

**SUBJECT: UPDATE – ROCKY MOUNTAIN METROPOLITAN AIRPORT
NOISE**

DATE: MARCH 2, 2021

**PRESENTED BY: EMILY HOGAN, ASSISTANT CITY MANAGER FOR
COMMUNICATIONS AND SPECIAL PROJECTS
MEGAN DAVIS, DEPUTY CITY MANAGER**

BACKGROUND:

In 2019, the City of Louisville partnered with the Town of Superior to address noise from Rocky Mountain Metropolitan Airport (RMMA), which is located in Broomfield. Following a number of complaints from residents about noise from RMMA, the City and Town hired aviation consultant ABCx2, which has specialized experience in working with communities and airports to address noise issues. Goals for the project included:

- Establish initial communication with airport stakeholders.
- Complete assessment of baseline conditions.
- Implement realistic noise abatement solutions in cooperation with airport stakeholders.
- Provide technical and ongoing support and advocate for City/Town priorities.

The following work was completed in Phase I of the project in 2019:

- Complete baseline assessment to understand current conditions and identify opportunities for improvement. ABCx2 looked at airport facilities, airfield layout, airspace and flight procedures, annual operations, traffic levels and fleet mix, existing noise abatement program, land uses and zoning and complaint data.
- Conduct community engagement, including an online survey on the impact of airport noise and potential solutions and an open house to share draft strategies and solicit feedback from residents.
- Meet with the airport and FAA traffic control tower personnel and conduct a flight training forum to engage industry stakeholders and encourage participation in the process.
- Assist in the formation of the Airport Noise Task Force to vet potential solutions and keep efforts moving forward with airport staff and tenants.
- Develop updated noise abatement procedures with the Airport Noise Task Force to lessen the impact of aircraft activity on adjacent neighborhoods.
- Develop recommended strategies intended to reduce noise impacts on the communities.

Phase II of the project kicked off in 2020. The scope of work for this phase included:

- Prioritize noise abatement strategies and advocate for implementation.

- Continue to participate on RMMA Noise Task Force and advocate for City/Town priorities.
- Expand and strengthen relationships with RMMA industry/tenants in an effort to promote compliance with noise mitigation measures.
- Encourage industry awareness/training with a focus on aircraft noise impacts and implementation of policies, practices and procedures in alignment with City/Town priorities.
- Encourage community awareness of airport impacts and provide information on policies, practices and procedures to the public.
- Advocate for City/Town priorities through Community Roundtable and help facilitate submittal of recommended practices/procedures to FAA for approval.

The following work was completed in 2020:

- City/Town staff and the consultants held a prioritization workshop with Council/Board liaisons to identify priorities for the City/Town and strategies to pursue together in 2020 while staying within budget (see attachments).
- The consultants developed a detailed work plan based on the strategies that were prioritized by the City/Town at the workshop. The work plan includes objectives, action items, metrics, budget and estimated timeline.
- City/Town staff met with RMMA to discuss the strategies outlined in the work plan that require cooperation from the airport.
- Council liaisons met with RMMA along with City staff and the consultants to share concerns regarding airport operations and impacts.
- Staff continued to update the City's webpage for the airport (<https://www.louisvilleco.gov/residents/rocky-mountain-metropolitan-airport>) in an effort to share information with the community. The City also partnered with ESRI to create a new storymap (<https://storymaps.arcgis.com/stories/113bd2a2cc64408e937f5d712799457b>) to share information on airport operations and policies/procedures and illustrate community concerns.
- City staff worked with RMMA to convene meetings with Jefferson County, Boulder County, Broomfield, Westminster, Arvada, and Superior to begin the process to establish a Community Noise Roundtable (CNR) as recommended by FAA. The City and RMMA drafted bylaws and the intergovernmental agreement (IGA) to establish a CNR. All parties signed off on the founding documents, appointed elected members, and the CNR has begun to meet.
- The City provided letters to the Jefferson County Commissioners regarding noise impacts and shared letters and emails from our community (see attachments).
- The consultants developed education/outreach materials for the airport to use with pilots, flight schools, airport tenants, air traffic control and the general public and organized a meeting with City/Town and airport staff to discuss implementation (see attachments).

The consultants provided a final project wrap-up report that is included with staff's attachments.

COMMUNITY NOISE ROUNDTABLE:

In 2019, the FAA recommended the establishment of a Community Noise Roundtable as a formal mechanism to advance noise mitigation recommendations that require FAA approval. After City staff initiated numerous conversations with RMMA and Jefferson County staff, and sent letters to the Jefferson County Commissioners regarding the establishment of a Roundtable, Jefferson County convened staff from Jefferson County, Boulder County, Broomfield, Westminster, Arvada, Superior and Louisville (all communities located within the Class D airspace of RMMA) to discuss concerns regarding airport operations and impacts. The group supported the establishment of a formal CNR for RMMA and entered into an IGA in November, 2020.

Per the IGA, the purpose of the RMMA Community Noise Roundtable is as follows:

- Identify the dimension of noise issues, discover possible mitigation actions, find opportunities for implementation of mitigation measures and evaluate the effectiveness of mitigation measures.
- Share up-to-date data to identify potential voluntary noise reduction opportunities.
- Identify potential operational changes to the airport that would require federal approval.
- Build consensus around recommendations for noise reduction measures, whether voluntary or mandatory (understanding mandatory measures require FAA approval)
- Review available data regarding noise reduction measures.
- Review airport development plans, operational changes and surrounding community development plans for associated noise impacts.

The Roundtable held its kickoff meeting on January 11. The agenda consisted of introductions from member communities and representatives, a presentation from RMMA on the background of the airport and formation of the Roundtable and discussion of meeting logistics (Board elections, scheduling of public comment, facilitator options, notice of meetings, etc.).

The agenda for the February 8 meeting consisted of election of Chair and Vice-Chair, public comment, facilitator interviews and selection, confirmation of regular meeting dates and format and an update from the RMMA Director.

Superior representative Mark Lacis was elected Chair and Louisville representative Jeff Lipton was elected Vice-Chair. It was decided that 30 minutes of public comment would be offered at each meeting with 3 minutes allotted to each speaker. There were 10 individuals who shared public comment.

Three consultants were interviewed for the role of meeting facilitator, including Primacy Strategy Group, P-2 Solutions, and CDR Associates. Primacy was awarded the contract, to be funded by member dues. Primacy has extensive experience working with airport and surrounding communities on noise-related issues and helped establish the Centennial Airport Noise Roundtable. There was also discussion about potentially hiring a technical consultant like ABCx2 to assist with data collection, flight modeling, etc.

The RMMA Director's update focused on airport operations and data provided by the FAA's Air Traffic Activity Data System (ATADS). There was discussion among the Roundtable members of the need for more detailed traffic data.

Several topics were identified for future meetings, as well. These include: a briefing from the FAA on the Roundtable process and next steps, review of air traffic heat map produced by Louisville, an update from the Colorado Aviation Business Association, review of comprehensive plans for neighboring communities and involving the flight schools Roundtable discussions.

2021 CONSULTANT SERVICES:

The City does not have funds budgeted for an airport noise consultant services in 2021 and the contract with ABCx2 is complete. If there is interest in continuing this work outside of the Roundtable, staff can prepare a Request for Proposals for an Airport Impacts Consultant. Support could be provided on an as needed basis for the following services:

1. Aviation support – tasks include but are not limited to: review/analyze flight procedures, airspace guidelines/restrictions, FAA regulations. City has already completed baseline assessment that analyzed airport facilities, traffic patterns, current noise abatement program and land use/zoning of airport.
2. Data/technical support – tasks include but are not limited to: data collection for current flight traffic, review/analyze traffic patterns, produce mapping, flight path modeling.
3. Legal support – tasks include but are not limited to: review land use of airport and potential impacts/compatibility from future development, explore potential legal action.
4. Environmental support – tasks include but are not limited to: data collection for environmental impacts (including noise) from current flight traffic, review/analysis of impacts, recommendations for mitigation, explore potential regulatory action.
5. Advocacy support – tasks include but are not limited to: review/report on Federal/State legislation, explore opportunities to partner with delegates on proposed legislation, track/assist in providing public comment/testimony in Federal/State/Local decision-making processes, advocate for State funding that would support airports that have developed and enforced noise abatement programs.

Additional funds would need to be included in a future budget amendment if there is interest in hiring a consultant for 2021. The Town of Superior is planning to hire a consultant on an as needed basis. Should this be the desired action, an RFP would be issued to ensure that there are no conflicts of interest with the firm selected to provide assistance to the City.

FISCAL IMPACT:

A future budget amendment will include the member fees due for the Roundtable (\$3,600 annually). Funds have not been budgeted for consultant support in 2021. If there is interest in hiring a consultant, additional funds would need to be included in a future budget amendment.

Additionally, the Roundtable may identify longer-term planning for needs in gaps and resources around airport impacts. For instance, the Roundtable may identify future funding needs to monitor noise and operations in airspace surround the airport, model potential flight paths over less populated areas, continued consultant support, etc. Funding for such items is not included in the City's budget. If additional resources are needed, staff will bring forward a budget amendment.

PROGRAM/SUB-PROGRAM IMPACT:

One of the objectives of the Public Information & Involvement Sub-Program is giving residents the opportunity to get involved and influence decision-making. This item from the 2020 Council Work Plan incorporates resident input and develops solutions to address concerns regarding airport noise. It also incorporates a collaborative approach with a regional partner to address an issue of mutual interest, which is a Critical Success Factor from the City's Strategic Plan.

ATTACHMENT(S):

1. Prioritized Strategy Matrix
2. Letters to Jefferson County Commissioners
3. Engagement/Outreach Materials
4. ABCx2 Project Wrap-up Report
5. Primacy Proposal/Biography
6. Air Traffic Heat Map

STRATEGIC PLAN IMPACT:

☐		Financial Stewardship & Asset Management	☐		Reliable Core Services
☐		Vibrant Economic Climate	☐		Quality Programs & Amenities

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☒	 Engaged Community	☐	 Healthy Workforce
☐	 Supportive Technology	☐	 Collaborative Regional Partner

#	Priority	Focus Area	Strategy	Work Completed	Next Steps	Level of Impact*	Probability of Implementation	Cost	Timeline	Approval Process	Lead
1	High	Flight operations, procedures & practices	Continued implementation of updated Noise Abatement Procedures to support voluntary compliance. This includes strategies to route aircraft away from residential areas; increasing altitude when near residential areas; discouraging nighttime operations; encouraging early turns; encouraging noise friendly departure route to practice area).	In late 2019, RMMA released updated noise abatement procedures for voluntary measures. This effort was led by ABCx2 on behalf of City/Town through the airport's Noise Task Force.	Conduct education and outreach with airport tenants and air traffic control personnel. Consider measures for compliance and impact on noise. May include flight tracking system.	High Increase awareness of community concerns and updated Noise Abatement Procedures	High Preliminary implementation complete	\$ (education & outreach campaign included in Phase II scope with ABCx2) \$-\$ (costs associated with performance metrics and monitoring systems) \$\$ (route design from ABCx2 - need to consider topography, aircraft performance, airspace, etc.)	Short to Medium-term	ABCx2 will work with RMMA to develop a pilot outreach/engagement program. Based on available budget, materials such as web content, social media, brochures, etc., may need to be developed either by ABCx2 as a separate task or by the Airport.	Consultant & City/Town staff (education & outreach)
2	High	Community outreach & engagement	Establish community roundtable	Jefferson County is leading effort to establish roundtable and contacting member agencies to set up initial meeting to discuss purpose, goals, bylaws, etc.	Establish guiding documents, select representatives, hire facilitator, identify potential solutions and submit recommendations to FAA for approval. ABCx2 could assist with coordinating with Jefferson County on development to ensure that goals of City/Town will be incorporated.	High A roundtable will enable regional collaboration among the airport, Jefferson and Boulder Counties and the surrounding cities and towns impacted both positively and negatively by the airport. This will also provide a forum for understanding community impacts and concerns, as well as opportunities to encourage compatibility.	High	\$ (community roundtable costs included in Phase II budget)	Medium to long-term	Coordination with Jefferson County and other participating organizations and jurisdictions.	City/Town staff
3	High	Industry outreach & engagement	Continue to work with airport's Noise Task Force to provide technical & subject matter expertise and advocate for City/Town priorities	Consultants worked with Noise Task Force to develop initial strategies.	Continue to work with Noise Task Force to promote City/Town priorities as outlined in the priority matrix for recommended strategies.	High The Noise Task Force is made up of local industry experts with the influence and ability to encourage employees and customers to support the RMMA noise program. Support from this group has proven highly valuable in moving forward with operational recommendations.	High	\$ (work with Noise Task Force included in Phase II scope with ABCx2)	Short to medium-term	RMMA agrees to continue hosting the Noise Task Force.	Consultant

#	Priority	Focus Area	Strategy	Work Completed	Next Steps	Level of Impact*	Probability of Implementation	Cost	Timeline	Approval Process	Lead
4	High	Flight operations, procedures & practices	Consider mandatory requirements as outlined in updated Noise Abatement Procedures through Community Roundtable. This includes strategies to route aircraft away from residential areas; increasing aircraft altitudes.	Strategies included in updated noise abatement procedures (see #1).	Propose required rerouting of flight paths; increasing of aircraft altitudes; noise friendly departure route to practice area If implemented, measure impact on noise.	High Increase pilot awareness of noise impacts associated with overflight of residential areas and support mandatory rerouting from these areas.	Medium - rerouting of flight paths, increasing altitudes Low - noise friendly departure route to practice area Preliminary implementation completed	\$ (community roundtable costs included in Phase II budget) \$-\$ (costs associated with performance metrics and monitoring systems) \$\$ (route design from ABCx2 - need to consider topography, aircraft performance, airspace, etc.)	Medium to long-term	Vet proposed changes through Community Roundtable & submit recommendations to FAA for approval.	Consultant & City/Town staff (Community Roundtable)
5	High	Flight operations, procedures & practices	Collect data on operations, noise, complaints and resolutions and work with airport to address ongoing issues. This includes researching noise monitoring/flight tracking systems.	N/A	Work with airport to share additional details on operations, noise, complaints and resolutions to establish transparency and build trust with the community. Gain better understanding of monitoring/tracking systems (i.e. cost, baseline data, benchmarking).	High Additional data/transparency would create accountability, potentially address ongoing issues and help identify increases or decreases in noise over time.	Medium - depends on airport response	\$\$-\$\$\$ (not currently budgeted for)	Short to long-term	RMMA would have to agree to share data and consider monitoring/tracking system	Consultant & City/Town staff
6	High	Land Use Planning, Zoning & Development	Review/comment on planned airport development, including Master Plan Updates to support development that is compatible with neighboring communities. Ensure transparency and community engagement is included in processes.	City/Town has been added to list of neighboring communities to be notified of future Master Plan updates by airport. Beyond a Master Plan process, Jefferson County Planning Department only notifies jurisdictions within 2 miles of project. Superior is within RMMA influence areas and should be contacted regarding any updates to their Master Plan.	Explore expansion of Jefferson County Planning Department notifications to include City/Town. Also plan to respond to future Master Plan updates.	High Informed land-use planning can reduce/avoid future non-compatible development by either limiting development in areas highly exposed to aircraft noise/overflights or by requiring notification to prospective home-buyers of the potential impacts.	Depends on RMMA response to comments	\$ (City/Town staff resources)	Short to medium-term	Jefferson County/RMMA	City/Town staff

#	Priority	Focus Area	Strategy	Work Completed	Next Steps	Level of Impact*	Probability of Implementation	Cost	Timeline	Approval Process	Lead
7	Medium	Industry outreach & engagement	Include updated Noise Abatement Procedures in flight training curriculum for new students/license certifications	In late 2019, RMMA released updated Noise Abatement Procedures (see #1).	The consultants will work with the airport's Noise Task Force to develop content and incorporate the noise abatement procedures in the flight training curriculum.	Medium Training of both flight instructors and pilots will reinforce the importance of flying in a community-friendly manner and ensure awareness of specific measures in place at RMMA.	High	\$ (work with Noise Task Force included in Phase II scope with ABCx2)	Short-term	RMMA agrees to promote noise abatement procedures and expanded education & outreach.	See #1
8	Medium	Industry outreach & engagement	Include updated Noise Abatement Procedures in flight instructor briefings	In late 2019, RMMA released updated Noise Abatement Procedures (see #1).	The consultants will work with the airport's Noise Task Force to incorporate the noise abatement procedures in flight instructor briefings. ABCx2 suggests increasing frequency of briefings & expanding content.	Medium Training of both flight instructors and pilots will reinforce the importance of flying in a community-friendly manner and ensure awareness of specific measures in place at RMMA.	High	\$ (work with Noise Task Force included in Phase II scope with ABCx2)	Short-term	RMMA agrees to promote noise abatement procedures and expanded education & outreach.	See #1
9	Medium	Industry outreach & engagement	Include noise abatement in air traffic controller briefings (not formal instruction or training, which would require FAA approval)	In late 2019, RMMA released updated Noise Abatement Procedures (see #1).	The consultants will work with the airport's Noise Task Force to incorporate the noise abatement procedures in traffic controller briefings.	Medium Air traffic controller (ATC) briefings help ensure ATC is aware of the noise program measures and support pilot requests consistent with the update Noise Abatement Procedures.	Medium	\$ (work with Noise Task Force included in Phase II scope with ABCx2)	Short-term	RMMA agrees to promote noise abatement procedures and expanded education & outreach.	Consultant
10	Medium	Community outreach & engagement	Expand City web content about airport, noise and contact information for City, Town and airport	Staff has created webpages that include contact information for the airport and noise complaints, the updated noise abatement procedures, etc.	Staff has partnered with ESRI to create a story map that identifies the airport layout, approach corridors, traffic areas, complaints, flight patterns, etc. ABCx2 to review map & provide data before it's published.	Medium Community outreach can expand transparency and help the public better understand airport operations, flight patterns and noise. This is also helpful for prospective home-buyers when choosing where to live, enabling informed decision-making and consideration of their sensitivity to aircraft	High	N/A (ESRI is the City's current GIS provider and completing this work free of charge)	Short-term	N/A	City/Town staff

#	Priority	Focus Area	Strategy	Work Completed	Next Steps	Level of Impact*	Probability of Implementation	Cost	Timeline	Approval Process	Lead
11	Medium	Community outreach & engagement	Expand airport's website to include community section for addressing noise issues and provide noise program information	Airport has updated website to include community section for addressing noise issues and noise program information	Ongoing	Medium Similar to Measure #7 above. Information provided by the airport further expands transparency and demonstrates the Airport and Jefferson County's commitment to protecting residents' quality of life.	High	N/A	N/A	N/A	See #1
12	Medium	Regional Collaboration	Establish planning meetings with City/Town, Boulder County, Jefferson County and airport to discuss development plans, community concerns, etc. This could be accomplished through Community Roundtable.	Jefferson County is leading effort to establish roundtable and contacting member agencies to set up initial meeting to discuss purpose, goals, bylaws, etc.	See #2	Medium Informed land-use planning can reduce/avoid future non-compatible development by either limiting development in areas highly exposed to aircraft noise/overflights or by requiring notification to prospective home-buyers of the potential impacts.	Depends on all parties	\$ (community roundtable costs included in Phase II budget)	Medium to long-term	Discuss development plans, community concerns, etc. through Community Roundtable.	City/Town staff
13	Medium	Regional Collaboration	Collaborate with Congressional delegation	City/Town staff has engaged with the Congressional delegation to discuss airport noise issues and provide feedback for potential legislative action.	Continue to work with Congressional delegation and monitor Federal/State legislation.	Low The airport, FAA and Jefferson County are all operating within federal requirements and the noise exposure levels associated with RMMA are below the federal threshold for "significant impact". Combining that with the local residential development around RMMA, it seems federal and state intervention will be less effective than a local, collaborative approach.	High	\$ (City/Town staff resources)	Ongoing	Council/Board approval of legislative positions.	City/Town staff

#	Priority	Focus Area	Strategy	Work Completed	Next Steps	Level of Impact*	Probability of Implementation	Cost	Timeline	Approval Process	Lead
14	Low	Industry outreach & engagement	Expand information on airport website to clarify noise-sensitive areas and share details on updated Noise Abatement Procedures	Airport has updated website to include community section for addressing noise issues and noise program information, including map of typical traffic pattern operations and updated Noise Abatement Procedures	See #12	Low Informing pilots of the updated Noise Abatement Procedures and encouraging participation.	High	\$ (education & outreach campaign included in Phase II scope with ABCx2)	Short-term	RMMA agrees to promote noise abatement procedures and expanded education & outreach.	See #1
15	Low	Land Use Planning, Zoning & Development	Consider existing/future noise exposure & flight patterns when addressing land use planning	The City currently does not do this for all development but can consider it if City Council identifies it as a priority. The Town currently includes Airport Influence Areas, and sends development referrals to RMMA as appropriate. RMMA referrals include recommendations on disclosures to buyers/tenants in areas where airport noise impacts are anticipated.	N/A	Low (City/Town primarily planned or built out) Informed land-use planning can reduce/avoid future non-compatible development by either limiting development in areas highly exposed to aircraft noise/overflights or by requiring notification to prospective home-buyers of the potential impacts.	Depends on direction from Council/Board	N/A	N/A	Land use code update by City Council/Town Board.	City/Town staff
16	Low	Land Use Planning, Zoning & Development	Enact zoning/code requirements for non-compatible development in Airport Influence Area and/or Airport Critical Zones	The City is not located within the Airport Influence Area and/or Airport Critical Zones. As a result, Louisville does not plan to pursue this. Could restate language provided for #19 here, but I don't think Town has any interest in restricting development based on proximity to the airport. As part of review process, staff works to mitigate all potential noise impacts, most frequently noise related to proximity to HWY 36. We could require construction-related improvements to better insulate building interiors, but we don't have the same tools for air noise that we do for roadways, where sound walls can also abate outdoor noise	N/A	Low (City/Town primarily planned or built out) Informed land-use planning can reduce/avoid future non-compatible development by either limiting development in areas highly exposed to aircraft noise/overflights or by requiring notification to prospective home-buyers of the potential impacts.	Depends on direction from Council/Board	N/A	N/A	Land use code update by City Council/Town Board.	City/Town staff

#	Priority	Focus Area	Strategy	Work Completed	Next Steps	Level of Impact*	Probability of Implementation	Cost	Timeline	Approval Process	Lead
17	Low	Land Use Planning, Zoning & Development	Coordinate local zoning/development cases with airport to understand potential impacts	Airport recently requested review of GDP for Redtail Ridge in Louisville even though it is outside of the airport's influence zone. Airport provided comments and requested an avigation agreement with the developers, and notified staff that it does not need to review any other plans unless Redtail Ridge changes significantly. City staff does not plan to forward any other referrals to the airport. As related above, Town referrals are sent to RMMA when airport influence areas or known avigation	N/A	Medium Informed land-use planning can reduce/avoid future non-compatible development by either limiting development in areas highly exposed to aircraft noise/overflights or by requiring notification to prospective home-buyers of the potential impacts.	Depends on all parties	N/A	N/A	N/A	City/Town staff
18	Low	Land Use Planning, Zoning & Development	Update website to include Airport Influence Area and flight paths/patterns	Staff has created webpages that include contact information for the airport and noise complaints, the updated noise abatement procedures, etc.	See #11	Medium Adding information including the Airport Influence Area and flight paths/patterns inform residents and prospective residents of where to typical expect aircraft overflights to occur. Residents should expect high levels of aircraft activity within the Airport Influence Area and where flight paths/patterns are indicated thus helping manage expectations and encouraging transparency.	High	Short-term	N/A	Jefferson County/RMMA	City/Town staff
19	Low	Industry outreach & engagement	Share updated brochures for updated Noise Abatement Procedures	In late 2019, RMMA released updated Noise Abatement Procedures (see #1).	Complete	Medium This outreach will help inform both local pilots and visiting pilots of the RMMA noise program. It is also another reminder of the importance of flying in a community-friendly manner and how pilots can reduce their impacts.	High	\$ (education & outreach campaign included in Phase II scope with ABCx2)	Short-term	RMMA agrees to promote noise abatement procedures and expanded education & outreach.	See #1

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20	Low	Industry outreach & engagement	Install on-airport signage for updated Noise Abatement Procedures	Two signs installed on-airport.	Complete	Low Increases awareness of the importance of flying in a community-friendly way and serves as another reminder as pilots enter the flightline.	High	N/A	N/A	N/A	See #1

*Level of impact could include reduction in noise exposure, reduction in overflights and/or increased distance between aircraft and homes



March 2, 2020

Dear Jefferson County Commissioners:

The City of Louisville would like to extend our appreciation for Jefferson County's attention to the noise impacts associated with the Rocky Mountain Metropolitan Airport (RMMA). We understand that the BOCC has been discussing this issue with RMMA, and has supported the voluntary noise mitigation measures implemented at the airport over the past few months. The RMMA staff have proved to be a willing partner with the City and other neighboring communities in discussing this ongoing issue.

The City has conveyed to RMMA a strong interest in the establishment of a roundtable to address noise impacts on adjacent communities. Roundtables are a FAA recognized mechanism for airports to solicit feedback on community impacts and to collaboratively identify solutions to address these impacts. The roundtable model has been successful here in Colorado, at the Centennial Airport in Arapahoe County.

We understand that the establishment of a roundtable will take some time. The neighboring jurisdictions and RMMA/Jefferson County will need to come to agreement on the structure, scope, bylaws, operating practices, etc. Given that airport noise continues to impact our community, despite the voluntary measures that have been put in place, and that Jefferson County and the RMMA Advisory Board continue conversations about expanding airport operations, the sooner this forum can be established the better. We are requesting the Jefferson County move quickly to establish a roundtable for RMMA.

Please contact us for further discussion on this matter. My email is astolzmann@louisvilleco.gov and the staff contact for this project is Megan Davis, Deputy City Manager mdavis@louisvilleco.gov.

We look forward to working with you on this important matter.

Sincerely,

Ashley Stolzmann, Mayor



Jefferson County Commissioners
100 Jefferson County Parkway, Suite 5550
Golden, CO 80419

May 26, 2020

Dear Commissioners Dahlkemper, Szabo and Tighe:

Over the past two years the City of Louisville has received a growing number of complaints from residents impacted by the growth in operations at the Rocky Mountain Metropolitan Airport (RMMA). Most of the complaints center on the frequent, low-flying small aircraft that circle the City or fly over the community to reach the “practice area” located just south of Longmont. In many cases, these aircraft are conducting take-offs and landing exercises, meaning they are circling above the City over and over again. Since most of the airport traffic is directed north into Boulder County communities, we wanted to share with you some of these emails so that you can gain a better understanding of the impacts your facility is generating.

