the overall time of the runway closure. The following is the schedule for the phases of the runway project:

2018 ACTIONS	START	END
Preparation/Mobilization	Mar 26	May 23
Partial Closure of Runway	May 24	Early - Aug
Full Closure of Runway	Early - Aug	Nov 16
Runway Open/Finalization	Nov 16	Dec 8



How will the runway be used during the phases?

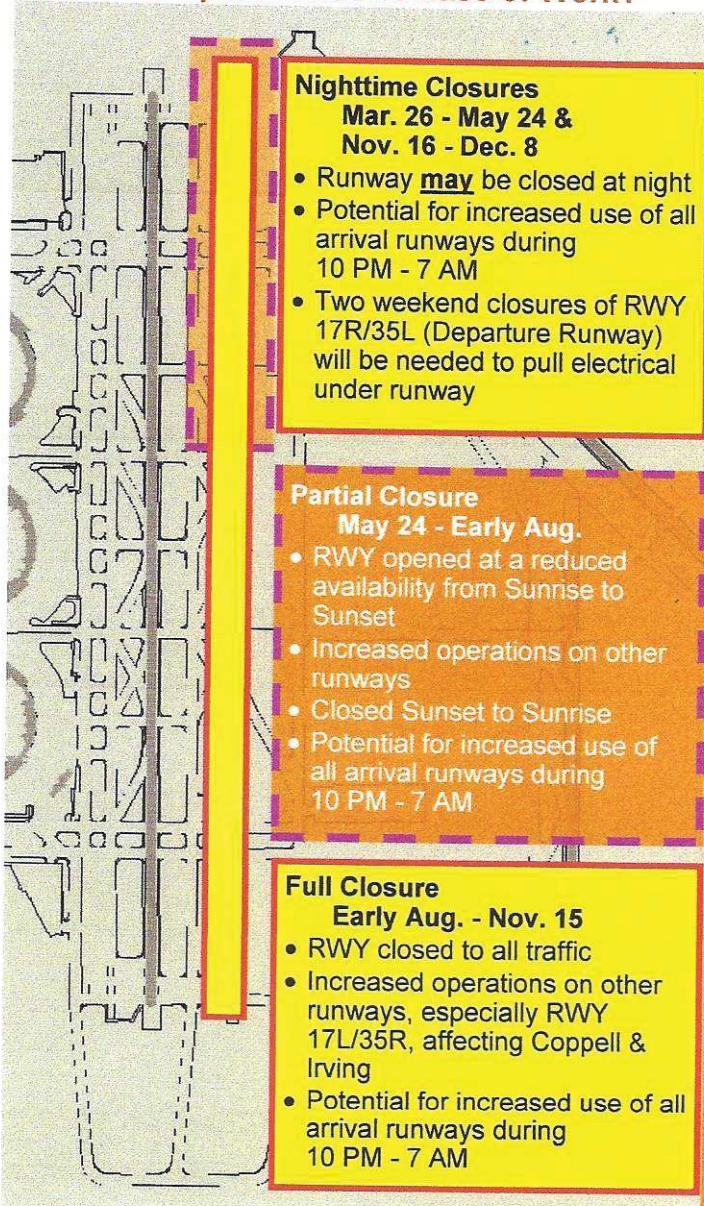
Partial Closure: During the partial closure, the northern portion of the runway will be under construction. The remainder of the runway will be available for arrivals at reduced capacity.



DFW

What to Expect During the Runway Project

What to Expect in Each Phase of Work?



How Will Noise Change During Closure?

Surrounding communities may experience an increase in noise within their neighborhoods from the effects of the change in operations during the runway closure.

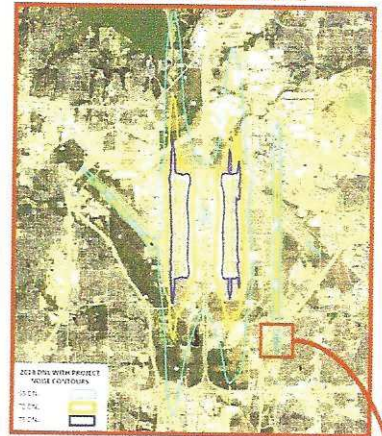
DFW conservatively modeled the temporary change in noise exposure with and without the closure, assuming a 9 month closure to determine if there are noise "impacts", as required by FAA. FAA defines an "impact" as a 1.5 Day/Night Level (DNL) increase in the 65 dB DNL noise contour over a noise sensitive land use.

The scheduled runway closure essentially will be reduced to 3.5 months, resulting in less noise; we anticipate minimal impacts (less than shown on the noise contour maps below).