Attached is a sampling of the emails that we receive on a regular basis. These represent only one month of comments, which is a small sampling of the comments and complaints we have received on this matter over the past few years. While these residents do not reside within Jefferson County, the complaints are the direct result of your operations.

The City has partnered with the Town of Superior to attempt to address these issues, through the engagement of a professional aviation consulting team (ABCx2) and community, airport and pilot engagement in partnership with RMMA staff. We appreciate RMMA’s willingness to consider efforts to address the disproportionate impacts to our communities.

One of the top recommendations of our consultant and the FAA is to convene an airport noise roundtable, which will help us collaboratively address noise issues through mutually agreeable approaches. Through the Roundtable we believe we can identify noise mitigation strategies that will reduce the community impacts associated with RMMA operations. Centennial Airport has had a Community Noise Roundtable for ten years, and has successfully implemented strategies to reduce noise impacts on neighboring communities.

We understand it’s a busy time for counties and municipalities, however the operations at RMMA have not slowed down, and therefore we would like to convene the roundtable as quickly as possible. The City would be glad to draft and circulate bylaws and any other documents necessary to move the effort forward if you prefer.

Please let us know how you’d like to proceed. In the meantime, we will continue to send you copies of all emails we receive so that you can see firsthand the impacts that our residents experience from the RMMA operations.

Regards,

Ashley Stolzmann, Mayor
City of Louisville

Megan Davis

From: Kristopher Karnauskas <kristopher.karnauskas@colorado.edu>
Sent: Thursday, May 14, 2020 10:56 AM
To: Ashley Stolzmann
Cc: City Council
Subject: A citizen's perspective on RMMA

Dear Mayor Stolzmann,

I hope you and your loved ones are doing well. I cannot imagine the challenges you must be facing as the mayor of our city right now. If I can be of service to you in any way, please don't hesitate to call on me.

Although this is far from the most pressing matter at the moment, I'd like to write with some perspective about the airplane noise out of RMMA that plagues the peaceful skies above our great city.

My letter is in the form of the attached PDF document. This was necessary because I include several images that illustrate the matter at hand.

Sincerely,
Kris Karnauskas
1022 W. Alder

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Kristopher B. Karnauskas, Ph.D.
Associate Professor, Department of Atmospheric & Oceanic Sciences
Fellow, Cooperative Institute for Research in Environmental Sciences
Editor, Journal of Geophysical Research-Oceans
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kristopher.karnauskas@colorado.edu | www.colorado.edu/oclab | @OceansClimateCU

Megan Davis

From: Sheree Burcar <SBURCAR@COMCAST.NET>
Sent: Friday, May 22, 2020 4:50 PM
To: City Council; townboard@superiorcolorado.gov; board@rockcreekhoa.com
Subject: Aircraft noise and pollution from RMMA
Attachments: May-17-2020-fltmap.pdf; ATT00001.txt

Sorry, the first email did not have the attachment

Dear Mayor Stolzmann, Louisville City Council, Mayor Folsom, Superior Trustees, HOA Board,

I live in the Continental View Estates neighborhood in northwestern Louisville. As my neighborhood along with most of Louisville and Superior is in the direct flight path of aircraft flying between RMMA and the training ground in the north, I experience near constant air traffic and noise.

Despite Louisville and Superior having hired consultants to mitigate the aircraft noise and pollution, the situation has escalated. Last Sunday, May 17, was the worst day I have experienced in terms of the number of flights and noise over my home. The air traffic was non-stop all day. The aircraft noise was constant and loud, even when inside.

Attached are flight maps generated by DIA's DEN Noise Office for May 17, showing all air traffic from all airports for a 24 hour period. RMMA, Boulder and Erie airports are easily identifiable. The amount of air traffic over our communities is unacceptable. Some traffic is generated from Boulder and Erie airports, but the vast majority is from RMMA.

Beside the high amount of air traffic is the issue of aircraft flying at low altitudes in violation of the 1000 ft regulation. This is a safety concern and also compounds the noise issue. I have reported a number of violations to the FAA in the past, unfortunately to no avail.

The situation has become intolerable. The quality of life in our communities is being destroyed by the constant air traffic generated from RMMA.

Please address these issues with the consultants and RMMA.

Sincerely,
Sheree Burcar
1881 W Choke Cherry Drive
Louisville, CO
80027

Megan Davis

From: Donald Stewart <donaldo111@aol.com>
Sent: Wednesday, May 13, 2020 2:22 PM
To: Megan Davis
Subject: Hi Megan... Dennis Maloney referred me to you. Donald Stewart.

Hello Megan,

Hi my name is Donald Stewart.

My neighbor and friend is Dennis Maloney and he suggested that I should contact you. I'd love to have a quick dialogue with you about current/recent progress with Rmma on noise mitigation.

I've been Living in Louisville for 17 years in Boulder County for 27 years.

I'm interested generally in how your conversations/interactions with Rmma go....

Rmma and Jeffco.... are they sincerely making an effort to reduce noise or are they just mostly politically posturing???

Where are we now, and will we ever make any real progress towards lowering the aircraft noise over Louisville???

To me, the droning constant small plane flight school traffic seems to be far and away to be the biggest nuisance and noise source.

I believe Dennis said you were involved with a working group that monitors the airport for some type of at least voluntary compliance with noise mediation issues?

How are meetings and progress proceeding?

It would be fantastic if we could talk for 10 minutes so I can get a better idea of where we stand currently in with the future might portend...

I went to all the public meetings and I've read most of the documentation including the RMMA ten-year proposed plan and have tried to keep up to date, so I am at least somewhat knowledgeable about what has transpired and what the issues are

Megan, thank you so much for your time and your help with this issue. Could you let me know you received this, And advise me if there's any possibility of arranging a time convenient for you to talk for 10 minutes.

Please feel free to text me at my number below as that may be the easiest way to communicate for now and set up a time to talk.

Thank you again,

Donald Stewart
303-669-3120

Sent by dgs from my iPhone

Megan Davis

From: Megan Davis
Sent: Tuesday, May 19, 2020 1:24 PM
To: Emily Hogan
Subject: RE: airport noise

Thanks Emily!

Megan Davis
Deputy City Manager, City of Louisville
303-335-4539
mdavis@louisvilleco.gov

[Join our eNotification list](#) to customize emails with news and events that matter to you.

From: Emily Hogan
Sent: Tuesday, May 19, 2020 12:48 PM
To: Megan Davis <mdavis@louisvilleco.gov>
Subject: FW: airport noise

FYI – thanks!!

Emily Hogan
Assistant City Manager for Communications & Special Projects
City of Louisville
303-335-4528
ehogan@louisvilleco.gov

[Join our eNotification list](#) to customize emails with news and events that matter to you.

From: Ben Miller [<mailto:bmiller@flyrmma.com>]
Sent: Tuesday, May 19, 2020 11:13 AM
To: kalle.anderson@gmail.com
Cc: Emily Hogan <ekropf@louisvilleco.gov>
Subject: RE: airport noise

Emily Hogan passed along your questions regarding the airport. I'll do my best to answer them below.

- To the airport's knowledge, there has been no change in local traffic routing for a significant period of time. The typical IFR (most jets and turboprops) and VFR (most smaller aircraft) departure and arrival procedures are detailed on pages 17-23 of the City of Louisville's consultant report on RMMA, and can be viewed here: <https://www.louisvilleco.gov/home/showdocument?id=23856>
- The Denver Metroplex procedures were implemented by the FAA this spring, but have much more significant impacts for flights operating into and out of Denver International. Perhaps this is what your neighbor was referring to. http://www.metroplexenvironmental.com/denver_metroplex/denver_introduction.html
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into the national airspace system. Due to the layout of the Class B (Denver) and Class D (RMMA) airspace, terrain, and urban development, many VFR pilots choose to depart towards the north as well. This allows them the shortest opportunity to exit controlled airspace and operate over less populated areas.

I hope this helps. As a reminder, the airport does not direct nor control aircraft operations. The City of Louisville's page on the airport consultant's work is an excellent summary of the issues and can be viewed here: <https://www.louisvilleco.gov/residents/rocky-mountain-metropolitan-airport>

BEN MILLER, AICP

Airport Development Coordinator
Rocky Mountain Metropolitan Airport
11755 Airport Way | Broomfield, CO 80021
Office: 303-271-4854
bmiller@flyRMMA.com | www.flyRMMA.com



From: Emily Hogan <ekropf@louisvilleco.gov>

Sent: Monday, May 18, 2020 12:12 PM

To: Ben Miller <bmiller@flyrmma.com>

Subject: FW: airport noise

Hi Ben. I have a resident with a few questions on airport operations. Can you respond to the following questions (or respond to the resident directly – see email below):

- Why would a 10% increase in operations result in many times more Louisville overflights in 2019?
- Was there a specific change in traffic routing policy that occurred within the last year that may have resulted in additional Louisville overflights?

Thank you!!

Emily Hogan
Assistant City Manager for Communications & Special Projects
City of Louisville
303-335-4528
ehogan@louisvilleco.gov

[Join our eNotification list](#) to customize emails with news and events that matter to you.

From: Kalle Anderson [<mailto:kalle.anderson@gmail.com>]

Sent: Monday, May 18, 2020 12:00 PM

To: Emily Hogan <ekropf@louisvilleco.gov>

Subject: Re: airport noise

Ok thanks. Yes I saw that, but it doesn't explain why a 10% increase in total operations has resulted in many times more Louisville overflights in 2019 (and 3x more complaints by household in Louisville).

My wife read something a neighbor posted on nextdoor or similar last year attributing the sudden uptick to a specific change in traffic routing policy that occurred within the last year, but I have been unable to find additional information to either corroborate or reject that hypothesis.

Thanks,
Kalle

Megan Davis

From: Kristopher Karnauskas <kristopher.karnauskas@colorado.edu>
Sent: Saturday, May 23, 2020 7:07 PM
To: Jeff Lipton; William G. Falardeau; Town Board; board@rockcreekhoa.com; City Council; Boulder County Board of Commissioners; tammy.story.senate@state.co.us; Matt Gray; Kim Redd; jill.grano@mail.house.gov; Ashley Stolzmann
Cc: Heather Balser
Subject: Re: Rocky Mountain Flight School N4345G Training from 10:23PM until 11:23PM
Attachments: all_thru_3pm_withmap.png

Good evening folks,

I have developed the capacity to analyze flight data going beyond just screenshots - don't ask how. In my day job, I'm a professor in a data-intensive field, and I happen to be doing a little data science for us on this Saturday... and I made it work.

Please see the attached image, which shows all of the RMMA-to-RMMA flights today (May 23) between 5:30 AM and 3:00 PM. My house in Louisville happens to be marked with a star. The incredibly uneven pillaging of the airspace over Louisville on the way to/from the northern training grounds is abundantly clear. The stunning destruction of peace over Superior is also clear. I can make maps like this, including animated ones, zoomed-in ones, and other tweaks, which I believe will be very compelling data and information for use in the attempt to resolve this problem.

Please forgive me, but I would also submit that this is more compelling than anything I have seen from the consultants. I have seen their materials and was present at their presentation to the Louisville and Superior assemblies. They are not up to date with technology or data, and we all know "you can't manage what you don't measure."

Kris

--

Kristopher B. Karnauskas, Ph.D.
Associate Professor, Department of Atmospheric & Oceanic Sciences
Fellow, Cooperative Institute for Research in Environmental Sciences
Editor, Journal of Geophysical Research-Oceans
University of Colorado Boulder | 311 UCB | SEEC N228A
4001 Discovery Drive, Boulder, CO 80309-0311 | 303-735-4395
kristopher.karnauskas@colorado.edu | www.colorado.edu/oclab | @OceansClimateCU

From: Jeff Lipton <lipton@louisvilleco.gov>
Sent: Thursday, May 21, 2020 9:11 PM
To: William G. Falardeau <bill.falardeau@att.net>; Town Board <townboard@superiorcolorado.gov>; board@rockcreekhoa.com <board@rockcreekhoa.com>; City Council <Council@louisvilleco.gov>; Boulder County Board of Commissioners <commissioners@bouldercounty.org>; tammy.story.senate@state.co.us <tammy.story.senate@state.co.us>; Matt Gray <matt@matthewgray.us>; Kim Redd <kim.redd@mail.house.gov>; jill.grano@mail.house.gov <jill.grano@mail.house.gov>

Cc: Kristopher Karnauskas <kristopher.karnauskas@colorado.edu>; Heather Balser <Heatherb@Louisvilleco.gov>

Subject: Re: Rocky Mountain Flight School N4345G Training from 10:23PM until 11:23PM

Bill,

Thanks for your message on the late evening aircraft noise.

I also received a message Tuesday from a Louisville resident about a twin engine jet doing loops Tuesday night. Below is the screen shot.

The same or a similar jet did **numerous** loops around our communities last Saturday and Sunday during the day practicing what I would assume to be touch and go's or some form of maintenance testing. It was pretty constant, flying fairly low, and very loud. There was also a constant drone of single engine and dual engine props and jets flying over the populated areas of our community.

It may be no coincidence that Mountain Aviation has a Dassault Falcon 2000 EX in their fleet.

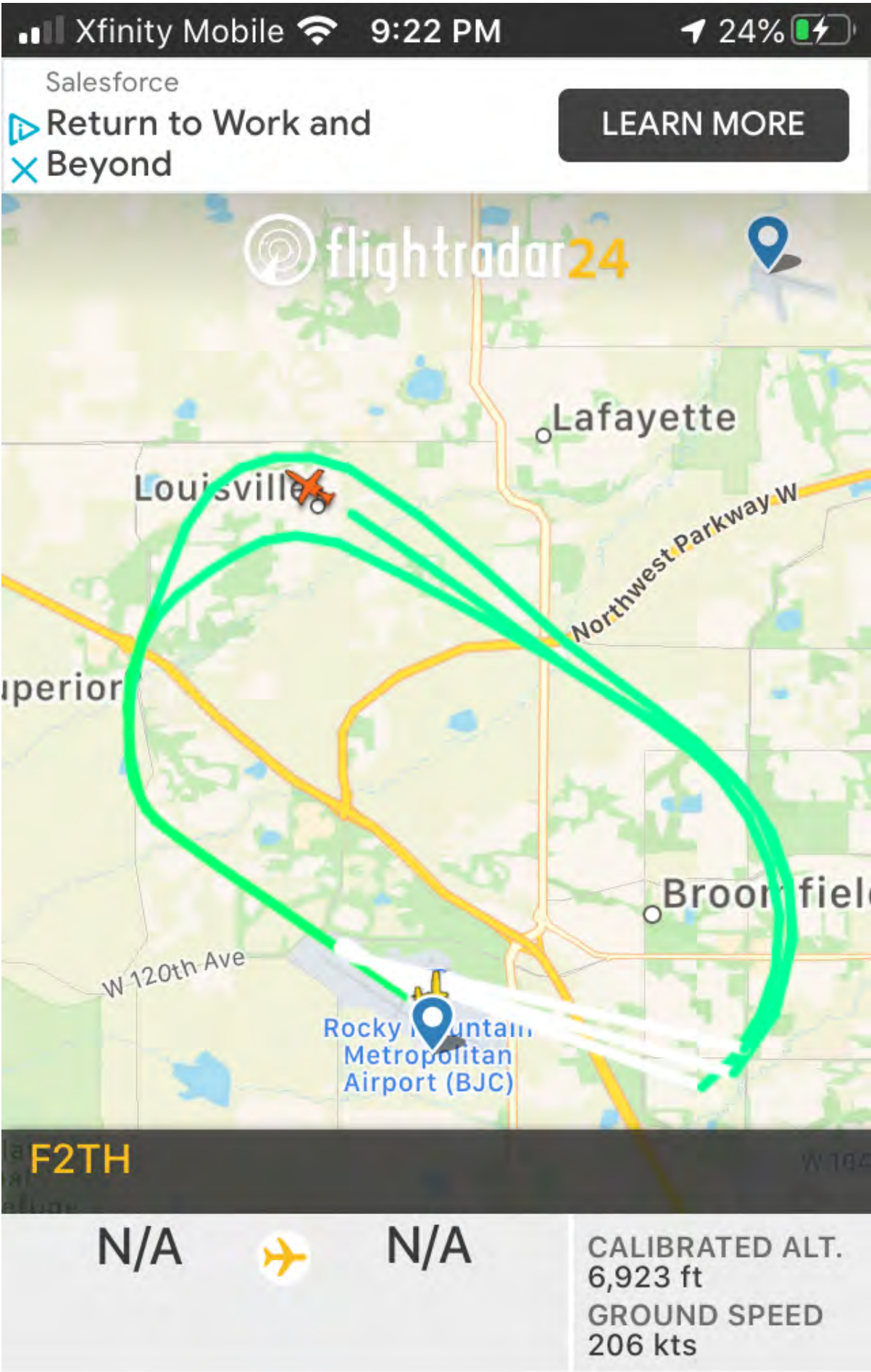
There is no question that the aircraft noise issue is at a tipping point for our communities. We need to create the proposed Airport Roundtable **now** in order to work with the airport, flight schools, and other stakeholders.

I recognize that the Corona virus pandemic has delayed forming the Roundtable and getting discussions moving. But, meanwhile this has become an intolerable situation for us with no end in sight.

I would at least request that our respective City staff contact the airport management to discuss the issues with Mountain Aviation so that their charter company and flight schools are made aware of the noise reduction guidelines and work with them to voluntarily comply or to mitigate their noise impacts to the extent possible.

Thank you.

Jeff Lipton
Louisville City Council
Ward II



Jeff Lipton
Louisville City Council
Ward II

From: William G. Falardeau <bill.falardeau@att.net>

Sent: Thursday, May 21, 2020 4:36 PM

To: Town Board; board@rockcreekhoa.com; City Council; Boulder County Board of Commissioners; tammy.story.senate@state.co.us; Matt Gray; Kim Redd; jill.grano@mail.house.gov

Subject: Rocky Mountain Flight School N4345G Training from 10:23PM until 11:23PM

Dear Mayor Folsom, Superior Trustees, HOA Board, Mayor Stolzmann, Louisville City Council, Boulder County Commissioners, Senator Story, Representative Gray, Representative Neguse,

Last night (5/20/20) at 10:23PM, we heard the first of many passes over our home by a plane from RMMA, registered to G&M Aircraft, which is Rocky Mountain Flight School. Greg Boom, who was in a cover article recently for Daily Camera, is the owner of that flight school. He also owns Mountain Aviation.

This plane's touch and goes lasted until 11:22PM - a whole hour - just as we were trying to get to sleep. The CDC recommends rest during this stay safer at home order. How can we rest with a plane needlessly circling our home for an hour at that time of the night?

This goes against the "voluntary noise abatement policy" rolled out by RMMA last year. That policy states that flight schools at RMMA are requested not to fly after 10:00 PM.

Please address this issue with the consultants and the flight schools. N4345G was the only plane in the sky at that hour. The flight loops did not have to be over any Rock Creek homes. Please encourage tighter loops and respect for residents' sleep during this pandemic.

Below are screen shots from Flight Aware and FlightRadar24 for Registration Number N4345G on 5/20/20:

FLIGHT TIMES

Takeoff

10:23PM MDT

Scheduled 10:23PM MDT

Landing

11:22PM MDT

Scheduled 11:22PM MDT

AIRCRAFT INFORMATION

Tail Number [N4345G](#) - [Registration](#)

Owner G & M AIRCRAFT INC

Aircraft Type Piper Cherokee (piston-single) ([P28A](#))

[Photos](#)

FLIGHT DATA

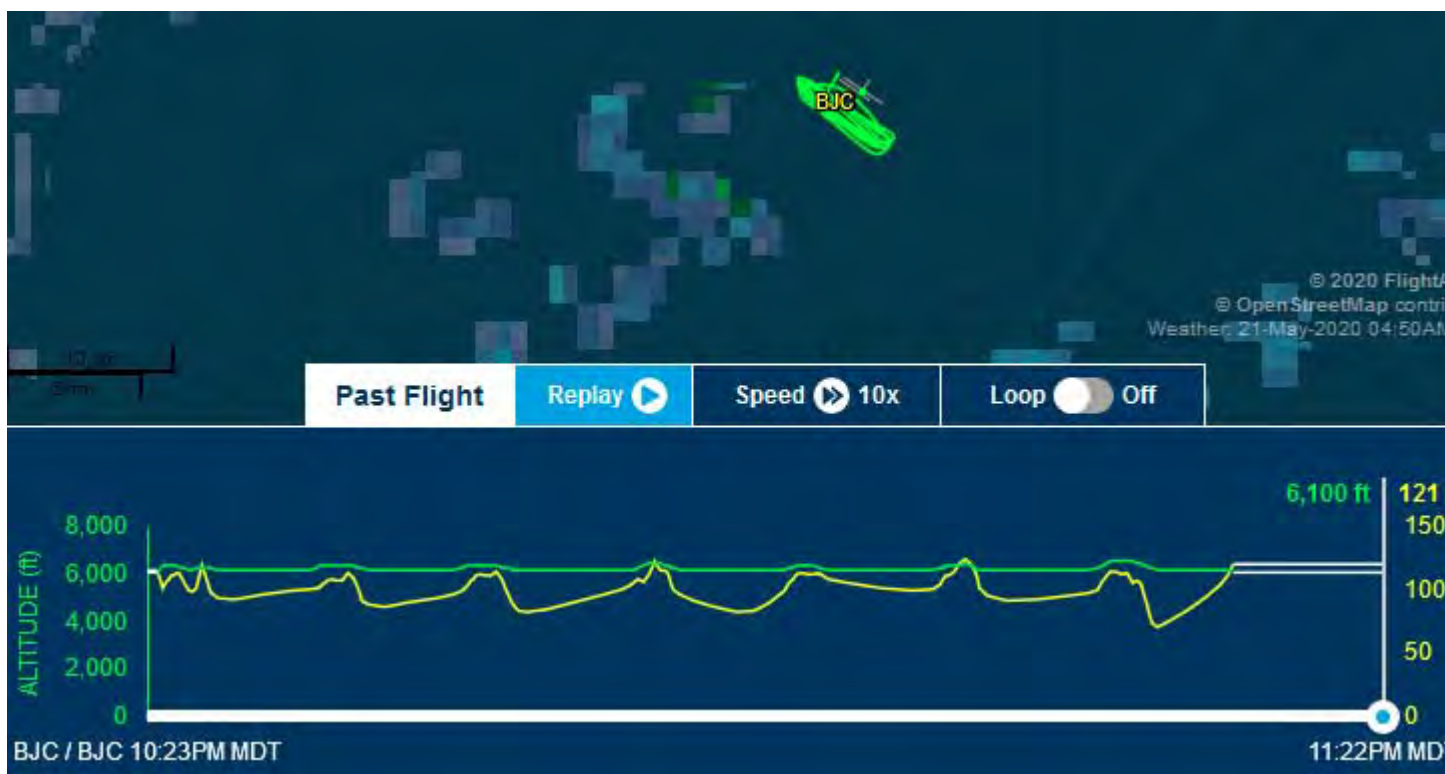


Speed —

Altitude —

Distance Actual: 60 mi

Route —



N4345G

Private owner

© HA-KLS

BJC

DENVER

MDT (UTC -06:00)

BJC

DENVER

MDT (UTC -06:00)

ACTUAL

10:22 PM

ESTIMATED

* 10:44 PM

2 km, 00:35 ago

2 km

AIRCRAFT TYPE (P28A)

Piper PA-28-161

REGISTRATION

N4345G

COUNTRY OF REG.

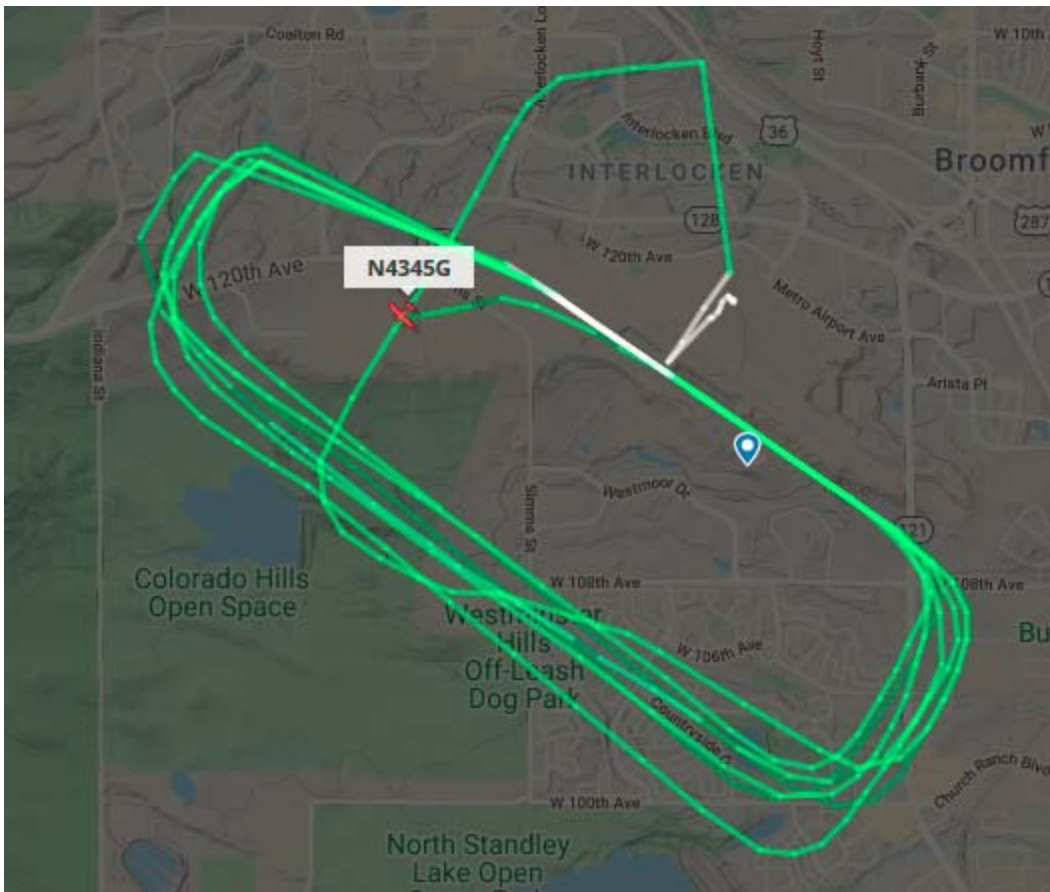
SERIAL NUMBER (MSN)

AGE

Recent N4345G flights

CALIBRATED ALTITUDE

VERTICAL SPEED



Thank you for your attention to this matter.

Sincerely,
Karen and Bill Falardeau
Rock Creek
Superior, CO 80027

From: justin deister <justin@uppercasedesign.us>
Sent: Wednesday, May 20, 2020 9:01 AM
To: Citizen Inquiries <info@louisvilleco.gov>
Subject: increase in aircraft/noise

City Council,

Thanks for your time and all that you do.

Once again there is an increase in:

- 1) The number of aircraft over Louisville
- 2) Their low altitude even on cloudless days
- 3) Their noise, some planes simply too loud.
When you think about it, the pilots have noise protection.
Do we need to start wearing headphones?

I ask what good was the "Study" done last year?

If "recommendations" from the Study were made, how did we make them?

Did we merely plead and beg pilots and the airport to make changes?

How did that work out? I can tell you. It didn't do a thing.

It appears the "Study" has been a complete waste of money and time.

I submit that "recommendations" become rules.

Rules become enforced.

Breaking rules incur penalties, similar to how drivers get fines.

We don't beg drivers to drive within limits. We establish limits and enforce them.

I consider this is a quality of life issue here in Boulder County and in the fine City of Louisville.

With increasing aircraft noise and low flights, we may not be "one of the best cities in America to live in".

What are we going to do about this?

Thanks,

Justin Deister

30 year resident

From: Kristopher Karnauskas <kristopher.karnauskas@colorado.edu>

Sent: Saturday, May 23, 2020 10:23 PM

To: Ashley Stolzmann

Subject: Plot of all RMMA flights today

Dear Mayor Stolzmann,

Per our recent conversation, I would like to share a plot that I made, which you are free to use or share as you see fit.

This map shows all RMMA-to-RMMA flights from today (Saturday, May 23, 2020) between 5:30 AM and 3:00 PM. For reference, the red target indicates the location of Louisville City Hall, situated in the heart of downtown Louisville.

This is clear evidence of the unjust burden that Louisville bears of the daily operations of flight schools hosted at RMMA, particularly as they transit to the training grounds north of us. The constant noise from these low-flying propeller planes is unbearable.

Thanks for your attention to this matter.

Sincerely,

Kris Karnauskas

1022 W. Alder, Louisville, CO

--

Kristopher B. Karnauskas, Ph.D.

Associate Professor, Department of Atmospheric & Oceanic Sciences

Fellow, Cooperative Institute for Research in Environmental Sciences

Editor, Journal of Geophysical Research-Oceans

University of Colorado Boulder | 311 UCB | SEEC N228A

4001 Discovery Drive, Boulder, CO 80309-0311 | 303-735-4395

kristopher.karnauskas@colorado.edu | www.colorado.edu/oclab | @OceansClimateCU

From: Kalle Anderson [mailto:kalle.anderson@gmail.com]
Sent: Monday, May 18, 2020 9:55 AM
To: Megan Davis <mdavis@louisvilleco.gov>
Subject: aircraft noise

What changed in the last year where now there are so many airplanes being routed over Louisville?

It's a constant problem now, and I have read all the sites on the noise abatement efforts, but no one is answering the basic question of what changed about airport operations last year to make this such a bad problem now for Louisville. I don't believe it's just a matter of them being that much "busier" within the span of a year.

From: Ben Miller [mailto:bmiller@flyrmma.com]
Sent: Tuesday, May 19, 2020 11:13 AM
To: kalle.anderson@gmail.com
Cc: Emily Hogan <ekropf@louisvilleco.gov>
Subject: RE: airport noise

Emily Hogan passed along your questions regarding the airport. I'll do my best to answer them below.

- To the airport's knowledge, there has been no change in local traffic routing for a significant period of time. The typical IFR (most jets and turboprops) and VFR (most smaller aircraft) departure and arrival procedures are detailed on pages 17-23 of the City of Louisville's consultant report on RMMA, and can be viewed here: <https://www.louisvilleco.gov/home/showdocument?id=23856>
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I hope this helps. As a reminder, the airport does not direct nor control aircraft operations. The City of Louisville's page on the airport consultant's work is an excellent summary of the issues and can be viewed here: <https://www.louisvilleco.gov/residents/rocky-mountain-metropolitan-airport>

BEN MILLER, AICP

Airport Development Coordinator

Rocky Mountain Metropolitan Airport

11755 Airport Way | Broomfield, CO 80021

Office: 303-271-4854

bmiller@flyRMMA.com | www.flyRMMA.com



From: Emily Hogan <ekropf@louisvilleco.gov>

Sent: Monday, May 18, 2020 12:12 PM

To: Ben Miller <bmiller@flyrmma.com>

Subject: FW: airport noise

Hi Ben. I have a resident with a few questions on airport operations. Can you respond to the following questions (or respond to the resident directly – see email below):

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- Was there a specific change in traffic routing policy that occurred within the last year that may have resulted in additional Louisville overflights?

Thank you!!

Emily Hogan

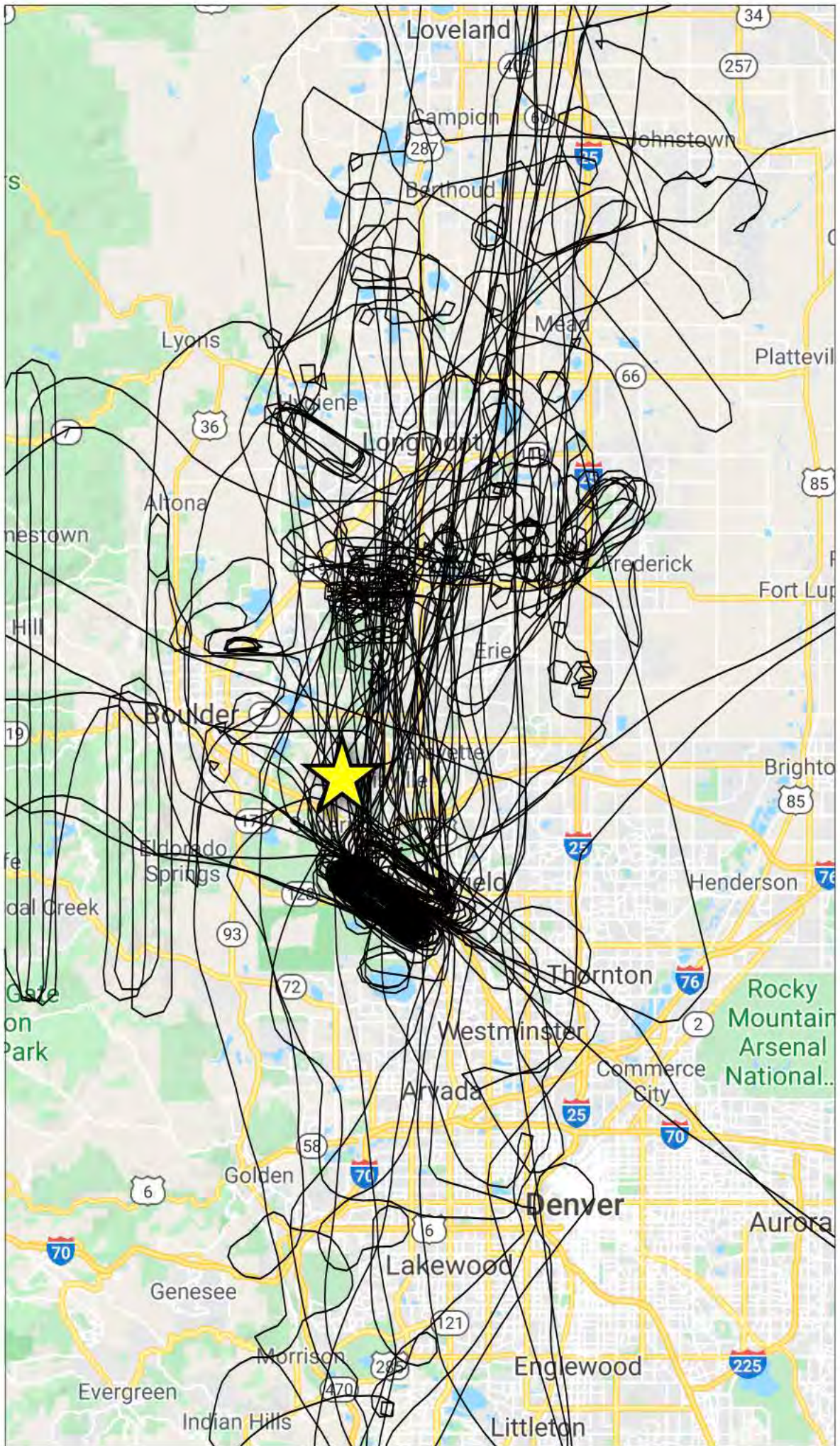
Assistant City Manager for Communications & Special Projects

City of Louisville

303-335-4528

ehogan@louisvilleco.gov

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May 14, 2020

Mayor Ashley Stolzmann
228 South Jefferson Avenue
Louisville, CO 80027

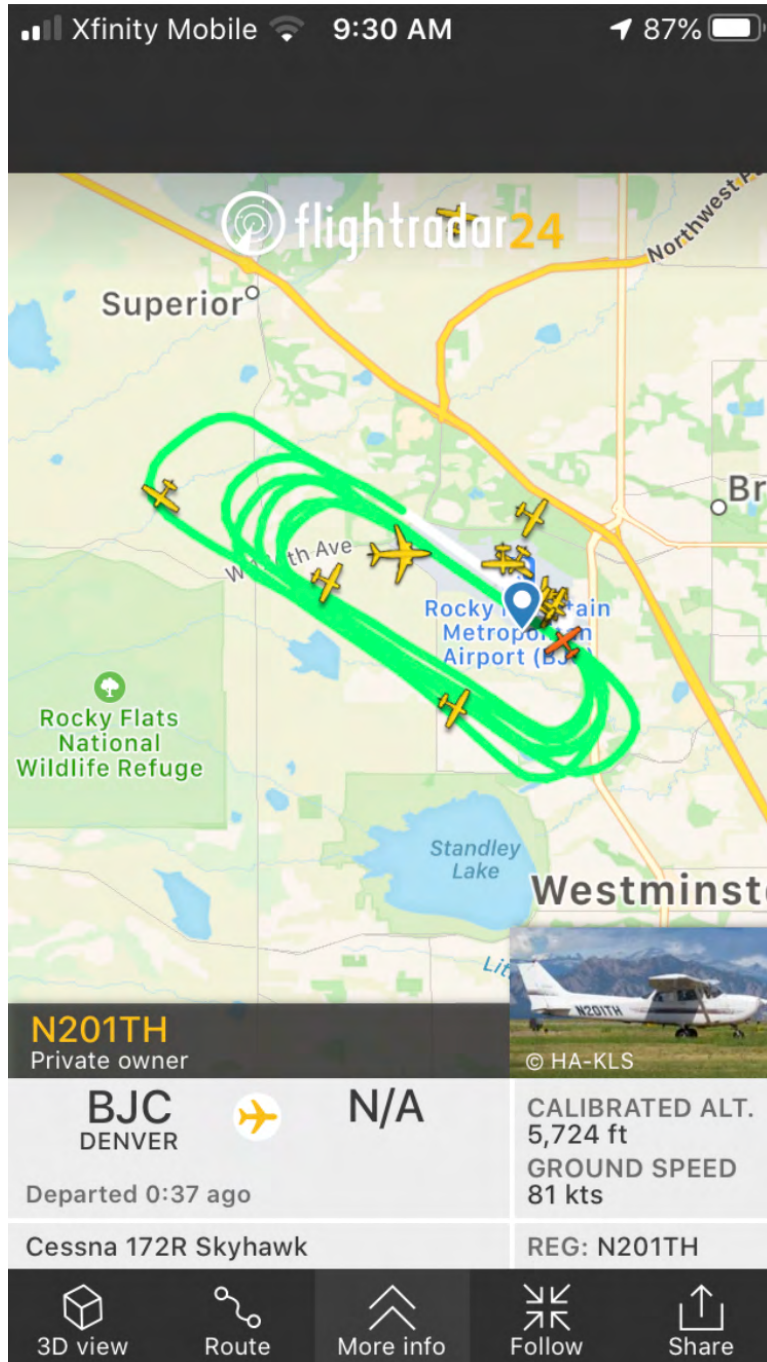
Dear Mayor Stolzmann,

I hope you and your loved ones are doing well. I cannot imagine the challenges you must be facing as the mayor of our city right now. If I can be of service to you in any way, please don't hesitate to call on me.

Although this is far from the most pressing matter at the moment, I'd like to write with some perspective about the airplane noise out of RMMA that plagues the peaceful skies above our great city. If my name sounds familiar, we met a couple of times during the open space/gate policy discussions back in early March. I'm the guy who knocked on your door to hand out a flier, totally unaware that I was making a pitch to the mayor. :) By the way, you were a very gracious leader and clear communicator during that brief but emotional situation in our community. You may also recall that we spoke at your doorstep about RMMA because you mentioned you were just about to board a plane for DC to meet with our state representatives about the matter. If you have a synopsis of how that went, I'd love to hear it.

First, I'd like to try and summarize the problem from a Louisville perspective, and then give a very personal perspective. My hope is that this information may be useful in your efforts to one day find a fair solution.

RMMA is a busy, growing airport. We all know it brings economic benefit to the area, and most of that is tied to the ability for corporate jets to zip in and out. Those flights are brief and far-between. Private jets (as opposed to propeller planes) are relatively quiet and fast—they are in and out of the airspace quickly. I have no issue with those. There is a purpose to them, and they are not just repeatedly pillaging our environment. I believe there are two problems, and both stem from the propeller planes operated by the four (or more?) flight schools based at RMMA. One problem is for Superior, and that is the around-and-around touch-and-go loops that occur in the vicinity of South Rock Creek neighborhood. Here is a snapshot from this morning—just as I am writing this letter to you. This is from FlightRadar24, a free app that I recommend. When I see this map, my heart hurts for those poor residents of Superior who must endure that day and night.



However, we in Louisville are subject to a slightly different flavor of hell emanating from RMMA. There are apparently some designated flight school training grounds to the north of Louisville, a bit east of Niwot and south of Longmont. All day long, propeller planes operated by the flight schools take off from RMMA and head due north to the training grounds. Thank goodness they have the decency to fly up there before doing their practice maneuvers rather than just doing it right over our populated Louisville, but still they must use our airspace to climb and fly to that area, and then

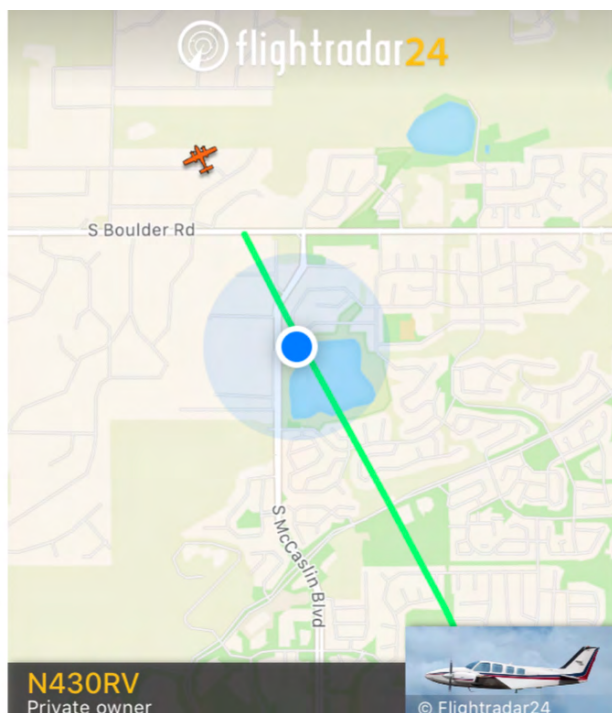
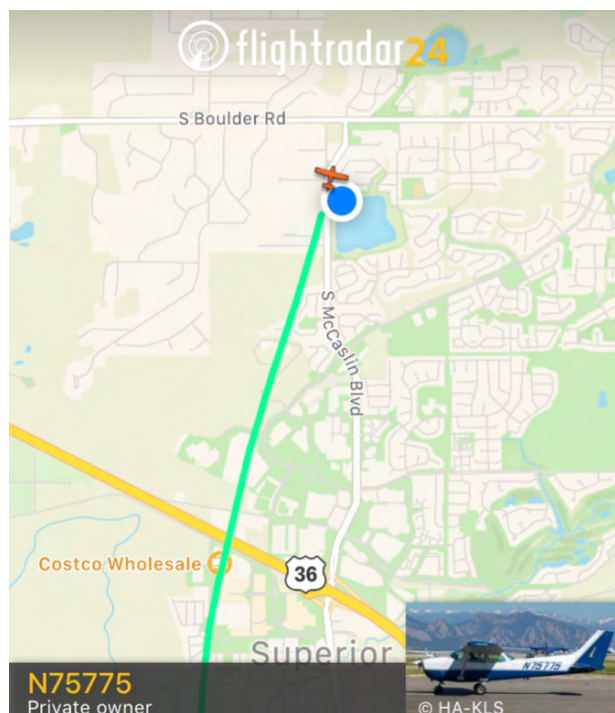
return to RMMA over the same route over Louisville. Here is a screen shot from this morning—one of many that look exactly like this already and it's only 9:40 AM.



This is the matter of interest to Louisville. Both are terrible, but the flight schools almost certainly view these as distinct operations and therefore making progress on one does not necessarily equate to progress on both. As our elected representative here in Louisville, I ask you to please take that nuance into consideration.

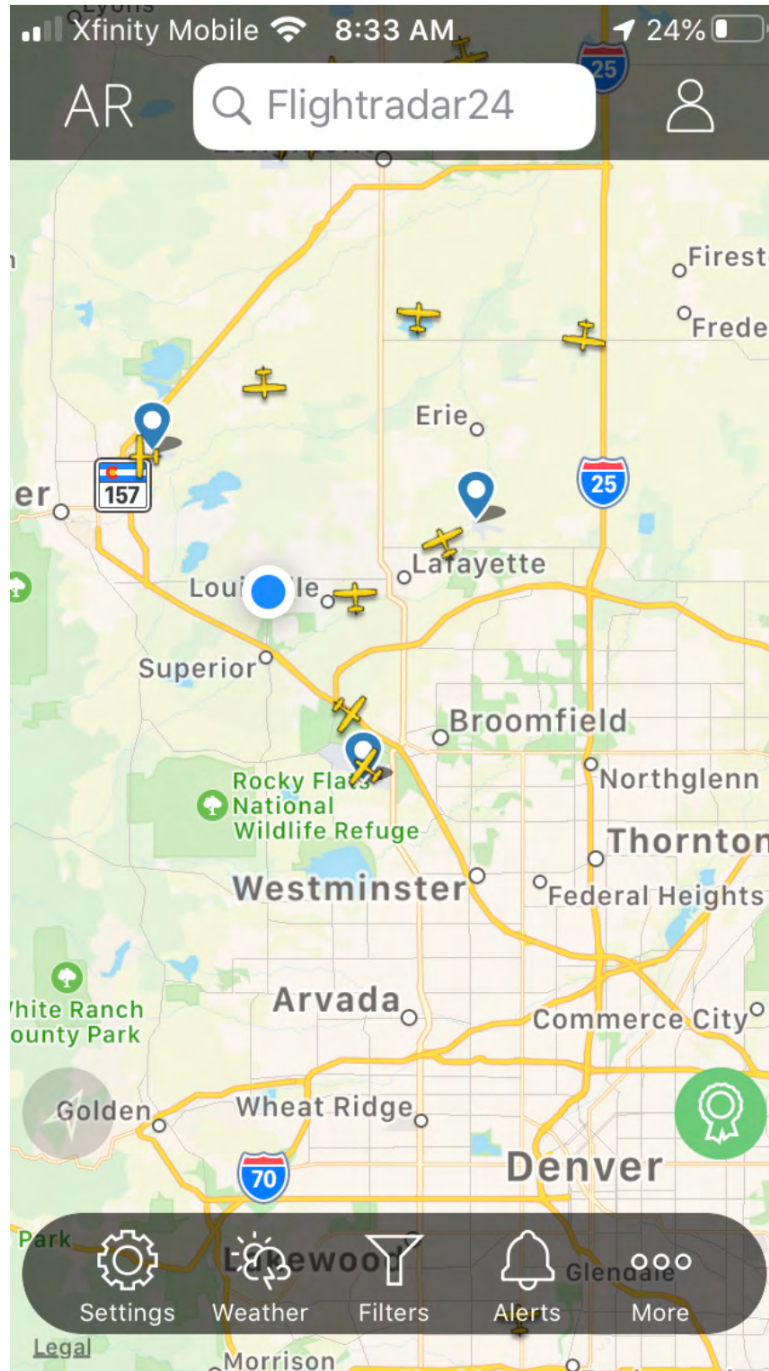
Wildlife Sanctuary (named after Leon Wurl). When the planes fly overhead, which is more often than planes not flying over, the sounds of birds chirping, geese honking, footsteps on the trail, kids laughing, neighbors saying hello in the distance, and an occasional dog saying hello to passers by, all fade away into the din of an aging propeller engine that will be the dominant source of stimulus for the next few minutes. All you can hear, and all you can think about is the one or two individuals with a very particular socioeconomic status sitting in an airplane looking down at our lovely lake and landscapes. The sad part is that, eventually, you actually stop and notice it when it's strangely quiet for a brief minute. RMMA is destroying the quality of life in Louisville, and anyone who isn't complaining simply hasn't noticed it yet (and I envy them).

I don't want to sound like a conspiracy theorist, because I do not think there is necessarily a systematic and intentional tendency to fly over this lake, but it's hard not to notice how many times planes take off from RMMA, head to Harper Lake (easy to visually identify), and continue their path to loop-de-loop land up north. As an environmental scientist in my day job, I can't imagine there not being an impact on the wildlife in addition to us humans. Here are two examples from that morning last week; they are simply zoom-ins from the above mosaic.



RMMA sits in Broomfield and is owned/operated by Jefferson County. You know the local boundaries better than I, but it is plainly obvious that they send just about every plane straight north into Boulder County to fly directly over Louisville, and toward the more open areas near Longmont where they do their practice maneuvers. It is terribly

unfortunate for Louisville that we sit in the path between RMMA and those training grounds to the north. It's a super-highway of slow, loud prop planes from morning to night. For example, here is a more zoomed-out view of the situation on that morning last week. There are no planes to the south—they all enjoy the Superior and Louisville airspace.

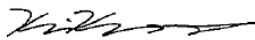


Why, with all the sparsely inhabited space to the west and south of the airport (e.g., Rocky Flats, Colorado Hills, etc.) do they insist on flying over Louisville? Obviously, because they don't want to pillage the peaceful environment within their own county. I realize the FAA mandates that RMMA cannot tell pilots where to fly, or they risk losing funding, but surely a case can be made that these planes should try to avoid this area as much as possible.

I am also not naïve to the fact that this is a David versus Goliath fight, and we are probably going to lose it. Every airport in the country has angry residents, but we are not considered at all by RMMA. We live miles from the airport and we are impacted just as much as those who bought a house knowing it was built at the end of a runway. I have attended several meetings hosted by either city, at various locations including RMMA. One of the most appalling things I saw was the RMMA advisory board meeting a couple months ago. They care about one thing, and one thing only: money. They gloat about the growth in operations in front of us citizens in attendance as if to gaslight us. They even pretend to have a “neighborhood liaison” on the board. Unsurprisingly, he’s a gentleman who flies one of those noisy little planes for hobby; the pretense of neighborhood representation and his conflict of interest was nauseating. City Council Member Jeff Lipton was sitting right behind me and I’m sure he spotted that.

So, I do not pretend to understand the intricacies of the dynamics and regulations between federal, state and county/city level, but I merely wanted to provide this informed perspective from a Louisville resident. I have only been one for about five years, but I plan to be one forever.