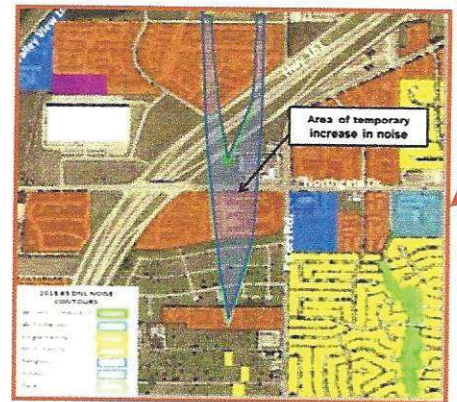
2018 WITHOUT CLOSURE



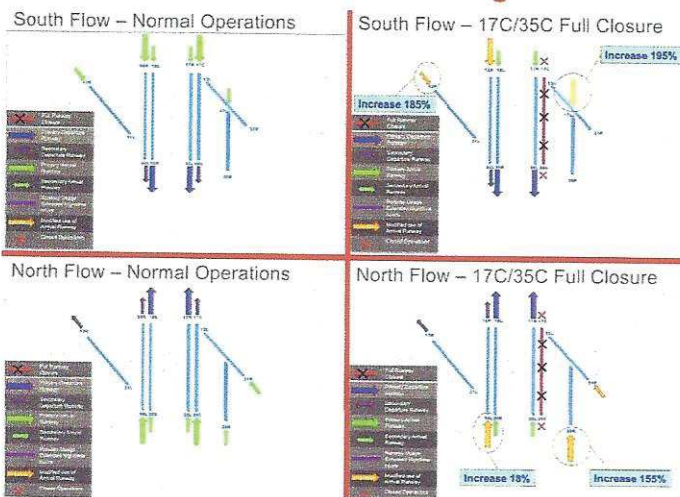
2018 WITH CLOSURE



The modeled 9-month closure indicates no noise "impacts" except a small area in Irving over apartments. DFW will reach out to these tenants to ensure they are aware of the closure.



Where Will Air Traffic Go During Closure?



* Estimated redistribution based upon historical data

Who to Call for More Information or to File a Complaint?

For Information:

Sandy Lancaster: 972-973-5573
Sam Tan: 972-973-5597
dfwairport.com/aircraftnoise

Noise Complaint:

972-973-3192
dfwnoise@dfwairport.com

DFW



2020 Symposium Program Topics!

Our 2020 Symposium planning is underway and already going strong! Our fantastic Technical Program Committee will be working to Define a Clear Vision of Tomorrow's Challenges. Take a look at the topics that will be explored and led by our impressive team:

Developing Elements of Success in Aviation Noise & Emissions Mitigation

Successful Practices Airport Employees can use to Improve Community Engagement

Noise and Emissions Legislation: Updates and Outcomes of the 2018 FAA Reauthorization Act

Assessing Health Effects of Aviation Noise & Emissions

Non-Acoustic Factors in Aircraft Noise Impacts

ATC Noise & Emissions Management in Practices

Aircraft Operator Strategies for Reducing Noise & Emissions Impacts

General Aviation Noise Initiatives

Climate Change and Aviation

Emerging Airspace Entrants

Aviation Emission Reduction Efforts

[Meet the Session Chairs & Planning Committee](#)

Join us in Sunny San Diego!

The 2020 Symposium will be held in the warm San Diego, California. We are excited to share the Mission Valley Marriott will be hosting us March 1-3 in their lovely hotel.

Take a peek at the city and reserve your hotel room [here and now!](#)



Sunny San Diego



Hosted by UC Davis Air Quality Research Center

CACNR/ACPAA 2020 MEETING SCHEDULES

With

CACNR REPRESENTATIVES TO 2020 MEETINGS OF THE ARAPAHOE COUNTY PUBLIC AIRPORT AUTHORITY

3:00 p.m., Wright Brothers Room, Centennial Airport, 7800 S. Peoria Street, Englewood, CO

<u>CACNR MEETING</u>	<u>ACPAA MEETING</u>	<u>CACNR REPRESENTATIVE</u>	<u>REPORT DUE DATE (to Dylan)</u>
<u>NONE</u>	<u>??</u>		
<u>February 05</u>	<u>February 13</u>		<u>February 07</u>
<u>March 04</u>	<u>March 12</u>		<u>March 6</u>
<u>April 01</u>	<u>April 09</u>		<u>April 03</u>
<u>May 06</u>	<u>May 14</u>		<u>May 08</u>
<u>June 03</u>	<u>June 18</u>		<u>June 11</u>
<u>July 01</u>	<u>July 09</u>		<u>July 03</u>
<u>August 05</u>	<u>August 13</u>		<u>August 07</u>
<u>September 02</u>	<u>September 10</u>		<u>September 04</u>
<u>October 07</u>	<u>October 08</u>		<u>No time to write</u>
<u>November 04</u>	<u>November 12</u>		<u>November 06</u>
<u>December 02</u>	<u>December 10</u>		<u>December 04</u>