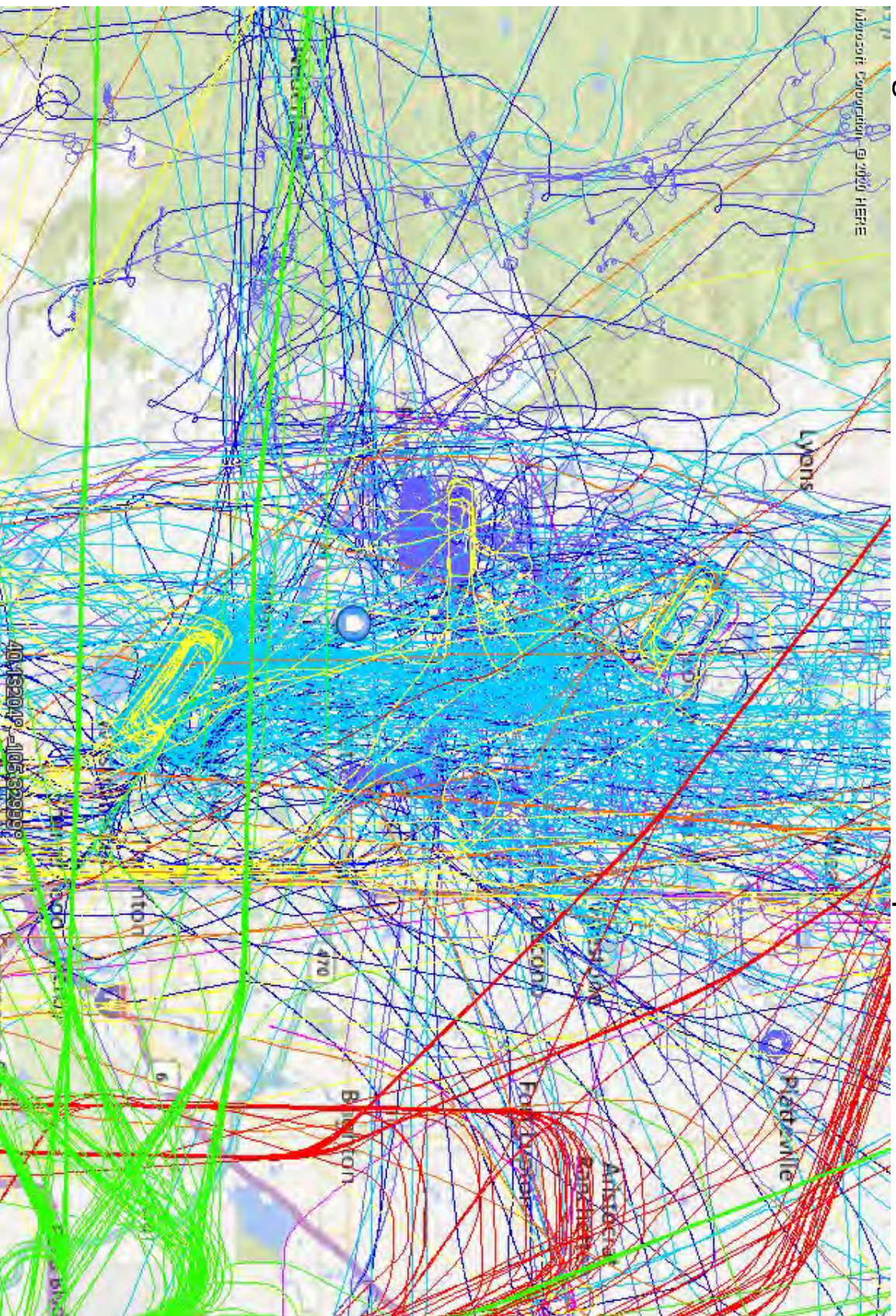
Sincerely,



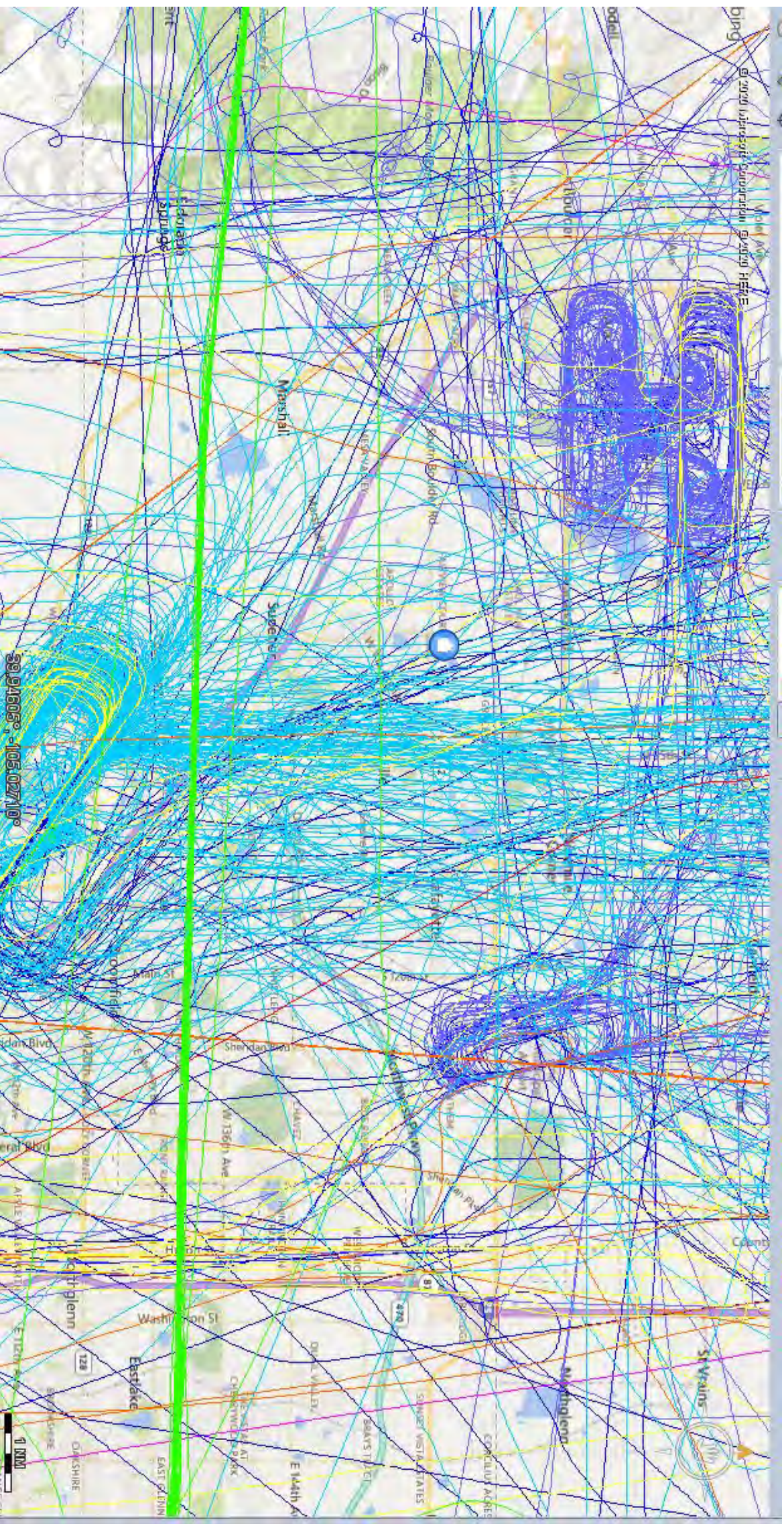
Kris Karnauskas, Ph.D.
1022 West Alder Street
Louisville, CO 80027

Sunday May 17, 2020 24 hours all traffic all airports. Zoomed Out

Blue colors are back and forth from Boulder, Erie Tri County and Rocky Mtn Metro Yellow and Orange are back and forth To Centennial. Green DEN Departures. Red DEN Arrivals.



- Sunday May 17, 2020 24 hours all traffic all airports. Zoomed In.
- Blue colors are back and forth from Boulder, Erie Tri County and Rocky Mtn Metro Yellow and Orange are back and forth To Centennial. Green DEN Departures. Red DEN Arrivals.



Megan Davis

From: Renee Christian <reenebob@rocketmail.com>
Sent: Wednesday, May 27, 2020 1:07 PM
To: Town Board; board@rockcreekhoa.com; board@rockcreekhoa.com; City Council; City Council; Boulder County Board of Commissioners; tammy.story.senate@state.co.us; tammy.story.senate@state.co.us; Matt Gray; Kim Redd; jill.grano@mail.house.gov; jill.grano@mail.house.gov
Subject: RMMA Noise

I am writing to make you all aware of the increased noise from the Rocky Mountain Metropolitan Airport ("RMMA"). During this pandemic, my husband and I are trying to keep busy and happy by opening the windows to the fresh air, working in the yard and garden, and hanging out on the deck. Unfortunately, the noise pollution from RMMA is making that impossible. Just this morning, there have been constant noisy flyovers from the flight training schools and about a half dozen large noisy jets. We would like to think that this morning is the exception, but lately its the norm. We cannot believe that RMMA is actually increasing their noise (and air) pollution during this time. Why does this airport have so much power? We are begging all of you to contact the airport immediately and make the noise stop. This is not what we bought into when we moved here more than a dozen years ago. We are extremely disappointed that the RMMA noise issue is not yet resolved. PLEASE SOMEBODY make it STOP!

Sincerely, Renee Christian and Robert Rickard



Jefferson County Commissioners
100 Jefferson County Parkway, Suite 5550
Golden, CO 80419

July 16, 2020

Dear Commissioners Dahlkemper, Szabo and Tighe:

Thank you for your response to our letter regarding RMMA airport noise impacts, dated June 18th. We appreciate your attention to this matter and engagement in next steps to address the noise impacts created by the RMMA. To emphasize the impacts experienced within our community, I've attached are the most recent emails that we have received on this matter.

The City of Louisville and Town of Superior recently met with the RMMA staff to discuss the formation of an Airport Roundtable and how to move it forward. We are grateful that Jefferson County has solidified a date for the initial discussions on the Roundtable formation, and look forward to getting to work on potential solutions to address this issue.

I wanted to respond to the County's comments regarding FAA control over aircraft operations and routing at RMMA. The City understands the parameters of FAA controls and assurances around changes to RMMA operations. However, there are many things that the County and Airport can do to help mitigate the impacts of airport operations on neighboring communities. Jefferson County leadership could be demonstrating strong influence with businesses and users of the RMMA regarding the Fly Quiet program, and expectations around reducing community impacts.

There are also numerous efforts that the County and RMMA can take to better support and endorse noise reduction efforts, such as promoting and incentivizing the utilization of voluntary procedures that reduce community impacts, measuring the effectiveness of these voluntary procedures and communicating that to the public, and actively seeking noise reduction strategies that can be vetted by the Roundtable and FAA.

The Roundtable will help identify measures that can be addressed immediately as well as those that will require FAA involvement. However, strong Jefferson County leadership around noise mitigation and a commitment to moving forward with the impacts to neighboring communities at the forefront of the conversations is critical.

Thank you for your time and leadership regarding this matter.

Sincerely,

Ashley Stolzmann, Mayor
City of Louisville, CO

From: ROBIN MACLAUGHLIN <ROBINCMAC@msn.com>

Sent: Monday, June 15, 2020 9:50 AM

To: Ashley Stolzmann

Subject: Re: Airplane noise

Hi Ashley ,

Thanks for the response.

The noise from airplanes is only getting worse. There is a propeller plane flying over our house (Coal Creek Ranch South) every 3-4 minutes. It sounds like we live next to a massive highway , but in the sky. Is there anything a resident can do to help with the efforts to mitigate this noise pollution?

Thanks

Robin MacLaughlin

Sent from my iPad

>

> _____

> From: ROBIN MACLAUGHLIN <robincmac@msn.com>

> Sent: Monday, May 18, 2020 10:03 AM

> To: City Council

> Subject: Airplane noise

>

> Please !? Can you do anything about the constant airplanes flying over our house all day long ? We live near avista hospital in Louisville.

> It is ALL DAY and LOUD .

> Thanks

> Robin MacLaughlin

From: Kristopher Karnauskas <kristopher.karnauskas@colorado.edu>

Sent: Tuesday, June 16, 2020 8:13 AM

To: Jeff Lipton; Ashley Stolzmann

Subject: Last Saturday - 92 flights before noon

Good morning, Ashley and Jeff,

In case last Saturday (6/13) seemed busy, there were 92 flights before noon. Half were officially logged as "RMMA to RMMA" but many of the ones logged otherwise are still RMMA flight schools (they may pop over to Vance Brand, Boulder, Centennial, etc, which re-sets the departure data). Here is a little infographic. The dot marks my house on the NW corner of Harper Lake, and of course downtown is just a bit east from there.

Kris

From: Kristopher Karnauskas <kristopher.karnauskas@colorado.edu>
Sent: Tuesday, June 16, 2020 9:05 AM
To: Ashley Stolzmann; Jeff Lipton
Subject: The Effect of Leaded Aviation Gasoline on Blood Lead in Children

Dear Ashley and Jeff,

A colleague shared this article, published three years ago in the *Journal of the Association of Environmental and Resource Economists*, which is a peer-reviewed scientific journal, published by the University of Chicago Press. The authors are primarily from Colorado State University.

The article is called The Effect of Leaded Aviation Gasoline on Blood Lead in Children, and the key findings are as follows:

Across a series of tests, and adjusting for other known sources of lead exposure, the authors found that child blood lead levels...

- increase dose-responsively in proximity to airports,
- increase dose-responsively in the flow of piston-engine aircraft traffic,
- increase in the percentage of prevailing wind days drifting in the direction of a child's residential location

This is significant because the study focuses on piston-engine aircraft, which is the vast majority of RMMA's air traffic, especially the flight schools. On top of that, the flight schools are probably using aging models, with even less mitigation of lead emissions. It is also disconcerting that, as the authors note, the EPA is resistant to addressing this issue. The study looks at the effect of wind direction (and whether you live upwind or downwind of airports like RMMA).

Since the planes flying from RMMA to the northern training grounds (passing directly over Louisville within a highly concentrated corridor) do so typically at about 6,200 feet ASL (and my house is 5,620 feet ASL, downtown is 5,345 feet ASL), we are all being exposed to this every day. On average, they fly 580 feet above my house, or 855 feet above Main Street. The tallest building in Denver is only 714 feet tall. Imagine a daily parade of lead-emitting planes, each containing 1-2 humans, flying at the level of the 45th story. That is currently our plight.

Previously, when hearing from other members of our community that this could have an impact on us through air pollution (in addition to noise pollution), I generally thought this was not a strong argument. This study and ones like it have changed my mind.

Kris Karnauskas
Louisville

From: William G. Falardeau <bill.falardeau@att.net>

To: Kim Redd <kim.redd@mail.house.gov>; Jill Grano <jill.grano@mail.house.gov>; tammy.story.senate@state.co.us <tammy.story.senate@state.co.us>; Matt Gray <matt@matthewgray.us>; Boulder County Board of Commissioners <commissioners@bouldercounty.org>

Sent: Monday, May 25, 2020, 4:30:18 PM MDT

Subject: Increased Flight Training Noise from RMMA over Boulder County

5/27/20

Dear Representative Neguse, Senator Story, Representative Gray, Boulder County Commissioners,

Happy Memorial Day to you. We hope you and your families are safe and well.

This afternoon (at home), we have had constant touch and go noise from RMMA. Since the stay at home order lifted, Boulder County has been inundated by training flights. Many in Louisville and Superior are complaining. Most flights are in Boulder County heading to the Northern Training Area - there is no Southern Training Area in Jefferson County or Eastern Training Area in Broomfield County.

Boulder County has most of the noise and pollution from RMMA.

My question for Senator Story and Representative Gray is: How would your constituents feel if the roles were reversed? What if the airport were in Boulder County and Boulder County directed most flights into either Jefferson County or Broomfield County? I believe those constituents would complain.

Using a Northern Training Area and doing touch and goes over Superior **never** existed before Director Anslow (January 2018). He changed flight patterns without a Roundtable of cities and broke an aviation agreement with Superior.

Hopefully we can work together to find solutions where one county, Boulder County, does not bear all of the noise and pollution. I know COVID 19 has interrupted the Roundtable and work on solutions, but RMMA has slow walked any help to provide relief for Boulder County.

Please help us. I am including a DIA Noise Map from 5/17/20 of the air traffic Louisville and Superior endured that day from RMMA. This summer will be intolerable if we don't have help.

Sincerely,
Karen and Bill Falardeau
Superior, CO 80027

From: Laura Pederson [<mailto:lp pederson@comcast.net>]

Sent: Saturday, June 13, 2020 8:37 AM

To: City Council <Council@louisvilleco.gov>; Ashley Stolzmann <ashleys@louisvilleco.gov>

Subject: Airport Noise

Hi,

Despite all the goodwill and cooperation that was established after the noise study, it seems that the RMMA is back to it's old ways - or even worse.

The airport noise over the Hillsborough North neighborhood feels almost constant in the last few days. In the last 2 days, it has woken us up a little after 6 am. There have been at least 8 flights between 6 and 7 am. Our neighborhood has been filing complaints with RMMA, but so far they have not shown any interest in changing their behavior.

Please advocate for us with RMMA. Getting woken up at 6 am and listening to almost constant planes over head all day is not acceptable.

Thanks and Regards,

Laura

Megan Davis

From: William G. Falardeau <bill.falardeau@att.net>
Sent: Thursday, June 4, 2020 11:21 AM
To: commish@jeffco.us
Cc: Town Board; board@rockcreekhoa.com; Boulder County Board of Commissioners; City Council; tammy.story.senate@state.co.us; Matt Gray; Kim Redd; Jill Grano
Subject: RMMA Roundtable Needed - Boulder County Receives most of the Noise and Pollution

Dear Jefferson County Commissioners,

The airplane noise issue has reached an intolerable tipping point for our community and we need to take more aggressive action. The Louisville City Council established making significant progress in reducing airplane noise one of their top priorities in their 2020 City work plan.

With considerable consultation with our federal, state, and local partners, it was agreed that the most constructive and practical approach to helping mitigate the airplane noise impacts to our community was to establish an FAA recommended Airport Noise Community Roundtable.

Since neither the local municipalities nor Rocky Mountain Airport has any jurisdictional authority over the air space over our community, it is important for us to take the FAA lead and establish the Community Roundtable to help get us any permanent relief.

Unfortunately, for a variety of reasons including the Covid pandemic, the lead agency in forming the Roundtable, Jefferson County, has delayed its work in forming the Roundtable. We were hoping to have the Roundtable established and meeting regularly this past winter. To date, the Roundtable hasn't even been formed.

I am contacting you, the Jefferson County Board of Commissioners, to let you know just how important the airplane noise impacts are to us and urge you to immediately move on forming the Airport Noise Community Roundtable. We can no longer wait for this to become a priority for Jefferson County since the reality is that most of the noise impacts are to Boulder County communities such as Rock Creek in Superior and Louisville, and to communities located in Jefferson County closest to RMMA (Westminster).

I am also including a recent email sent to my representatives about RMMA. I will send such emails to you in the future. I have been writing my representatives about RMMA flight school noise for over a year.

Regards,

Karen Falardeau
Rock Creek
Superior, CO 80027

From: William G. Falardeau <bill.falardeau@att.net>
Sent: Thursday, May 21, 2020 4:36 PM
To: Town Board; board@rockcreekhoa.com; City Council; Boulder County Board of Commissioners; tammy.story.senate@state.co.us; Matt Gray; Kim Redd; jill.grano@mail.house.gov
Subject: Rocky Mountain Flight School N4345G Training from 10:23PM until 11:23PM

Dear Mayor Folsom, Superior Trustees, HOA Board, Mayor Stolzmann, Louisville City Council, Boulder County Commissioners, Senator Story, Representative Gray, Representative Neguse,

Last night (5/20/20) at 10:23PM, we heard the first of many passes over our home by a plane from RMMA, registered to G&M Aircraft, which is Rocky Mountain Flight School. Greg Boom, who was in a cover article recently for Daily Camera, is the owner of that flight school. He also owns Mountain Aviation.

This plane's touch and goes lasted until 11:22PM - a whole hour - just as we were trying to get to sleep. The CDC recommends rest during this stay safer at home order. How can we rest with a plane needlessly circling our home for an hour at that time of the night?

This goes against the "voluntary noise abatement policy" rolled out by RMMA last year. That policy states that flight schools at RMMA are requested not to fly after 10:00 PM.

Please address this issue with the consultants and the flight schools. N4345G was the only plane in the sky at that hour. The flight loops did not have to be over any Rock Creek homes. Please encourage tighter loops and respect for residents' sleep during this pandemic.

Below are screen shots from Flight Aware and FlightRadar24 for Registration Number N4345G on 5/20/20:

FLIGHT TIMES

Takeoff	Landing
10:23PM MDT	11:22PM MDT
Scheduled 10:23PM MDT	Scheduled 11:22PM MDT

AIRCRAFT INFORMATION

Tail Number [N4345G · Registration](#)

Owner G & M AIRCRAFT INC

Aircraft Type Piper Cherokee (piston-single) ([P28A](#))

[Photos](#)

FLIGHT DATA

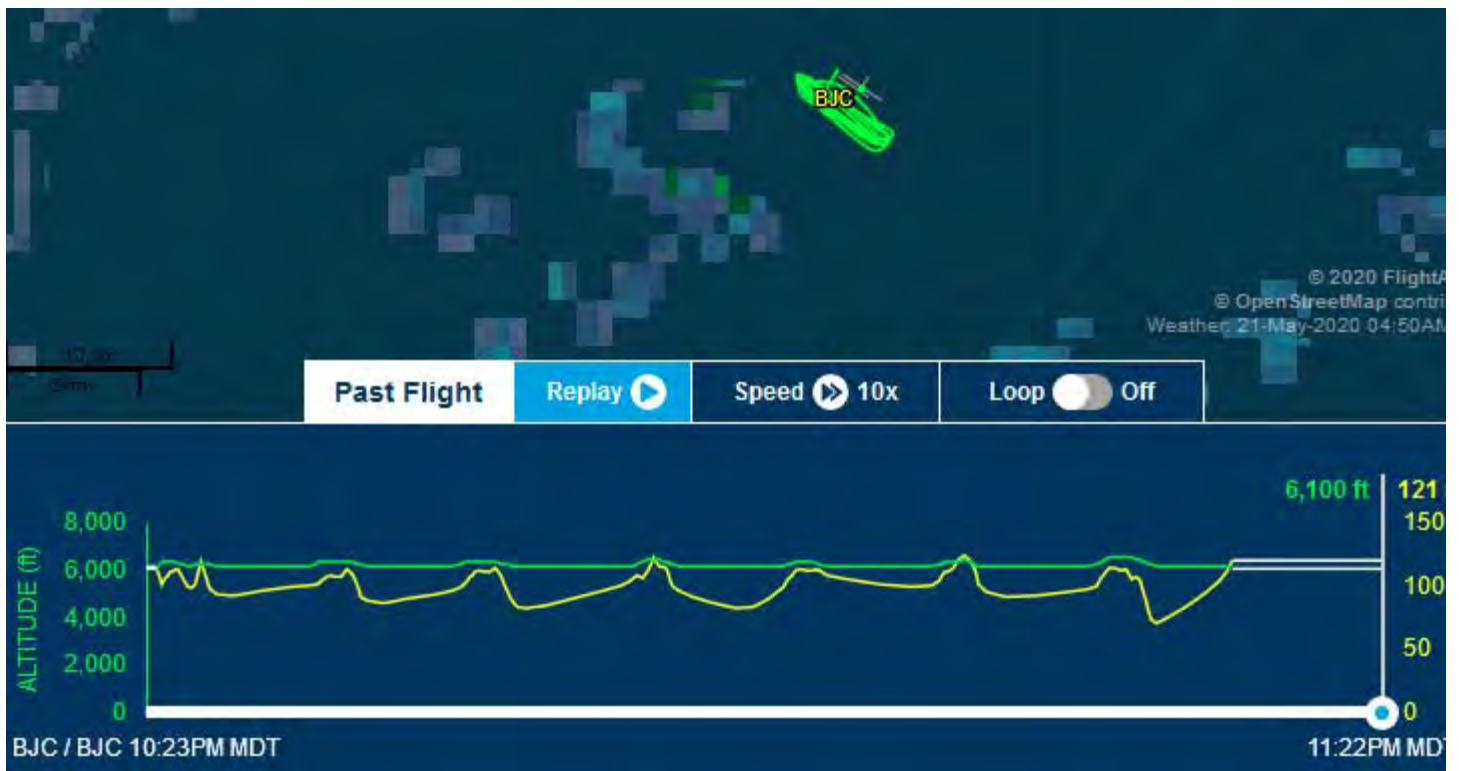


Speed —

Altitude —

Distance Actual: 60 mi

Route —



N4345G
 Private owner

© HA-KLS

BJC **BJC**
 DENVER DENVER
 MDT (UTC -06:00) MDT (UTC -06:00)

ACTUAL 10:22 PM ESTIMATED * 10:44 PM

2 km, 00:35 ago 2 km

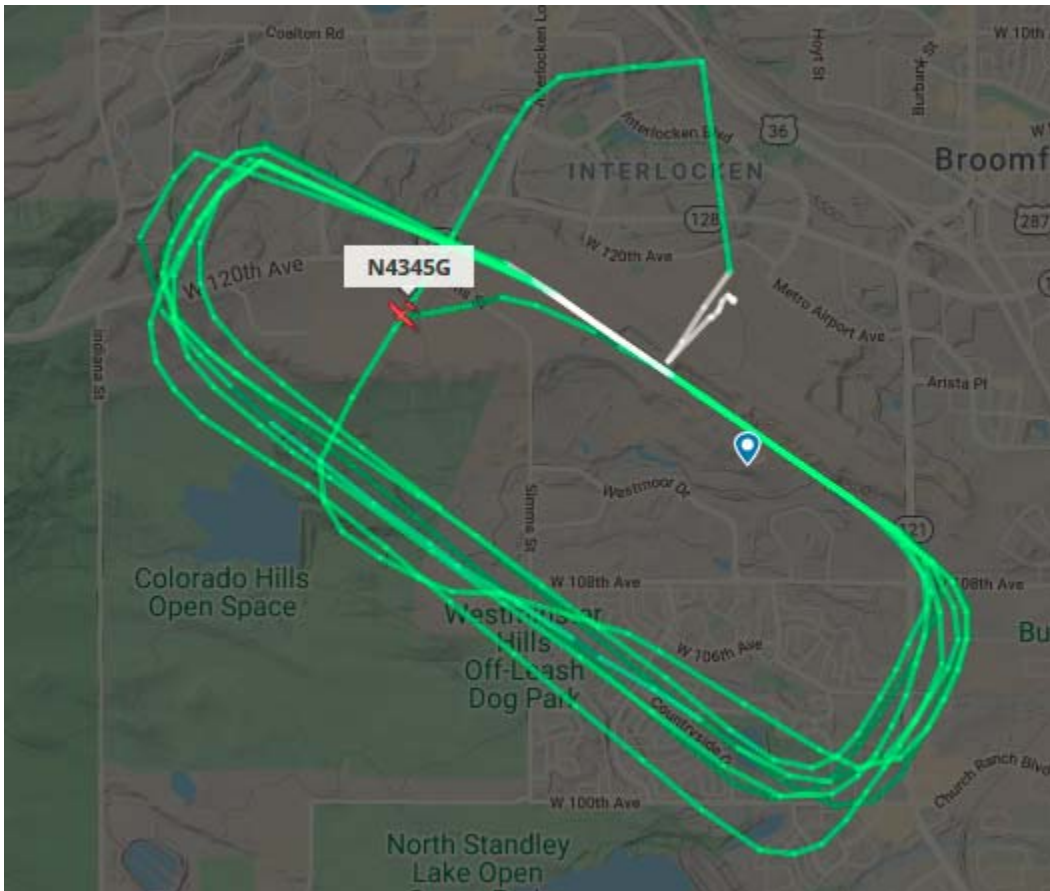
AIRCRAFT TYPE (P28A)
Piper PA-28-161

REGISTRATION **N4345G** COUNTRY OF REG.

SERIAL NUMBER (MSN) AGE

Recent N4345G flights

CALIBRATED ALTITUDE VERTICAL SPEED



Thank you for your attention to this matter.

Sincerely,
Karen and Bill Falardeau
Rock Creek
Superior, CO 80027

Megan Davis

From: Maxine Most <cmaxmost@me.com>
Sent: Monday, June 15, 2020 9:02 AM
To: City Council
Cc: commish@jeffco.us
Subject: RMMA Airplane noise

At least 45 minutes of nonstop prop plane noise over Hillsborough West this morning starting around 8:15.

Not sure if it is one circling prop plane. It literally vibrates my home.

And yes I'm reporting this via the compliant line

C. Maxine Most
Sent from my iPhone

Megan Davis

From: Laura Pederson <lppederson@comcast.net>
Sent: Sunday, June 21, 2020 8:17 AM
To: City Council; Ashley Stolzmann
Subject: From Boulder Daily Camera: Guest opinion: Anne Wilson: Boulder County's airspace overused

Louisville is not alone in being plagued by airplane noise. FYI below.

Guest opinion: Anne Wilson: Boulder County's airspace overused

By [Daily Camera guest opinion](#) | openforum@dailycamera.com | Boulder Daily Camera
June 20, 2020 at 4:00 p.m.
By Anne Wilson

"Boulder County ... some of the most diverse, natural landscapes and sustainable development along the Northern Front Range. A remarkable place to live, work and play." So says bouldercounty.org.

As a long time Boulder County resident, I have recently learned that Boulder County is also something else completely antithetical to these values. According to "Understanding the Airport – ArcGIS StoryMaps," produced by the City of Louisville and the Town of Superior, Boulder County is the flight training area for Rocky Mountain Metropolitan Airport (RMMA).

It says: "Pilots conducting flight training maneuvers often choose to do so in uncontrolled airspace over less populated areas as can be found in northern Boulder and Larimer counties. Many of the aircraft departing RMMA fly to the north, where there is a flight training area north of the airport. The presence of other airports (Boulder, Longmont, Erie, Vance Brand, Northern Colorado, Greeley-Weld) in the area also provides pilots the opportunity to practice takeoffs and landings under different conditions."

Next to this, a map depicts a shaded training area encompassing most of Boulder County plains region. My Heatherwood home, which I purchased in 1997, is in it.

Those of us living in the county are already acutely aware of the huge increase in piston-engine aircraft activity over our homes. My environment is now a constant, daily din of humming, cranking, churning combustion engines. The Boulder County plains region regularly sees 25 to 50 planes in the sky at one time, within roughly 240 square miles.

Planes fly over and near Heatherwood all day, every day. Frequently, there are several planes within a half mile of my home. Very few are transiting. The majority of flight tracks indicate training or recreational exercises – out-and-back tracks that include loops, doodles, and doughnuts. The only thing limiting this activity is weather.

Across the four nearest airports, (Boulder Municipal, Vance Brand, Erie, and RMMA) there are now about 21 flight schools operating. Two are for helicopter training. (Have you noticed the increased helicopter activity? I certainly have.)

These small planes use avgas, which contains more lead than automotive gasoline did before being outlawed in 1996. Probably most of the lead from these flights is emitted.

The Environmental Protection Agency says: "Because of its persistence in the environment, lead deposited from the air may contribute to human and ecological exposures for years into the future." Think about this the next time you see touch-and-go activity, which is common in training.

At Boulder Municipal, touch-and-go activity occurs frequently. Besides many residences, this activity emits lead directly over three primary schools, a church, two farms, Pleasantview soccer fields, Walden and Sawhill open spaces, and Boulder Creek.

There is no recourse for those impacted by this activity. Archaic, unresponsive noise complaint procedures deter complaints. There is no enforcement. Calling this system a "noise abatement procedure" is simply indefensible.

There are currently no limiting factors to the number of planes training and recreating in our sky. It seems the only thing that can interrupt this trend is a crisis.

Now I get it. Boulder County airspace is actually a free and valuable business asset for the aviation community and associated municipalities. These interests market Boulder County as a desirable flight training area. Our taxes and our efforts at preserving what we love about Boulder County created this asset for them, at least until they destroy it completely. We pay for it, they benefit, we suffer the lasting consequences.

The management of our skies is completely broken. It is not Boulder's responsibility to train the next generation of pilots. There are much better locations for this heavy industry. It desperately needs regulation, but our county and city leaders are unable or unwilling to defend us.

(One very exciting but likely unattainable solution is presented here:

<https://centerforneweconomics.org/publications/capitalism-the-commons-and-divine-right/>.)

Me, I'm looking for a new home. This is extremely sad and certainly not what I imagined these 23 years as I worked to make my home my refuge. But the brutal reality that I have come to accept is that Heatherwood is now part of an aviation park.

I am unwilling to live and pay taxes in this environment. Thanks to Louisville and Superior for making this situation utterly clear to me.

Dr. Anne Wilson is a member of the Ronin Institute for Independent Scholarship. She recently retired as a computer scientist for the Laboratory for Atmospheric and Space Physics.

Thanks and Regards,

Laura Pederson

2297 Cliffrose Lane,

Louisville, Co. 80027

INDUSTRY

Pilots, Flight Schools and Airport Tenants

Introduction

Who was here first...



**"I suppose I'll be the one
to mention the elephant in the room."**



3

Our Role

"Airports want to work with their aircraft operators and their communities to provide a safe and efficient airport environment while minimizing the impact of aircraft noise."

- Passur Aerospace, Inc.



Photo Credit: Reddit/Mitch Tobin

Why Should We Care?

“Although aircraft being produced today are 75% quieter than those manufactured 50 years ago, aircraft noise remains the **most significant cause of adverse community reaction related to the operation and expansion of airports worldwide.**”



“Airports that anticipate and effectively address community concerns ... are better positioned both to **reduce the environmental impacts** that are of most concern to the community and to **minimize the likelihood of project implementation delays.**”



5

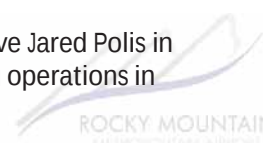
Example - Legislative Response to Community Opposition

Opposition builds to USA Airport noise legislation changes

May 5, 2020

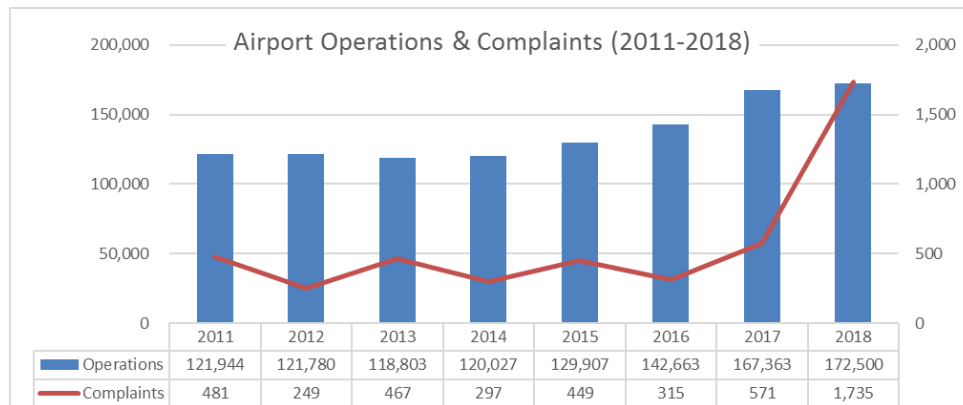
“The **Aircraft Noise Reduction Act** introduced by Neguse in December 2019 would allow the owner or operator of a general aviation airport to restrict the number and type of aircraft operations for compensation or hire occurring at the airport, including flights originating or landing at the airport, and the dates and times of such operations. The amendment requires that the airport takes into account input from local communities when making decisions.”

- Previous attempt similar legislation was included in the FAA Reauthorization Act of 2017
- Polis-Amendment introduced by then Representative Jared Polis in response to community complaints about skydiving operations in Longmont.



6

Noise Complaints



Consistent growth in both aircraft operations and noise complaints.



7

Noise Complaints – By Community

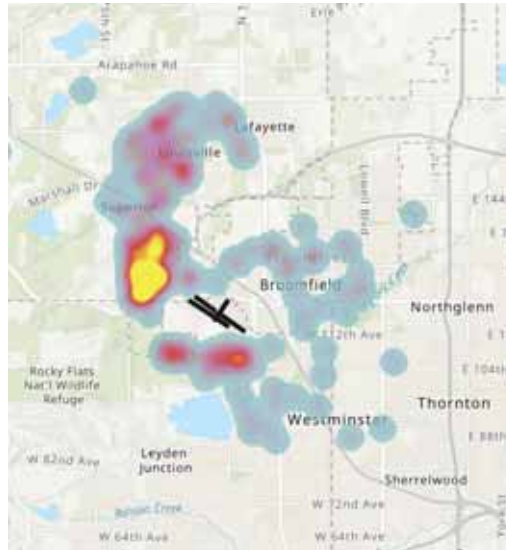
The majority of submissions consistently originate in Superior and primarily, the Rock Creek Community which is overflowed by closed-traffic operations and touch-and-goes.



Rocky Mountain Metropolitan Airport 8

Complaints by Location (2019)

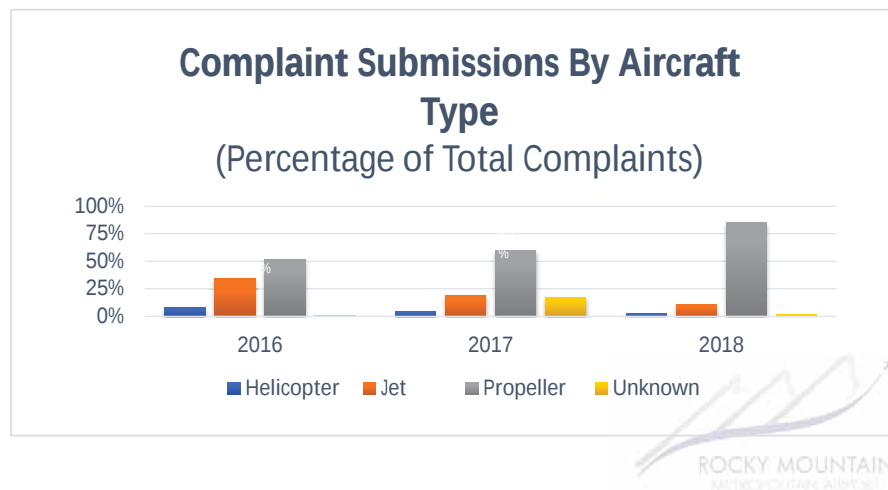
- The majority of complaints (year over year) originate in locations adjacent to runway ends. (Portions of Superior and Westminster)
- Complaints north of airport (around Louisville) primarily associated with overflights to/from the North Practice Area



9

Complaints by Aircraft Type

*The majority of noise complaints are attributed to propeller operations.
Most often, flight training and touch-and-go operations.*



10

Overview of the RMMA Fly Quiet Program



Noise Sensitive Areas



Congested Airspace

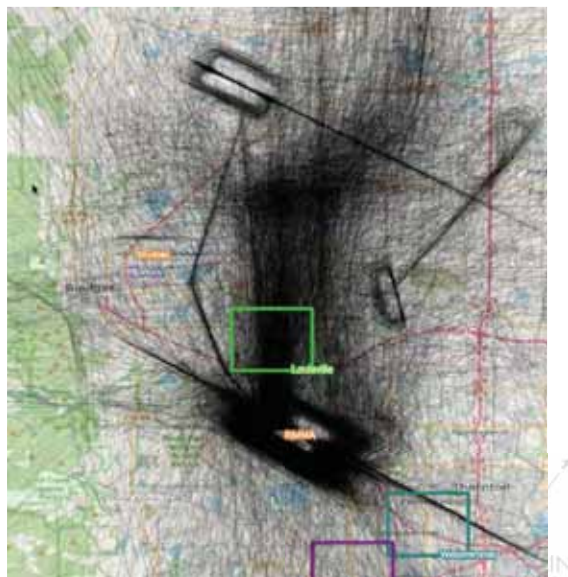
- RMMA is located 20 miles west of Denver International Airport.
- DEN's airspace lies east of RMMA and above RMMA, limiting the flexibility air traffic controllers have when managing the airspace around RMMA
- There is also terrain to the west, which further limits use of the airspace.
- This results in most traffic approaching from and departing to the north or south.



13

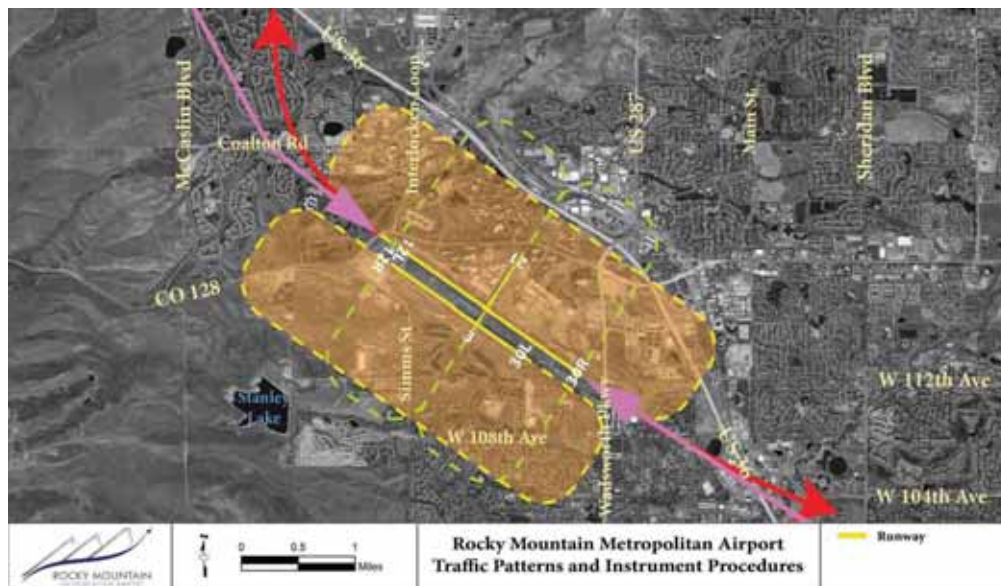
Flight Activity

- Flight activity during September 2020.
- Due to limited use of airspace, the majority of flights go north over Superior and Louisville.



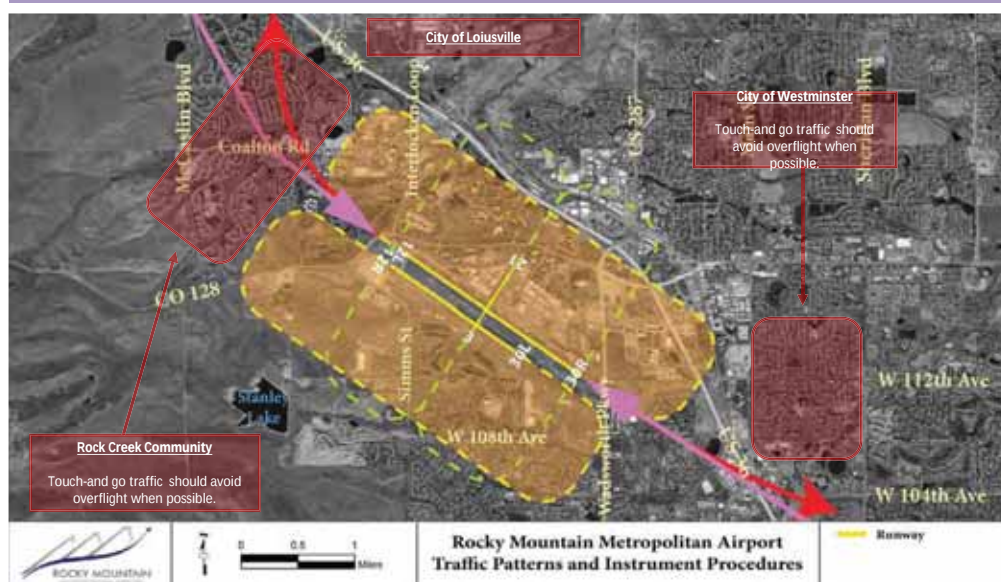
14

Airport Traffic Patterns



15

Airport Traffic Patterns



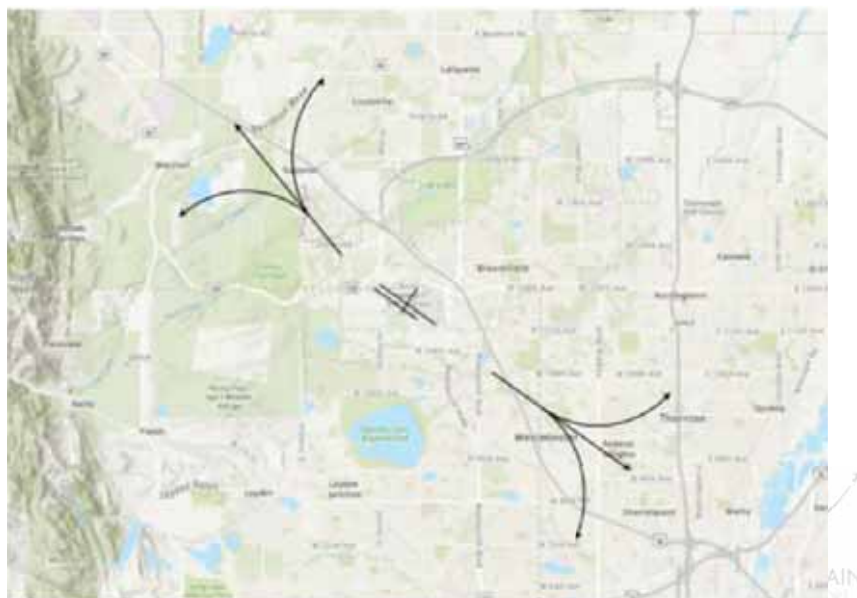
16

Generalized VFR Approach Paths



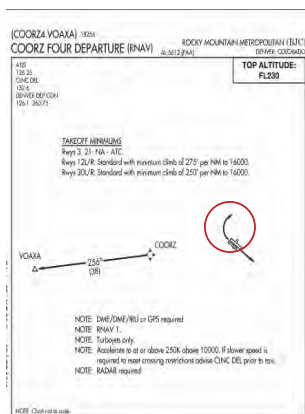
17

Generalized VFR Departure Paths



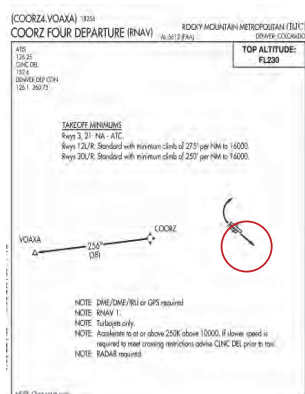
18

Standard Instrument Departures – 30L/R



19

Standard Instrument Departures – 12L/R



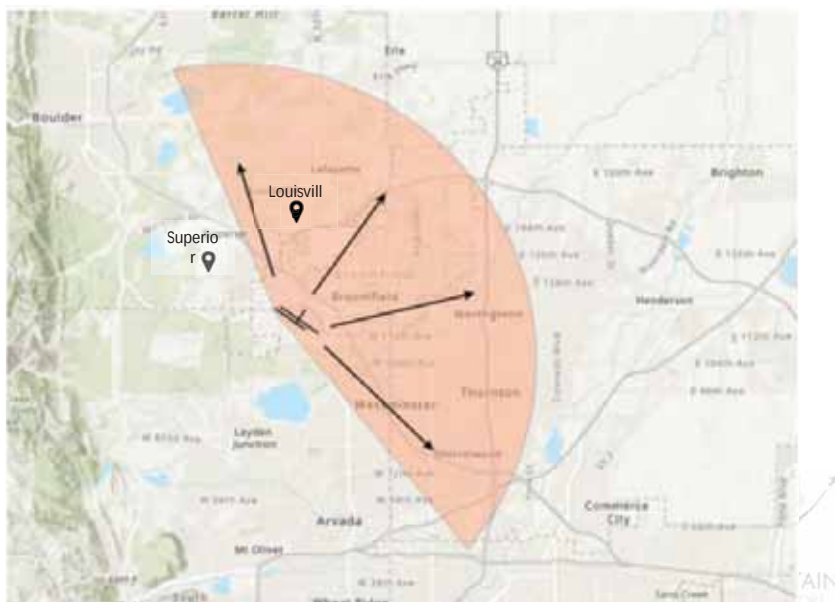
20

Generalized IFR Approach Paths



21

Generalized IFR Departure Paths



22

Typical Routes to/from the North Practice Area



Fly Quiet Program - Overview

- RMMA is surrounded by residential communities. As operations at RMMA have increased over the past few years, aircraft overflights and noise are a growing concern for residents.
- The RMMA Fly Quiet Program includes recommended procedures and practices to help minimize the negative impacts of aircraft operations on surrounding communities.

Note: The RMMA Fly Quiet Program includes recommended procedures and practices intended to reduce aircraft noise impacts in surrounding communities. Program recommendations are not intended to supersede the responsibility of the pilot-in-command for compliance with all applicable Federal Aviation Regulations, air traffic control instructions, and aircraft operating parameters included in the Aircraft Operations Manual.

Noise Sensitive Areas



Fly Quiet Program – Recommended Practices

On take-off, climb out using best angle of climb (V_x).

This enables the aircraft to climb as high as possible before leaving the airport perimeter and reduce noise impacts.

Reduce RPM when possible.

Lower propeller speeds produce less noise.

Fly standard or higher glide path. Remain at or above the VASI.

Shallow approaches increase noise exposure to neighbors below.

Overfly major road corridors and/or open space when able.

When possible, avoid overflight of residential neighborhoods.

Fly Quiet Program – Recommended Practices

Runway 30R is designated the primary, calm-wind runway

Westerly prevailing winds favor 30 the majority of the time.

No intersection departures

Using the full length of the runway is both safer and helps gain more altitude before leaving the airport perimeter.

Maintain pattern altitude of 6,500' for single engine aircraft and 7,000' for twins/turboprops/jets

Engine maintenance run-ups are prohibited between 10:00 p.m. and 6:00 a.m. except in an emergency

RMMA Flight Schools discourage departures after 10:00 PM

This is a voluntary effort to reduce nighttime noise.



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Industry Recommendations



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Cessna Aircraft

Increased emphasis on improving quality of our environment requires renewed effort on the part of all pilots to minimize the effect of airplane noise on the public.

We, as pilots, can demonstrate our concern for the environmental improvement, by application of the following suggested procedures, and thereby tend to build public support for aviation:

- *When able, pilots operating under VFR conditions over recreational and park areas, and other noise-sensitive areas should make every effort to fly not less than 2000 feet above the surface, conditions permitting.*
- *During departure from or on approach to an airport, climb after take-off and descent for landing should be made so as to avoid prolonged flight at low altitude near noise-sensitive areas.*

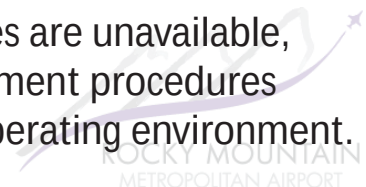
Adapted from from Cessna 172N Pilot Operating Handbook, 1978



29

NBAA Noise Abatement Program

- Recognizing the importance of helping airports remain good neighbors, the National Aviation Business Association created their noise abatement program in 1967.
- Encouraging aircraft operators to understand the impacts aviation can have on communities and the impact community opposition can have on aviation.
- Recommendations for flight crews include:
 - o Be aware of the destination airports' noise abatement programs
 - o Utilize their company's recommended departure/arrival profiles or those recommended by the aircraft manufacturer
 - o When airport or aircraft-specific procedures are unavailable, NBAA provides recommended noise abatement procedures suitable for any aircraft type and airport operating environment.



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NBAA Noise Abatement Program

- The NBAA Noise Abatement Program also encourages collaboration, education, and outreach among flight crews, airport operators, and air traffic control facilities.
- “Effective aircraft noise management requires a collaborative effort between aircraft operators, ATC and airport operators. Minimizing noise impacts is in the best interest of all stakeholders.”



For more information: <http://www.nbaa.org/quietflying>

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AOPA Noise Awareness Steps

- Flying between 10 p.m. and 6 a.m. should be avoided whenever possible.
- If practical, avoid noise-sensitive areas. Make every effort to fly at or above 2,000 feet over such areas when overflight cannot be avoided.
- Fly a tight landing pattern to keep noise as close to the airport as possible. Practice descent to the runway at low power settings and with as few power changes as possible.
- Consider using a reduced power setting if flight must be low because of cloud cover or overlying controlled airspace or when approaching the airport of destination. Propellers generate more noise than engines; flying with the lowest practical RPM setting will reduce aircraft noise substantially.
- On takeoff, gain altitude as quickly as possible without compromising safety. Begin takeoffs at the start of a runway, not at an intersection.
- Use the PAPI. This will indicate a safe glide path and allow a smooth, quiet descent to the runway.
- Familiarize yourself and comply with airport noise abatement procedures.

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AOPA Noise Awareness Steps (Cont'd)

- Retract the landing gear either as soon as a landing straight ahead on the runway can no longer be accomplished or as soon as the aircraft achieves a positive rate of climb. If practical, maintain best-angle-of-climb airspeed until reaching 50 feet or an altitude that provides clearance from terrain or obstacles. Then accelerate to best-rate-of-climb airspeed. If consistent with safety, make the first power reduction at 500 feet.
- If possible, do not adjust the propeller control for flat pitch on the downwind leg; instead, wait until short final. This practice not only provides a quieter approach, but also reduces stress on the engine and propeller governor.
- Avoid low-level, high-powered approaches, which not only create high noise impacts, but also limit options in the event of engine failure.
- Perform stalls, spins, and other practice maneuvers over uninhabited terrain.

Note: These are general recommendations. Some may not be advisable for every aircraft in every situation. No noise reduction procedure should be allowed to compromise flight safety.

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Other Recommendations and Best Practices

- Familiarize yourself with the aircraft-specific noise abatement procedures published by the aircraft manufacturer. These are typically included in the Pilot Operating Handbook.
- When departing on Runways 12R-30L and 12L-30R, initiate crosswind turn as soon as able.
- When transitioning to/from practice areas, maintain the highest possible altitude over residential and other noise-sensitive areas.
- Keep crosswind and base-turns as close to the airport as possible.
- Minimize the use of reverse thrust when able. Use the full runway for landing.
- Avoid touch and go activity between 10 PM and 7 AM.

Local and Regional Collaboration



35

Collaboration with Local Partners (Industry)

All stakeholders play a role in helping RMMA remain a good neighbor.

Industry collaborations include working with airport tenants, business, flight schools, and users to encourage awareness and voluntary compliance with the RMMA Fly Quiet operational recommendations. Industry engagement includes:

- Flight School and Student Training
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- RMMA Tenant Briefings
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- Engaging residents to answer questions and encourage awareness of flight operations, flight patterns, and aircraft noise in the area.
- Encouraging municipal and county governments and land-use planning authorities to encourage development that is compatible with existing and future flight patterns and aircraft noise exposure.
- Ongoing collaboration with local county and municipal governments to understand and address resident concerns.
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Summary

Aircraft noise is the greatest community impact for residents living near the airport.

Aircraft noise is a growing concern nationwide, resulting in increasing community annoyance and opposition to aviation.

With your help, we can reduce community impacts, while maintaining safe operations.

Please help RMMA remain a good neighbor and member of the regional community!



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THANK YOU!

Your support of our noise abatement efforts is appreciated.



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INDUSTRY

Air Traffic Control

Who was here first...



**"I suppose I'll be the one
to mention the elephant in the room."**



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Our Role

"Airports want to work with their aircraft operators and their communities to provide a safe and efficient airport environment while minimizing the impact of aircraft noise."

- Passur Aerospace, Inc.



Photo Credit: Reddit/Mitch Tobin

Why Should We Care?

“Although aircraft being produced today are 75% quieter than those manufactured 50 years ago, aircraft noise remains the **most significant cause of adverse community reaction related to the operation and expansion of airports worldwide.**”



“Airports that anticipate and effectively address community concerns ... are better positioned both to **reduce the environmental impacts** that are of most concern to the community and to **minimize the likelihood of project implementation delays.**”



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Example - Legislative Response to Community Opposition

Opposition builds to USA Airport noise legislation changes

May 5, 2020

“The **Aircraft Noise Reduction Act** introduced by Neguse in December 2019 would allow the owner or operator of a general aviation airport to restrict the number and type of aircraft operations for compensation or hire occurring at the airport, including flights originating or landing at the airport, and the dates and times of such operations. The amendment requires that the airport takes into account input from local communities when making decisions.”

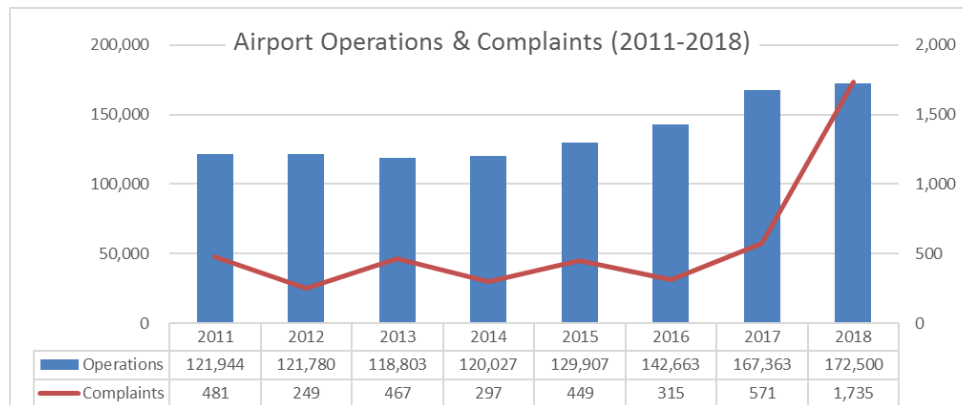
- Previous attempt similar legislation was included in the FAA Reauthorization Act of 2017
- Polis-Amendment introduced by then Representative Jared Polis in response to community complaints about skydiving operations in Longmont.



Source: Business Airport International (<https://www.businessairportinternational.com/features/feature-airport-noise-legislation.html>)

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Noise Complaints



Consistent growth in both aircraft operations and noise complaints.

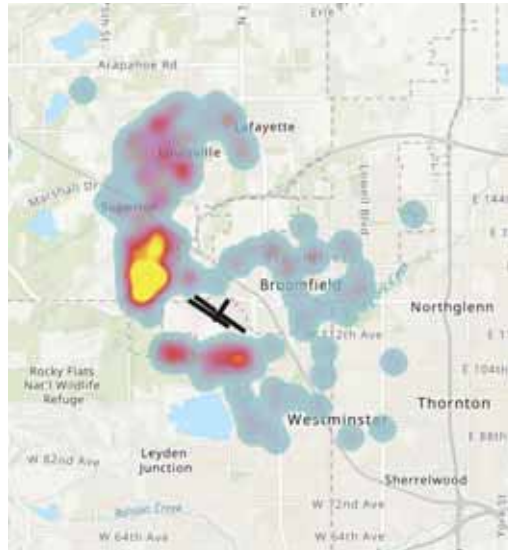
Noise Complaints – By Community

The majority of submissions consistently originate in Superior and primarily, the Rock Creek Community which is overflowed by closed-traffic operations and touch-and-goes.



Complaints by Location (2019)

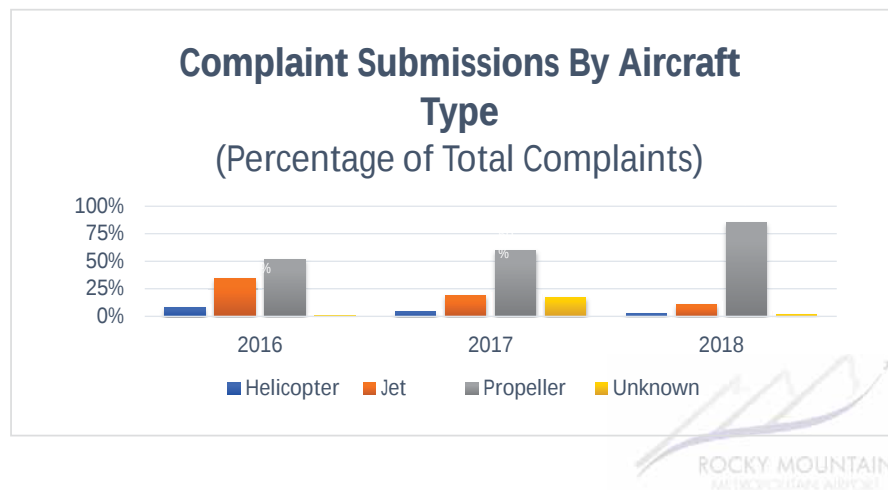
- The majority of complaints (year over year) originate in locations adjacent to runway ends. (Portions of Superior and Westminster)
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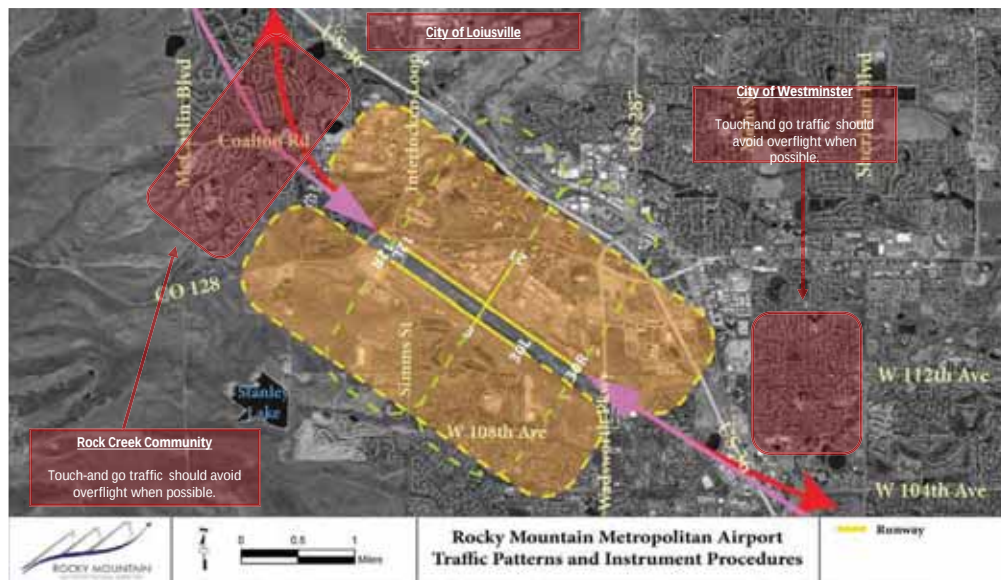
Complaints by Aircraft Type

*The majority of noise complaints are attributed to propeller operations.
Most often, flight training and touch-and-go operations.*



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Airport Traffic Patterns



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Noise Sensitive Areas



50

Overview of the RMMA Fly Quiet Program



Fly Quiet Program - Overview

- RMMA is surrounded by residential communities. As operations at RMMA have increased over the past few years, aircraft overflights and noise are a growing concern for residents.
- The RMMA Fly Quiet Program includes recommended procedures and practices to help minimize the negative impacts of aircraft operations on surrounding communities.

Note: The RMMA Fly Quiet Program includes recommended procedures and practices intended to reduce aircraft noise impacts in surrounding communities. Program recommendations are not intended to supersede the responsibility of the pilot-in-command for compliance with all applicable Federal Aviation Regulations, air traffic control instructions, and aircraft operating parameters included in the Aircraft Operations Manual.

Fly Quiet Program – Recommended Practices

On take-off, climb out using best angle of climb (V_x).

This enables the aircraft to climb as high as possible before leaving the airport perimeter and reduce noise impacts.

Reduce RPM when possible.

Lower propeller speeds produce less noise.

Fly standard or higher glide path. Remain at or above the VASI.

Shallow approaches increase noise exposure to neighbors below.

Overfly major road corridors and/or open space when able.

When possible, avoid overflight of residential neighborhoods.



Fly Quiet Program – Recommended Practices

Runway 30R is designated the primary, calm-wind runway

Westerly prevailing winds favor 30 the majority of the time.

No intersection departures

Using the full length of the runway is both safer and helps gain more altitude before leaving the airport perimeter.

Maintain pattern altitude of 6,500' for single engine aircraft and 7,000' for twins/turboprops/jets

Engine maintenance run-ups are prohibited between 10:00 p.m. and 6:00 a.m. except in an emergency

RMMA Flight Schools discourage departures after 10:00 PM

This is a voluntary effort to reduce nighttime noise.



Industry Recommendations



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Cessna Aircraft

Increased emphasis on improving quality of our environment requires renewed effort on the part of all pilots to minimize the effect of airplane noise on the public.

We, as pilots, can demonstrate our concern for the environmental improvement, by application of the following suggested procedures, and thereby tend to build public support for aviation:

- *When able, pilots operating under VFR conditions over recreational and park areas, and other noise-sensitive areas should make every effort to fly not less than 2000 feet above the surface, conditions permitting.*
- *During departure from or on approach to an airport, climb after take-off and descent for landing should be made so as to avoid prolonged flight at low altitude near noise-sensitive areas.*



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NBAA Noise Abatement Program

- Recognizing the importance of helping airports remain good neighbors, the National Aviation Business Association created their noise abatement program in 1967.
- Encouraging aircraft operators to understand the impacts aviation can have on communities and the impact community opposition can have on aviation.
- Recommendations for flight crews include:
 - o Be aware of the destination airports' noise abatement programs
 - o Utilize their company's recommended departure/arrival profiles or those recommended by the aircraft manufacturer
 - o When airport or aircraft-specific procedures are unavailable, NBAA provides recommended noise abatement procedures suitable for any aircraft type and airport operating environment.

ROCKY MOUNTAIN
METROPOLITAN AIRPORT

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AOPA Noise Awareness Steps

- Flying between 10 p.m. and 6 a.m. should be avoided whenever possible.
- If practical, avoid noise-sensitive areas. Make every effort to fly at or above 2,000 feet over such areas when overflight cannot be avoided.
- Fly a tight landing pattern to keep noise as close to the airport as possible. Practice descent to the runway at low power settings and with as few power changes as possible.
- Consider using a reduced power setting if flight must be low because of cloud cover or overlying controlled airspace or when approaching the airport of destination. Propellers generate more noise than engines; flying with the lowest practical RPM setting will reduce aircraft noise substantially.
- On takeoff, gain altitude as quickly as possible without compromising safety. Begin takeoffs at the start of a runway, not at an intersection.
- Use the PAPI. This will indicate a safe glide path and allow a smooth, quiet descent to the runway.
- Familiarize yourself and comply with airport noise abatement procedures.

ROCKY MOUNTAIN
METROPOLITAN AIRPORT

58

Other Recommendations and Best Practices

- Familiarize yourself with the aircraft-specific noise abatement procedures published by the aircraft manufacturer. These are typically included in the Pilot Operating Handbook.
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59

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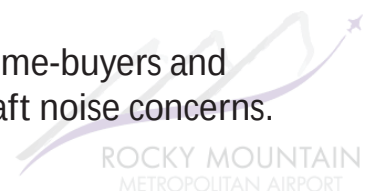
61

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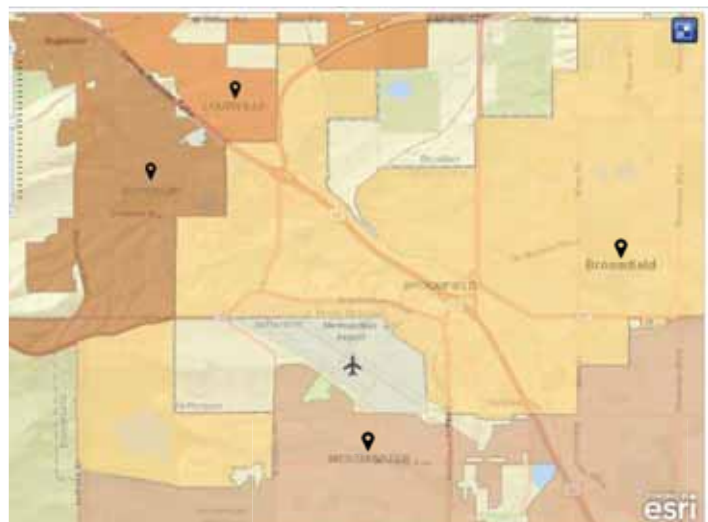


COMMUNITY

General Public

Location

- RMMA is located on the northern boundary of Jefferson County
- RMMA is surrounded by cities and towns with noise-sensitive/residential areas including:
 - o Broomfield to the north & east
 - o Superior and Louisville to the northwest
 - o Westminster to the south



History, Governance, and Role

- The airport opened in 1960.
- Owned and operated by Jefferson County.
 - Jefferson County is governed by a Board of County Commissioners which provides strategic direction to the airport.
 - An Airport Advisory Board provides input to the Commission and airport management.
- Originally named Jefferson County Airport. Name changed in 2006 to Rocky Mountain Metropolitan Airport (RMMA) reflecting the larger role in supporting the metro region.
- Officially, RMMA is classified as a “Reliever Airport”
 - As a reliever airport, RMMA’s role within the National Airspace System is to relieve congestion at Denver International by providing access for general aviation.
- RMMA provides local access to the National Airspace System. This includes flight training, business aviation, emergency services, and staging for forest firefighting operations.



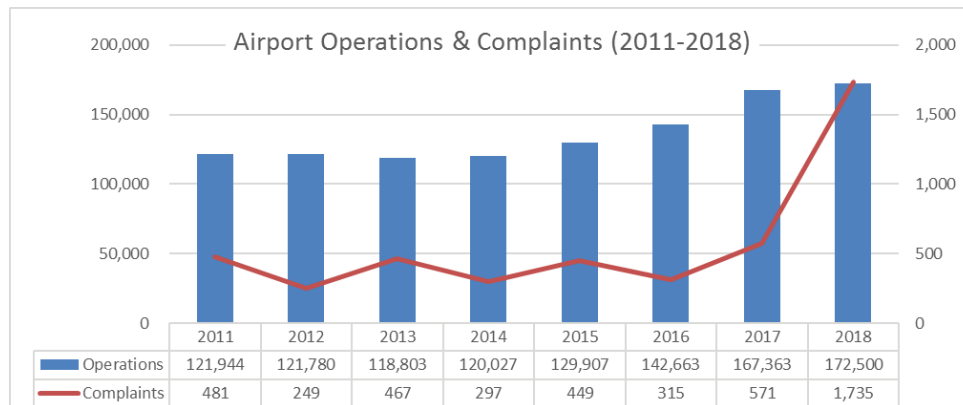
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Airport Operations and Noise Complaints



68

Noise Complaints



Consistent growth in both aircraft operations and noise complaints.

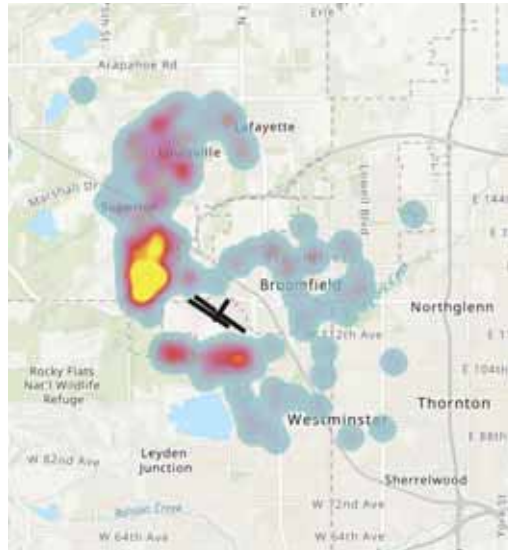
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71

What Happens If I Call with a Concern or Complaint?

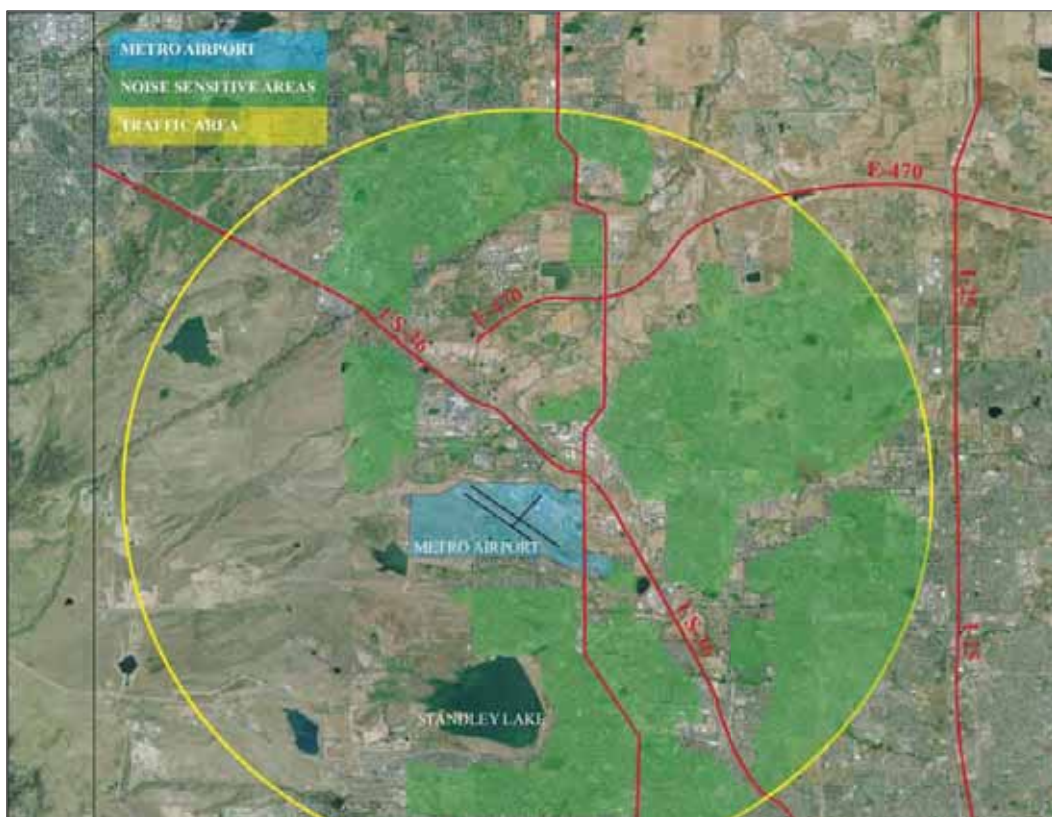
1. Noise complaint/question/concern is submitted.
2. Submission is reviewed by staff.
3. All submissions are recorded in complaint database.
4. All submissions are investigated.
5. If the investigation results in identification of a violation of FAA regulations or deviation from RMMA voluntary noise abatement program recommendations, the aircraft operator (or airport tenant/flight school) may be notified.
6. If requested, a response is provided.



Note: Complaints with incomplete information, profanity, harassment, etc., are not logged.

Operations and Airspace

Noise Sensitive Areas



Congested Airspace

- RMMA is located 20 miles west of Denver International Airport.
- DEN's airspace lies east of RMMA and above RMMA, limiting the flexibility air traffic controllers have when managing the airspace around RMMA
- There is also terrain to the west, which further limits use of the airspace.
- This results in most traffic approaching from and departing to the north or south.



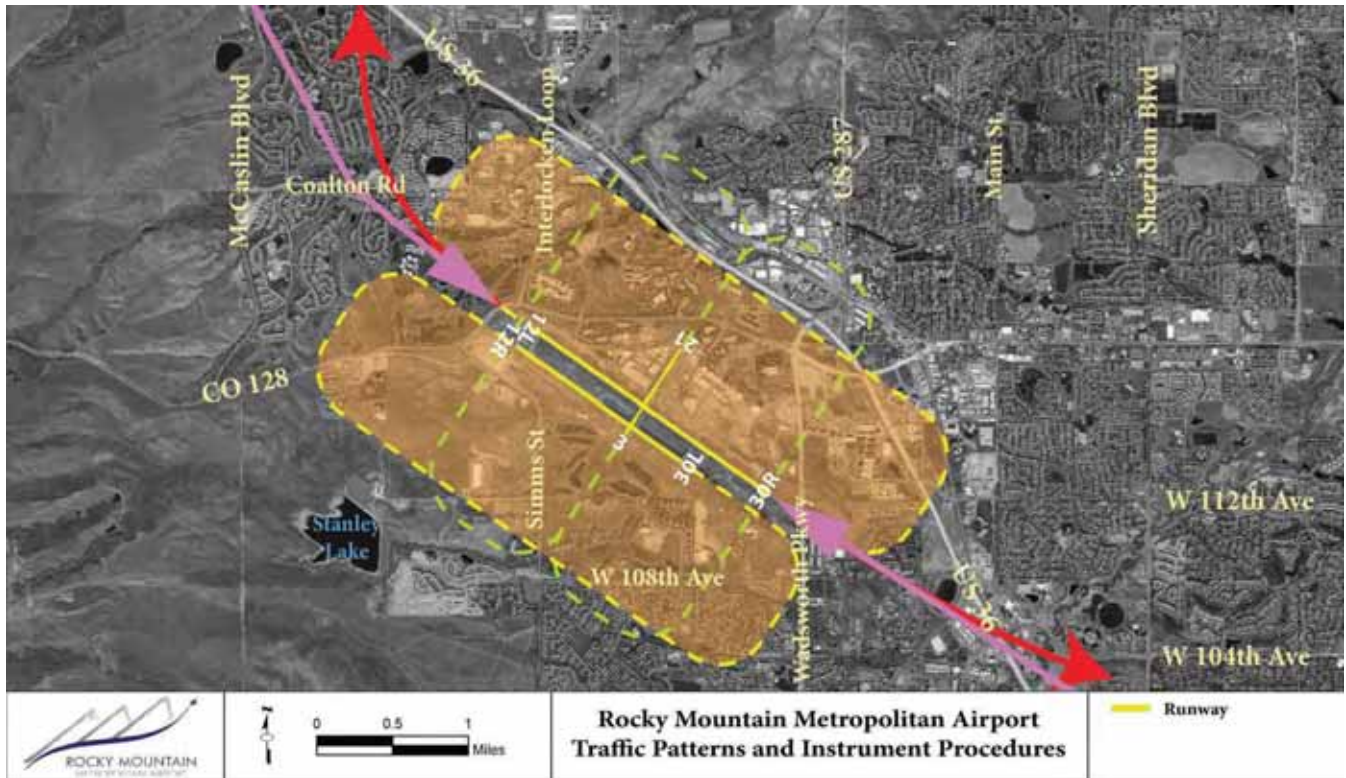
Airport Operations 101



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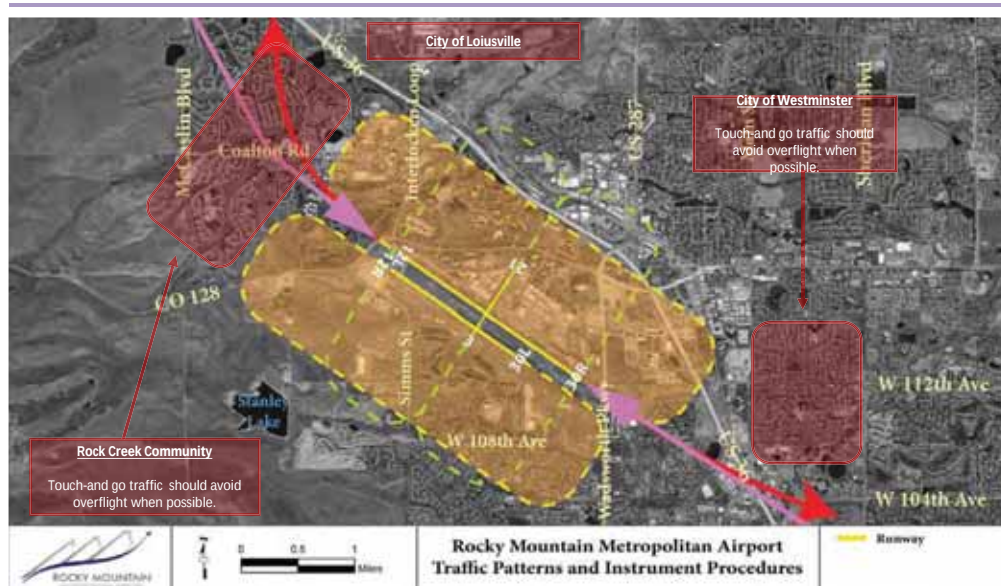
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Airport Traffic Patterns



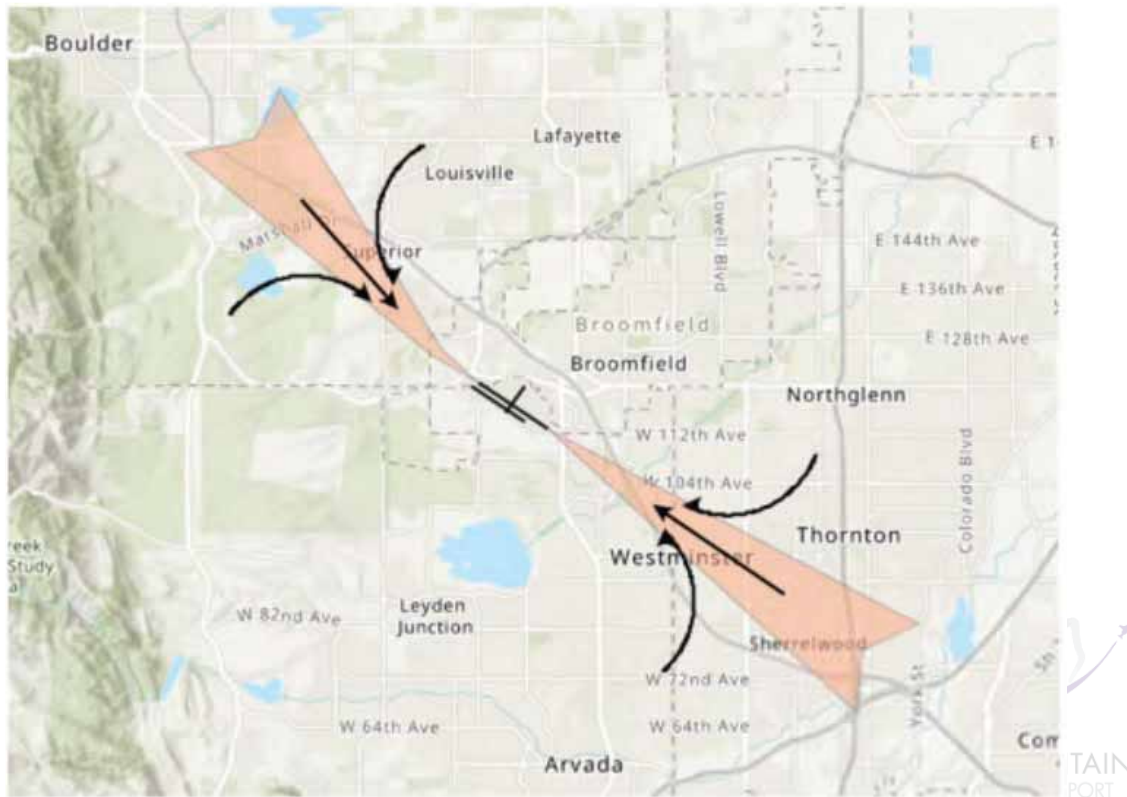
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Airport Traffic Patterns



80

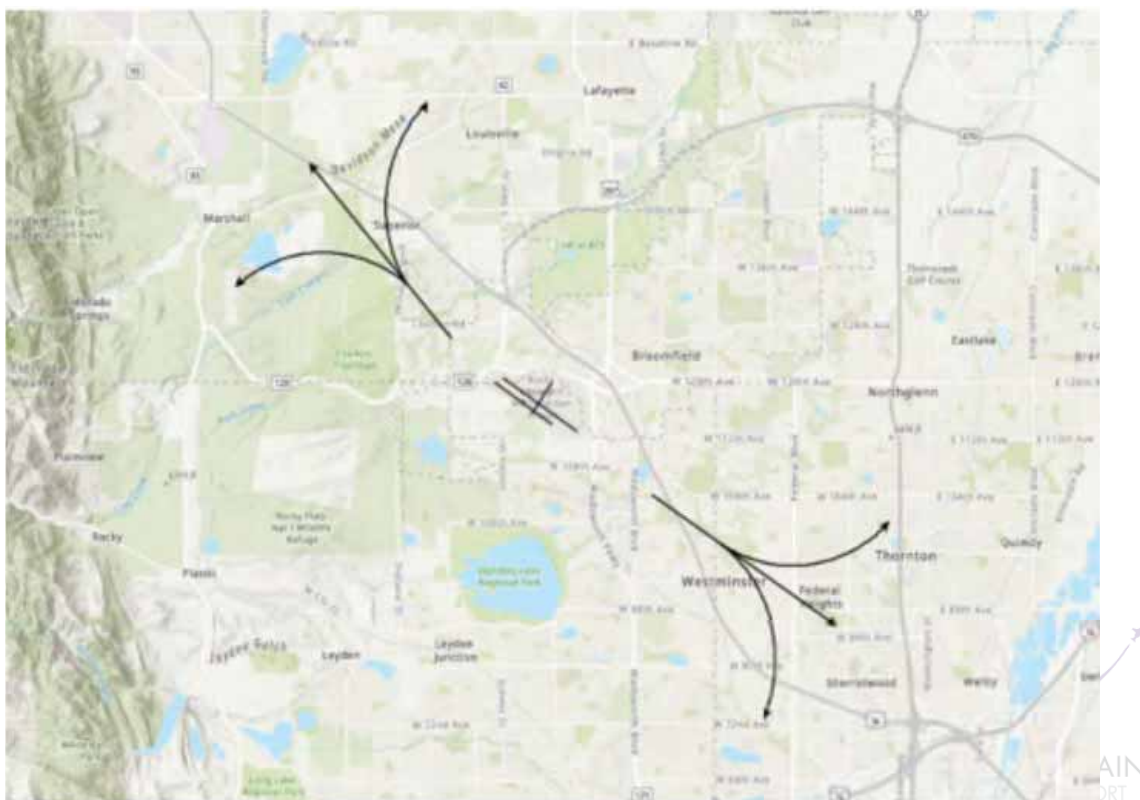
Generalized VFR Approach Paths



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81

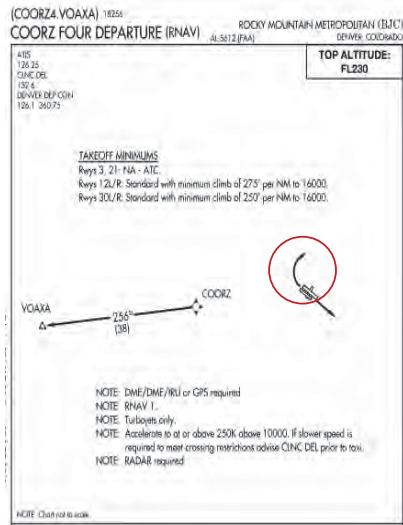
Generalized VFR Departure Paths



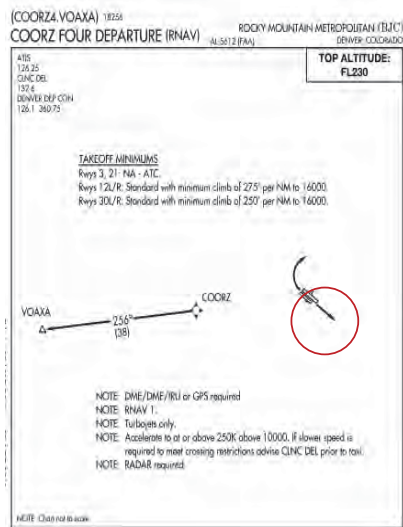
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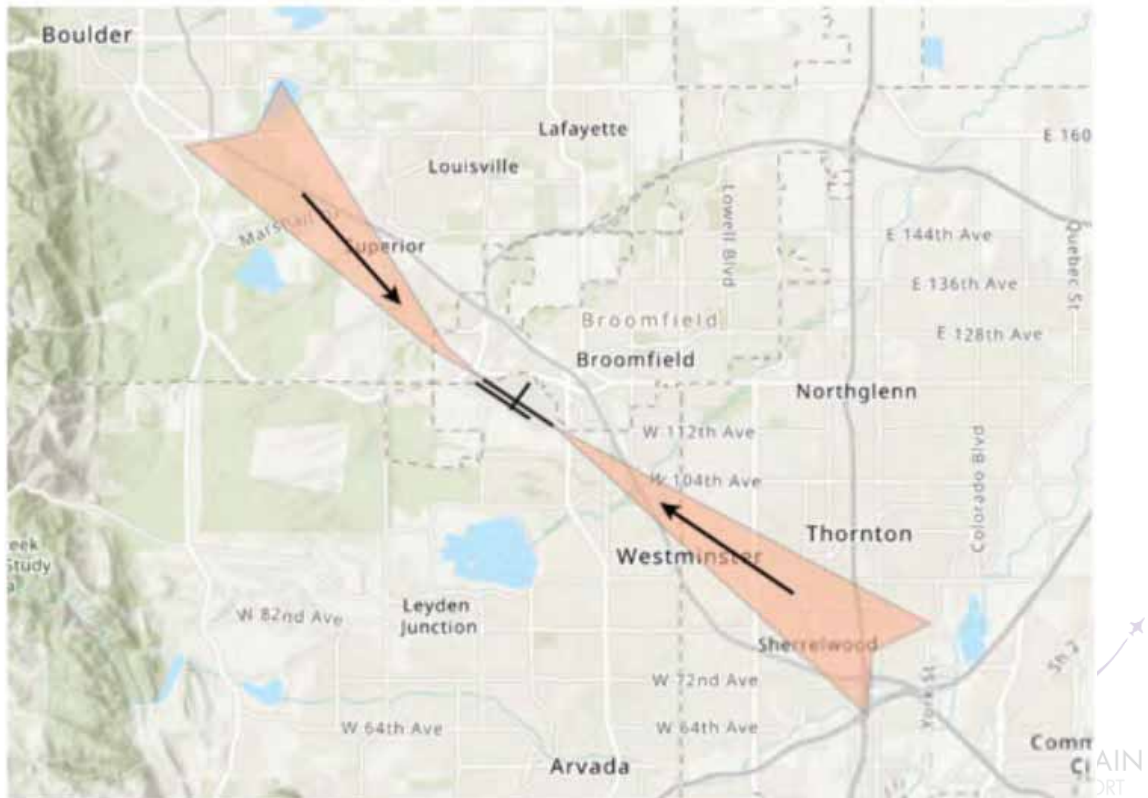
Standard Instrument Departures – 30L/R



Standard Instrument Departures – 12L/R



Generalized IFR Approach Paths



85

Generalized IFR Departure Paths



86

Typical Routes to/from the North Practice Area



Airport Traffic Patterns



North-West Flow



South-East West Flow

- Airport traffic patterns are standardized and consistent at airports nationwide
- Operations outside the standard pattern require air traffic control authorization
- Traffic patterns may be tighter/closer-in when operational conditions allow

Predominant Aircraft Types at RMMA

Single Engine (Propeller)



Multi-Engine (Propeller)



Jet



Photos above depict sample aircraft from each category. Source: Cessna Aircraft



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Roles, Responsibilities, and Authority



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Our Role

“Airports want to work with their aircraft operators and their communities to provide a safe and efficient airport environment while minimizing the impact of aircraft noise.”

- Passur Aerospace, Inc.



Photo Credit: Reddit/Mitch Tobin

Roles and Responsibilities (Per Federal Policy)

The Aviation Noise Abatement Policy of 1976 summarized the responsibilities of various stakeholders related to aircraft noise. The following slides are adapted from the policy.

- *Federal Government*
- *Airport Operators*
- *State & Local Governments and Planning Agencies*
- *Airlines and Aircraft Operators*
- *Air Travelers and Shippers*
- *Residents and Prospective Residents*



Roles and Responsibilities – *Federal Government*

The *Federal Government* has the authority and responsibility to....

- Controls aircraft noise exposure through establishing maximum allowable noise levels for aircraft operated in the United States
- Supports research into noise reduction and noise abatement technologies.
- Management of the air traffic control system and navigable airspace in ways that minimize noise impact on residential areas consistent with the highest standards of safety.
- Establishment of noise abatement flight procedures
- Provides funding and technical assistance to airport operators for compatibility planning, noise abatement, and noise mitigation.

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Roles and Responsibilities – *Airport Operators*

Airport Operators are primarily responsible for...

- Planning and implementing actions designed to reduce the effect of noise on residents of the surrounding area.
- Airport actions can include:
 - o Optimal site location and improvements in airport design
 - o Noise abatement ground procedures¹
 - o Land acquisition
 - o Restrictions on airport² use that do not unjustly discriminate against any user, impede the federal interest in safety and management of the air navigation system, or unreasonably interfere with interstate or foreign commerce.

¹ Airport operators have no authority over airspace or aircraft in-flight

² Airports' authority to impose access restrictions was severely limited by the Aircraft Noise and Capacity Act (1990)

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Roles and Responsibilities – *State & Local Governments and Planning Agencies*

State & Local Governments and Planning Agencies must provide for ...

Land use planning and development, zoning, and housing regulation that will limit the uses of land near airports to purposes compatible with airport operations.

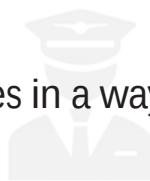


95

Roles and Responsibilities – *Air Carriers and Aircraft Operators*

The *Air Carriers and Aircraft Operators* are responsible for ...

- Retirement, replacement, or retrofit of older jets that do not meet federal noise level standards.
- Scheduling and flying airplanes in a way that minimizes the impact of noise on people.



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Roles and Responsibilities – *Air Travelers and Shippers*

Air Travelers and Shippers ...

Should bear the cost of noise reduction, consistent with established federal economic and environmental policy that the adverse environmental consequences of a service or product should be reflected in its price.



97

Roles and Responsibilities - *Residents and Prospective Residents*

Residents and Prospective Residents ...

- Should be aware of the potential effects of aircraft operations and noise in the community and the impact on their quality of life when choosing where to live.
- Should seek to understand the aircraft noise problem and what steps can be taken to minimize its effect on people.
- Individual and community responses to aircraft operations and noise vary. Some individuals may not be affected while others in the same area may feel significantly affected.



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RMMA Fly Quiet Program

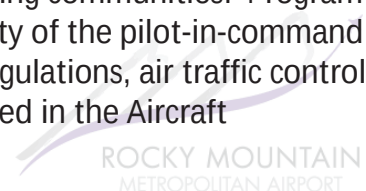


99

Fly Quiet Program - Overview

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Fly Quiet Program – Recommended Practices

On take-off, climb out using best angle of climb (Vx).

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Reduce RPM when possible.

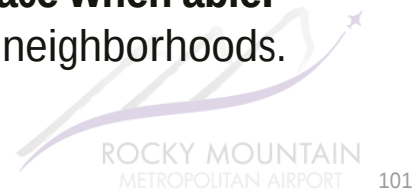
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103

How is Noise Program Information Disseminated?

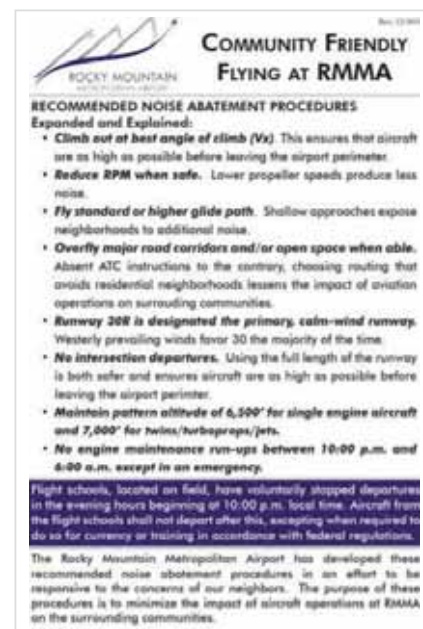
- ✓ Flight School Briefings
- ✓ Air Traffic Controller Briefings
- ✓ Airport Tenant Meetings
- ✓ Airfield Signage
- ✓ Brochures, Posters and Placards
- ✓ Airports Facility Directory
- ✓ Pilot Workshops and Briefings
- ✓ Noise Task Force Briefings
- ✓ Webinars



Airfield Signage



Airport Facilities Directory



Brochures, Posters, & Placards



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Local and Regional Collaboration



Collaboration with Local Partners (Industry)

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THANK YOU!



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ABCx2 Project Close Out Report The City of Louisville and The Town of Superior January 15, 2021

Introduction

The communities around Rocky Mountain Metropolitan Airport (RMMA) were experiencing increased impacts associated with aircraft overflights to and from the airport. The Town of Superior contacted ABCx2 requesting help addressing the growing noise impacts. In addition to reducing aircraft noise, from the Town’s perspective, a “successful outcome” required the opportunity for residents to feel “heard” and that the process of developing policies and procedures for noise reduction to be based directly on community input.

In 2018, ABCx2 initiated a 3-Phase Project to help the Town of Superior and the City of Louisville address the growing community concerns. The project phases included: 1) Baseline Assessment, 2) Strategy Development, and 3) Implementation and Monitoring.

Note: ABCx2 initiated work for the Town of Superior in November of 2018 and the City of Louisville joined the effort in early 2019.

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Phase II – Strategy Development.....	3
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Tasks Completed and Deliverables.....	6
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Phase III	6
Timeline	7
Attachments	9

ABCx2, LLC

Phase I – Baseline Assessment

Phase I began with identifying the critical local and regional stakeholders including impacted communities, neighborhoods, homeowner associations, etc., local government officials and staff, airport management and staff, flight schools and other airport tenants, and air traffic control personnel. Phase I included initial stakeholder engagement to ensure an understanding of stakeholders' interests, priorities, and constraints, as well as establishing working relationships with these key stakeholder groups.

Phase I also included an assessment of the baseline conditions including the airport facilities, airspace, traffic patterns, flight procedures, fleet mix, existing noise abatement programs, and land-use/zoning around the airport and in proximity to predominant flight corridors.

At the completion of the baseline assessment, a summary report was provided, detailing the findings across the range of issues covered and provided the foundation for the Strategy Development conducted in Phase II of the project.

Stakeholder engagement was an important part of Phase I. A number of public meetings and workshops were conducted in an effort to collect community input through all phases of the project. Public outreach was also important to keep residents informed of the project progress. Public engagement in Phase I included public briefings to the Superior Board of Trustees during which public input was submitted to the Board. The project team also worked one-on-one with a number of residents while on-site, as well as through email and telecons.

Community engagement was a priority for Phase I and as important community engagement was to this effort, most strategies identified require the support of industry partners, particularly the Airport, aircraft operators, and FAA Air Traffic Control. Collaboration between the Town of Superior/City of Louisville and the Airport were minimal at the start of this project and establishing and encouraging ongoing collaboration was an important goal of this effort. Meetings with the Airport and airport tenants were conducted to introduce the ABCx2 team and the project. Based on ABCx2's recommendation, a Noise Task Force was developed to enable discussions among all industry stakeholders including RMMA management and staff, flight schools, fixed based operators and other airport tenants, and air traffic control. While developed to support this effort and collaboration among industry stakeholders, the Task Force continues to meet, exploring ways to expand and improve the RMMA Noise Abatement Program.

ABCx2, LLC

Phase II – Strategy Development

Phase II of this project focused on development of strategies to address the core issues identified during Phase I. Phase II community engagement efforts included development of two community surveys, one hosted by the Town of Superior and a second hosted by the City of Louisville. These surveys were intended to solicit community input regarding aircraft noise impacts and supplemented the data collected through the process of the baseline assessment. In addition to the survey, a community workshop was held at Louisville City Hall in July 2019. After a project briefing by the ABCx2 team, a question-and-answer session followed, allowing residents to ask questions, make comments, and provide recommendations.

Community input from the public comments and the online surveys were used during the work done in the Phase II – Strategy Development. Additionally, each of the community comments was responded to by the ABCx2 team. At the completion of Phase II, the consulting team submitted summary report with over 50 strategy recommendations arranged into five (5) categories:

- Flight Procedures, Practices, and Policies
- Community Outreach and Engagement
- Industry Outreach and Engagement
- Land-Use Planning and Development
- Regional Collaboration

Several of the recommendations identified in the Flight Procedures, Practices, and Policies that were discussed by the RMMA Task Force and implemented. These included encouraging best angle of climb when departing, avoiding overflight of residential communities, flying over major roadways or open space and when residential overflight cannot be avoided, and flying as high as possible to minimize noise impacts on the ground. Additionally, based on community concerns related to nighttime noise associated with flight training activity in particular, RMMA flight schools have agreed to discourage students from departing RMMA after 10:00 PM.

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Phase III – Implementation and Monitoring

Phase III is nearing completion. Under the direction of Superior and Louisville, scoping for Phase III focused on development of an Engagement Plan and materials to enable engagement of industry stakeholders and community stakeholders in an effort to implement the remaining recommendations.

Briefing materials were developed in the form of PowerPoint slide decks with content that can be used for in-person briefings and workshops, virtual briefings, and webinars, adapted for the web, or used in print materials. Six distinct audiences were identified, each with their own materials. Industry materials include 1) Pilots, Flight Schools and Airport Tenants and; 2) Air Traffic Control. Community-focused materials include: 1) General Public; 2) Impacted Communities and Homeowners' Associations; 3) Local Governments and Land-Use Authorities, and; 4) Prospective Homebuyers and Renters.

Industry engagement will be led by the Airport. Briefing materials are intended for use in engaging RMMA pilots, flight schools, local and itinerant pilots, aviation associations including Aircraft Owners and Pilots Association (AOPA), National Business Aviation Association (NBAA), and Colorado Aviation Business Association (CABA). Community engagement efforts will be shared by both the Airport and local municipalities.

The engagement materials were reviewed by Superior and Louisville and Airport staff. Comments and recommended revisions were addressed, and the materials were finalized. The last step in this task will be a final meeting with the Airport to discuss deployment and use of the materials.

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Highlighted Outcomes from Phase I – III

- The Airport established the RMMA Noise Task Force for ongoing identification, evaluation, and implementation of strategies to reduce aircraft noise impacts.
- Expanded pilot education and outreach efforts.
- Airport hosting quarterly meetings with flight schools, air traffic control, and industry task force to discuss/address noise issues.
- Voluntary nighttime curfew has been adopted by RMMA Flight Schools
- Establishment of Airport Noise Roundtable
- Expanded noise abatement program incorporating operational measures recommended by ABCx2 including:
 - Noise abatement signage on airfield encouraging pilots to:
 - Avoid disturbing surrounding residential areas if practical by:
 - Climbing initially at V_x (Best Angle of Climb)
 - Reducing RPM when safe
 - Flying standard of higher glide path
 - Overflying major road corridors and/or open space when able.
 - Publishing a Noise Abatement Brochure as a handout to pilots (See Attached)

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Tasks Completed and Deliverables

Phase I

- Completed baseline assessment
- Identified core issues
 - Flight training operations
 - Closed traffic operations
 - Operations between the North Practice Area and RMMA
 - Lack of collaboration between Airport and Superior/Louisville
- Clarified history of Rock Creek development, aviation easements, etc.
- Initial Public Workshop

Phase II

- Based on Baseline Assessment, identified portfolio of strategies to address core issues
- Community Surveys
 - Louisville – Community Survey
 - Superior – Community Survey
- Louisville Community Feedback Workshop
- Strategy Prioritization Workshop
 - Louisville and Superior Staff
 - Liaisons from Superior Board of Trustees and Louisville City Council

Phase III

- Prioritization of Strategies
- Airport Noise Storyboard (Community Engagement)
- Encouraged/Facilitated engagement between Airport Staff, Town/City Staff, and Elected Officials
- Collaboration with pilots, flight schools, airport, to encourage pilot and flight school engagement
- Development of Outreach and Engagement Programs for Industry and Public/Community
- Voluntary restraint from flying overnight
- Engaged AOPA, NBAA and CABA

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Timeline

- Project Kick-Off Telcon (Superior Staff) – 11/2/2018
- Respond to Superior Q&A – 11/7/18
- Review of Airport RMMA Noise Reports 2012-2016 - 11/8/18
- Review of Superior Resident Comments from August 2018 – 11/15/18
- Review of RMMA Rules & Regulations – November 2018
- Review of Airport Master Plan – November 2018
- Initial Review of RMMA Fly Quiet Program – 11/19/18
- TARGETS - Initial Notional SID RWY 30R – 11/23/18
- Review of RMMA Statistics – 11/25/18
- Public Meeting: Superior Board of Trustee Briefing 11/27/18
- Superior Phase I Work Plan – October 2018-January 2019
- Avigation Agreement Research – February 2019
- Review of Sustainable Aviation Resource Guide – 2/13/19
- First Meeting with Airport and Flight Schools 2/19/19
- Superior/Louisville Phase IA Work Plan – February-March 2019
- TARGETS – Notional SIDs for RMMA 3/22/2019
- Review of OPSNET Traffic Count Data for 2009-2018 – March-April 2019
- Development of FAQs – March-April 2019
- Review of Flight Tracks – 4/16/19
- Q&A for RMMA Tower Manager – 4/23/19
- Baseline Report – 5/11/19
- Public Meeting: Superior Board of Trustees Meeting – 5/13/19
- Initial Engagement Plan – 5/31/19
- Project Status Reports – April-July 2019
- Louisville Community Survey – June-July 2019
- Public Meeting: Superior Board of Trustee Meeting – 7/22/19
- Louisville Community Feedback Workshop – 7/24/19
- ABCx2 Notional VFR Routs to/from Practice Areas 8/8/19
- Superior – Community Survey – August-September 2019
- Final Report – Strategy Recommendations – 9/27/2019
- Final Report – Survey Comments and Responses – 9/27/2019
- Public Meeting: Joint Study Session – Superior/Louisville/ABCx2 – 9/30/19
- Letter to Superior/Louisville – Comments from Joint Study Session – 10/14/19
- Strategy Development – November 2019

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- Aircraft Noise Reduction Act – Airport List – Task Order – 1/24/20
- Public Meeting: Strategy Prioritization Workshop 5/4/20
- RMMA Telcon 6/23/20
- Telcon (Zoom) with Superior/Trustee Ryan – 7/9/20
- Landing Fees Research Task – 7/14/20
- Telecon (Zoom) with Airport Liaisons – 7/17/20
- ABCx2 Progress Report 7/20/20
- Prioritized Strategy Matrix Informal Elements – Milestones 7/20/20
- Zoom with Louisville Council and Airport 7/30/20
- Project Budget Review 8/11/20
- Noise Task Force Meeting 8/28/20
- ERSI Story Map – June-October 2020
- Work Plan Updates – July-October 2020
- Project Planning Playbook - 11/2/20
- Development of Engagement Materials/Slides – October-December 2020
- Progress Reports – July-November 2020
- Virtual Meeting (Zoom) – Review of Engagement Materials/Slides 12/21/20
- RMMA Round Table – First Meeting – January 2021
- Project Close-Out Report – January 2021

ABCx2, LLC





Attachments

ABCx2, LLC

info@abcx2.com



162 Brittany Lane, Senoia, GA 30276



www.abcx2.com



COMMUNITY FRIENDLY FLYING AT RMMA

RECOMMENDED NOISE ABATEMENT PROCEDURES

Expanded and Explained:

- **Climb out at best angle of climb (V_x).** This ensures that aircraft are as high as possible before leaving the airport perimeter.
- **Reduce RPM when safe.** Lower propeller speeds produce less noise.
- **Fly standard or higher glide path.** Shallow approaches expose neighborhoods to additional noise.
- **Overfly major road corridors and/or open space when able.** Absent ATC instructions to the contrary, choosing routing that avoids residential neighborhoods lessens the impact of aviation operations on surrounding communities.
- **Runway 30R is designated the primary, calm-wind runway.** Westerly prevailing winds favor 30 the majority of the time.
- **No intersection departures.** Using the full length of the runway is both safer and ensures aircraft are as high as possible before leaving the airport perimeter.
- **Maintain pattern altitude of 6,500' for single engine aircraft and 7,000' for twins/turboprops/jets.**
- **No engine maintenance run-ups between 10:00 p.m. and 6:00 a.m. except in an emergency.**

Flight schools, located on field, have voluntarily stopped departures in the evening hours beginning at 10:00 p.m. local time. Aircraft from the flight schools shall not depart after this, excepting when required to do so for currency or training in accordance with federal regulations.

The Rocky Mountain Metropolitan Airport has developed these recommended noise abatement procedures in an effort to be responsive to the concerns of our neighbors. The purpose of these procedures is to minimize the impact of aircraft operations at RMMA on the surrounding communities.

The Noise Abatement Checklist

Avoid disturbing/overflying residential areas if practical by:

- Climbing initially at V_x
- Reducing RPM when safe
- Flying standard or higher glide path
- Overflying major road corridors and/or open space when able

Your cooperation with noise abatement, when able, is appreciated.

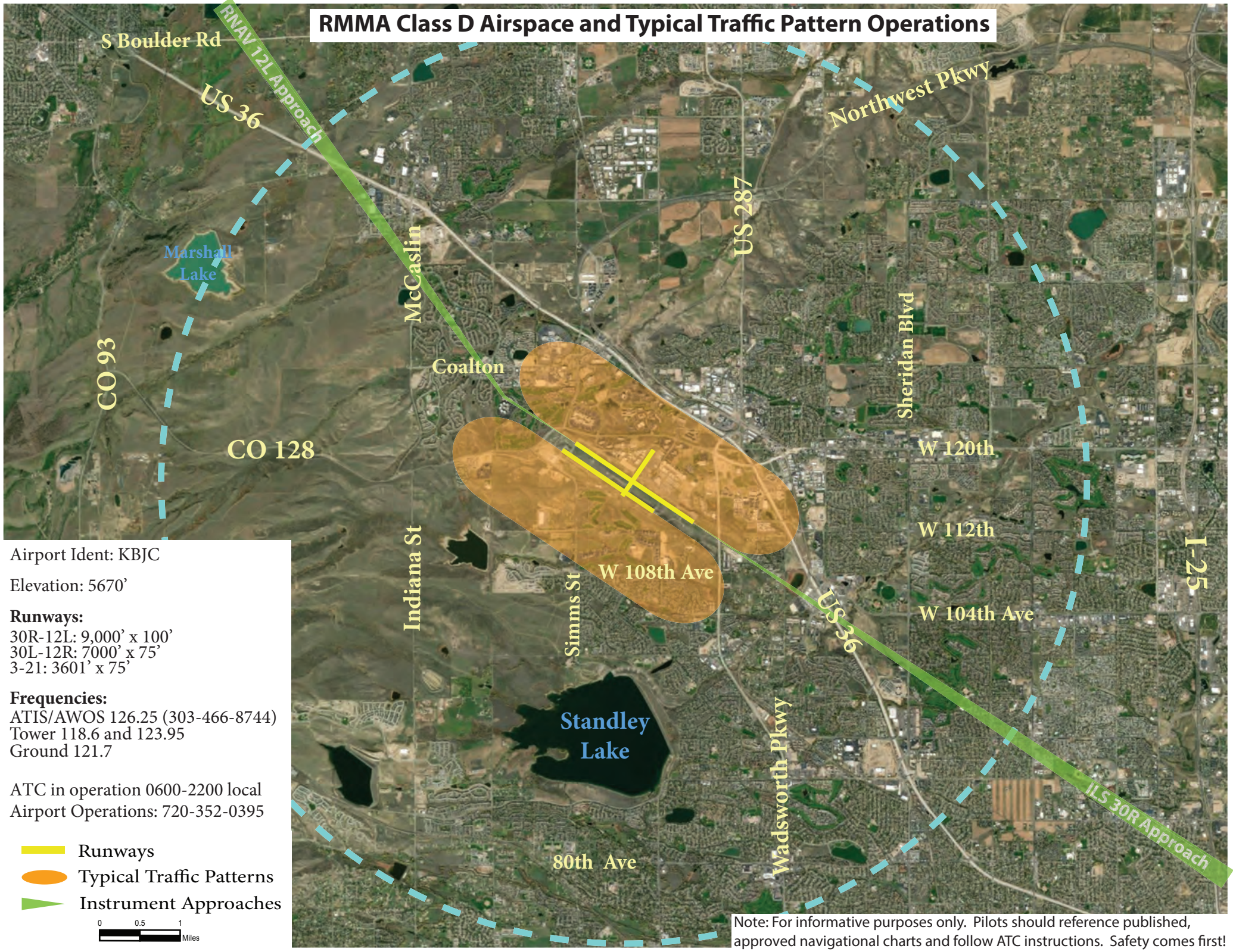
Note: The above procedures are recommended for arrivals and departures at RMMA. They are not intended to supersede the responsibility of the pilot for compliance with FARs, ATC clearances and operating parameters of the Aircraft Operations Manual.

ALL recommended procedures are at the pilot's discretion, consistent with safety and ATC instructions. **SAFETY ALWAYS COMES FIRST!**



**ROCKY MOUNTAIN
METROPOLITAN AIRPORT**
11755 Airport Way, Broomfield, CO 80021
303-271-4850
www.flyRMMA.com

RMMA Class D Airspace and Typical Traffic Pattern Operations



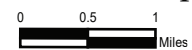
Airport Ident: KBJC
Elevation: 5670'

Runways:
30R-12L: 9,000' x 100'
30L-12R: 7000' x 75'
3-21: 3601' x 75'

Frequencies:
ATIS/AWOS 126.25 (303-466-8744)
Tower 118.6 and 123.95
Ground 121.7

ATC in operation 0600-2200 local
Airport Operations: 720-352-0395

- Runways
- Typical Traffic Patterns
- Instrument Approaches



Note: For informative purposes only. Pilots should reference published, approved navigational charts and follow ATC instructions. Safety comes first!

November 2018

Friendly Flying

- Please avoid flying over noise-sensitive areas when practical.
- Engine maintenance run-ups are not allowed between 10 p.m. and 6 a.m., except in an emergency.
- Please fly high and tight patterns, not low approaches. Follow the PAPI
- Maintain pattern altitude of 6,500 feet for singles and 7,000 feet for twins, jets, and helicopters.
- No intersection takeoffs.
- Runway 30R is designated the “calm wind runway” under the recommended noise abatement procedures

November 2020

- **Climb out at best angle of climb (V_x).** This ensures that aircraft are as high as possible before leaving the airport perimeter.
- **Reduce RPM when safe.** Lower propeller speeds produce less noise.
- **Fly standard or higher glide path.** Shallow approaches expose neighborhoods to additional noise.
- **Overfly major road corridors and/or open space when able.** Absent ATC instructions to the contrary, choosing routing that avoids residential neighborhoods lessens the impact of aviation operations on surrounding communities.
- **Runway 30R is designated the primary, calm-wind runway.** Westerly prevailing winds favor 30 the majority of the time.
- **No intersection departures.** Using the full length of the runway is both safer and ensures aircraft are as high as possible before leaving the airport perimeter.
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December 7, 2020

Mr. Ben Miller
Senior Planner
Rocky Mountain Metropolitan Airport
11755 Airport Way
Broomfield, CO 80021

Dear Mr. Miller:

Primacy Strategy Group ("PSG") is pleased to provide the enclosed proposal for Airport Roundtable Management Services for the Rocky Mountain Metropolitan Airport. PSG is a multi-state advocacy, communications, and coalition-building firm with offices in St. Paul, MN, Bismarck, ND and Washington DC.

In addition to our seasoned management professionals, through our work in aviation policy, PSG has built unique partnerships with aviation professionals included in this proposal who have deep and direct experience managing airport noise roundtables. Our model also allows us able to call upon trusted air traffic subject matter experts should the need arise. This unique combination of expertise and background sets our team apart and allows us to call upon our decades of experience in multiple areas that suit your specific needs. PSG has experience staffing board meetings, fundraising, serving as adjunct staff and providing supplemental bandwidth to augment internal staff efforts. We are also adept at providing public affairs and strategic communications services, assisting with association publications and digital content, as well planning meetings, conferences, and events.

Thank you again for the opportunity to submit our proposal. We look forward to speaking with you further.

Warmly,

Ryan C. Kelly

President
Primacy Strategy Group

Rebecca J. Kanninen

Senior Vice President
Primacy Strategy Group

Emily J. Tranter

Lead Federal Lobbyist
Primacy Strategy Group

BISMARCK

1815 Schafer Street, Suite 200
Bismarck, ND 58501
Office: (701) 793-7134

WASHINGTON D.C.

415 Second Street N.E., Suite 210
Washington, D.C. 20002-4900
Office: (202) 544-9840

SAINT PAUL

660 Transfer Road
Saint Paul, MN 55114
Office: (651) 340-4848

ABOUT PRIMACY STRATEGY GROUP

Primacy Strategy Group is a full-service government relations and public affairs firm. The PSG team offers a full spectrum of services for its clients which includes association management and coalition building, grassroots and grassroots mobilization, regulatory affairs expertise at the federal, state and local levels, as well as procurement services. PSG also provides clients with expanded public affairs and communications services, including strategic communications planning, media relations, social and digital media strategies, crisis communications, and reputation management. We have senior staff located in the Denver metropolitan area.

PROPOSED SERVICES

Airport/Community Roundtable Development, Management, and Facilitation

Our team members have extensive background in creating, managing, and facilitating airport/community roundtable forums as well as broader association management experience. We believe the ultimate goal of airport roundtables is to improve the quality of life of those affected by noise and overflight from airport and aircraft operations, via communication, cooperation, and education among all stakeholders.

Based on our understanding of your needs, we are well equipped to support the roundtable and provide

- 1-2 hour monthly meeting design and facilitation
- 1-2 hour monthly meeting documentation and post-planning

ADDITIONAL AVAILABLE SERVICES:

Based on our background and understanding of roundtable management, we would be available and have the expertise to provide the following additional services should they be needed:

Administration, Management, and Facilitation

- Manage Roundtable administrative tasks and meeting logistics;
- Prepare Roundtable annual budgets
- Prepare technical and administrative reports, memos, correspondence, emails, etc.
- Coordinate/prepare an annual Roundtable Work Program to guide Roundtable activities
- Prepare meeting agendas and summaries and all required public meeting notices
- Draft roundtable mission statement and a strategic plan
- Draft amendments to the roundtable bylaws and Memorandum of Understanding (MOU)
- Represent the Roundtable in meetings/interactions with FAA staff, airport staff, local elected officials, the public, and other interested persons and agencies
- Coordinate Roundtable technical issues and proposed noise mitigation actions with FAA staff, airport staff, and other agencies as necessary
- Develop/maintain an effective working relationship with FAA staff, airport staff, local elected officials, local city planning staff, the public and others, as needed
- Work with FAA staff, airport noise abatement staff, and the airlines to establish the following operational procedures to help minimize community noise impacts from airport/aircraft operations:

- Member and associate member recruitment, management, and communications
- Organizational financial management, tax filings, compliance, invoicing, and collections
- Strategic planning for advocacy and legislative efforts
- Vendor management
- Coalition creation & member recruitment
- Member mobilization
- Coalition funding structures
- Staff and vendor management
- Coalition member presentations

OUR EXPERIENCE:

- Managed the activities of the **San Francisco International Airport/Community Roundtable**, regarding community noise issues related to aircraft operations at San Francisco International Airport;
 - Supervised support staff technical consultants; prepared consultant contracts/approved consultant invoices
 - Managed the organizational structure of the Roundtable, including preparation of bylaws and subsequent amendments, a comprehensive update of the Memorandum of Understanding and subsequent amendments, and membership structure/voting
 - Prepared an annual budget, an annual Work Program, a Strategic Plan, a Communications Program, and a Mission Statement
 - Prepared administrative and technical reports
 - Prepared staff reports/coordinated staff review with local agency planning staff
 - Applied for and administered state/federal grants to support Commission activities
 - Selected/managed consultants to prepare updated airport land use compatibility plans for the environs of all three public use airports in the county.
 - Coordinated activities with local elected officials and FAA, Airport, and local agency staff.
- Provided assistance to the **Centennial Airport Community Noise Roundtable (CACNR)** regarding it's organizational structure, funding, and operations.
 - Prepared a draft Memorandum of Understanding to create the Roundtable (a document similar to an Intergovernmental Agreement (IGA)).
 - Prepared a draft funding structure to support Roundtable operations.
 - Prepared a revised draft of the CACNR Bylaws; Note: the Bylaws are based on the San Francisco International Airport/Community Roundtable bylaws model.

OUR TEAM

Ryan C. Kelly



Ryan Kelly is a cofounder of the Primacy Strategy Group in addition to serving as the President and CEO. He also serves on the PSG Board of Governors and is the Principal of Synergetic Endeavors

Primacy Strategy Group is a 50/50 joint-venture between Lockridge Grindal Nauen P.L.L.P. (LGN), a Minnesota-based law firm with state and federal lobbying teams and Synergetic Endeavors, a St. Paul-based consulting firm specializing in grassroots advocacy, public relations, coalition building and association management.

Mr. Kelly is a skilled and experienced strategist delivering successful outcomes for clients at the congressional, state and local levels. He has managed legislative efforts on behalf of his clients including multi-state and national lobbying initiatives as well as state-based and national campaigns to recruit and mobilize grassroots and grasstops advocates.

Prior to founding Synergetic Endeavors in 2005, he honed his political skills through multiple campaigns, including serving as campaign manager for Randy Kelly, his father, during his successful bid to become Mayor of Saint Paul. Mr. Kelly later served as a key transition advisor and managed the political arm of the elder Kelly's mayoral administration.

Over the past decade, Mr. Kelly has also managed public relations efforts for numerous companies and organizations looking to enhance their strategic communications and message development efforts, including mid-sized businesses, large non-profit organizations, advocacy coalitions, and major national conventions. Mr. Kelly serves as a strategic advisor and business development consultant for multiple companies, assisting them in increasing their public profile, political footprint, and penetration rate with C-Suite decision makers and help drive new revenue for their business. Utilizing an extensive network in the corporate, political, and non-profit sectors, Mr. Kelly also brings a tried and tested track record of results in fundraising. From the non-profit sector to the political arena, his fundraising background is rich with projects that produced record-breaking results. He and his team are considered relentless fundraisers, raising millions of dollars from a wide network of supporters who at times would have seemed unlikely advocates and contributors.

Emily J. Tranter



Emily Tranter is the lead lobbyist with Primacy Strategy Group's Federal Relations and Regulatory Affairs team. She joined the firm's Federal Relations Group in 2007 and has focused on representing clients in the areas of infrastructure/transportation development, aviation, environmental policy, energy research, and public safety/criminal justice. Ms. Tranter is frequently called on to advise and brief Members of Congress and committees on critical public policy initiatives and to provide analysis into complicated issues impacting airport development projects. She serves as primary liaison to federal policy makers on a number of high priority infrastructure development programs, including the multibillion-dollar FAA remake of U.S. Airspace – the "NextGen" program. Ms. Tranter also serves as

the Executive Director of the National Organization to Insure a Sound-controlled Environment, the only national non-profit dedicated to advocacy around community noise impacts.

Ms. Tranter offers the firm's public sector and non-profit clients critical insight into the often confusing and highly complicated congressional appropriations process – from concept development to congressional testimony and legislative advocacy. She is particularly helpful to those clients interested in securing special federal designations and funding for high priority local initiatives. Ms. Tranter focuses on the annual congressional budget/appropriations process, identifies grant opportunities, and supports clients' interests in the transportation, infrastructure, and economic development arena.

Prior to joining the firm, Ms. Tranter worked on the policy staff of United States Senator Mark Dayton. In her Senate role, Ms. Tranter specialized in coordinating federal funding and infrastructure investment requests from cities, counties, nonprofits, and law enforcement agencies across the state. Her legislative focus was on transportation and economic development issues, aviation policy, environmental mitigation, and disaster relief.

Ms. Tranter, a native of Saint Paul, Minnesota, is a graduate of Hamilton College in Clinton, New York, with a bachelor's degree in political science and resides with her family in suburban Maryland.

Nancy A. Rhyme



Nancy Rhyme is the Chief Operating Officer and Director of Legislative Strategies at the Primacy Strategy Group. Ms. Rhyme provides oversight and management of the day to day operations of the firm. She has extensive experience in strategic planning, business development and fundraising.

She developed expertise on state legislatures during her lengthy tenure with the National Conference of State Legislatures (NCSL). She has cultivated relationships with legislative leaders, legislators and legislative staff in all 50 state capitols.

Nancy served as deputy executive director managing the Conference's core programs. Including overseeing the NCSL communications division, the NCSL Website, outreach and services to legislators and legislative staff, marketing, seminars and meetings, and the annual Legislative Summit. She created and led NCSL's Leader's Service program, a training and resource center for top state legislative leaders. She also served as director of the NCSL Foundation for State Legislatures. She has written numerous articles on legislatures, legislative leadership, and elections for State Legislatures magazine and the NCSL Website. She represented NCSL on assignments to China, Ethiopia, Germany, India and Kenya. Nancy holds a Bachelor of Arts degree with a triple major in History, Afro-American Studies and Women's Studies from the University of Wisconsin.

David F. Carbone



David F. Carbone has been a professional land use planner for nearly 40 years. His public sector career of over 30 years has focused on airport environs planning, including aircraft noise mitigation, land use compatibility, and airport community relations, most notably for San Luis Obispo and San Mateo Counties in California. He retired from San Mateo County in 2011 and is currently an airport environs planning consultant for public and private sector clients.

Highlights of Carbone's career include co-managing the FAR Part 150 property acquisition, relocation, and acquired structure demolition program at a commercial service airport to remove noise-sensitive land uses under the aircraft approach path to the airport, drafting a presentation on community noise impacts from commercial aircraft operations for a County Supervisor, which she delivered to the U.S. House of Representatives Aviation Subcommittee at a hearing in Washington D.C. (which he also attended); serving over 23 years as the Coordinator and Program Manager for the San Francisco International Airport/Community Roundtable, a public body that addresses community noise impacts related to aircraft operations at SFO; managing the activities of two county airport land use commissions and a county aircraft noise insulation program; assisting in the preparation of an airport environs specific plan for a commercial service/general aviation airport, presenting testimony to the State of California Assembly Select Committee on Airports and Airlines, regarding community noise impacts from aircraft operations at major commercial airports in California; serving on the Advisory Boards for two FAA Centers of Excellence, as a community representative, to foster research to assist the FAA in making recommendations to Congress regarding the development and use of alternative aviation fuels (non fossil fuels), potential mitigation actions related to community noise impacts and aircraft emissions, and the impacts of aviation activities on climate change, in partnership with academia and aviation industry representatives; participating on a project panel for an Airport Cooperative Research Program (ACRP) research effort on aircraft noise annoyance and sleep disturbance, and supporting the airport noise mitigation efforts of the National Organization to Insure a Sound-controlled Environment (N.O.I.S.E.), as a long time member and volunteer.

Carbone earned his Bachelor of Science degree in City and Regional Planning from California Polytechnic State University at San Luis Obispo and an Associate of Science degree in Pre-Architecture from Sierra Community College in Rocklin, California, with a focus on design and construction. He obtained additional training in aircraft noise mitigation and airport environs and transportation planning at the University of California at Berkeley, the University of California at Davis, the California Department of Transportation in Sacramento, and the Georgia Institute of Technology in Atlanta, Georgia.

Carbone has lived in the San Francisco Bay Area for over 30 years and is a native of Roseville, California.

Charles P. Kasbohm



Mr. Kasbohm is the Chief Financial Officer and Director of Association Management for the Primacy Strategy Group. Mr. Kasbohm is responsible for managing the finance and accounting functions for PSG. Mr. Kasbohm is a member of the executive management team providing budget management, cost-benefit analysis and forecasting to the CEO and the Board of Governors. In addition, he leads PSG's association and event management business unit.

Mr. Kasbohm has extensive experience in association management and provides clients expert advice in association structure, bylaws, board staffing support, financial management, strategic planning for advocacy and legislative efforts, and vendor management. With his leadership and guidance clients routinely experience revenue and membership growth for their associations. He and his team successfully oversee all aspects of client's events including, budget management, venue research and identification and registration services. Charles has executed on dozens of small scale and multiday conferences with thousands of attendees. They include events at the Republican and Democratic National Conventions, the National Conference of State Legislatures annual Legislative Summit and the Congressional Medal of Honor Society convention. Obsessed with details, Mr. Kasbohm is often accused of being a perfectionist. He believes that the details are what set apart the ordinary from the extraordinary.

Prior to joining Synergetic Endeavors Mr. Kasbohm had an abundance of experience in small business startups, development, operations, and management. A serial entrepreneur by nature, Charles has more than 30 years of business experience in a diverse number of industries, including owning and operating the first indoor extreme sports facility, one of the largest transportation services companies and wireless retail chains in the mid-west. He regularly received recognition for top sales and operational excellence.

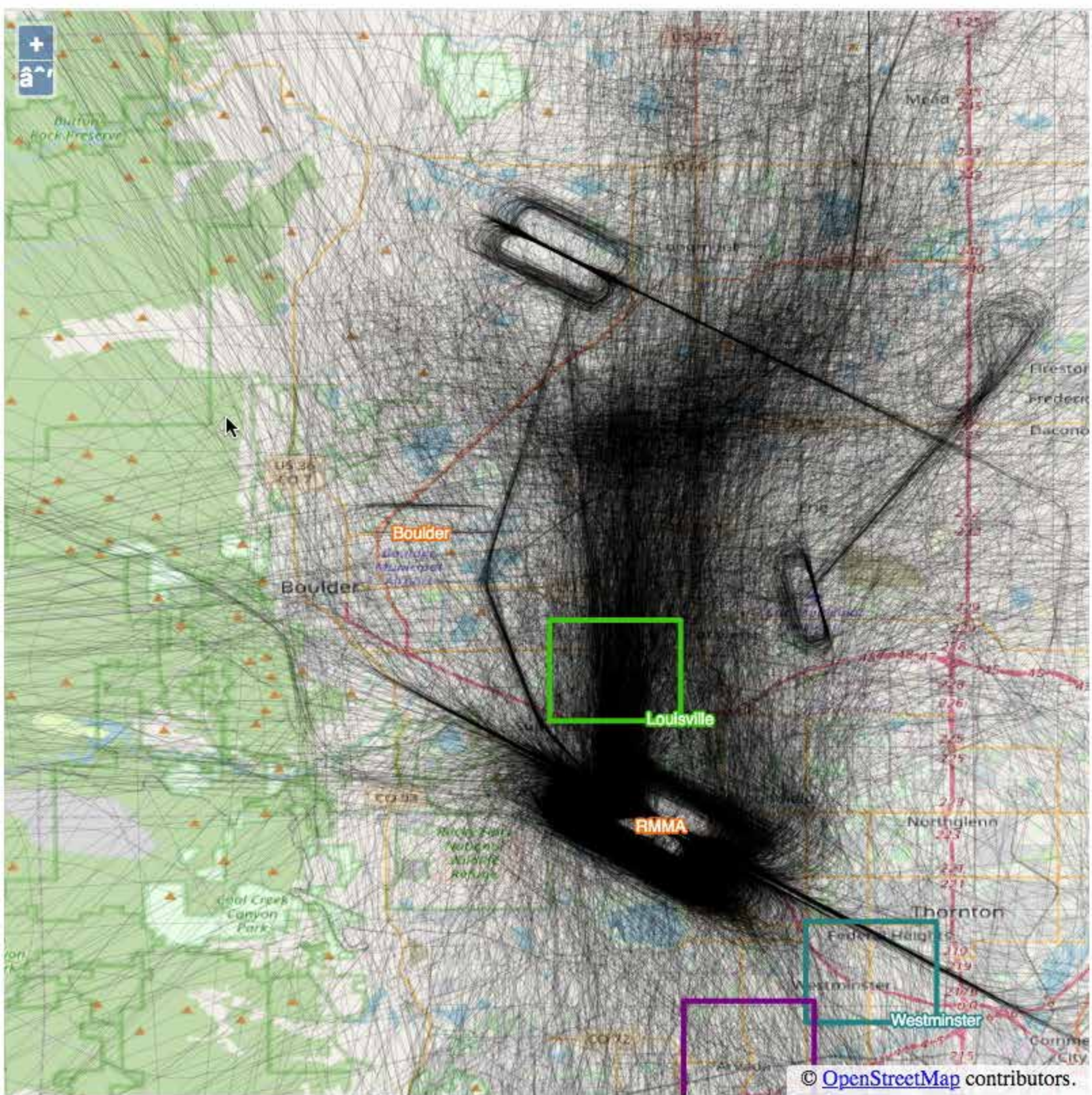
Charles has more than 30 years of business experience in a diverse number of industries, including owning and operating the first indoor extreme sports facility, one of the largest transportation services companies and wireless retail chains in the mid-west. With his experiences, Mr. Kasbohm easily develops solid relationships with his clients, colleagues, and vendors. This ability allows him to anticipate clients' needs, and have a greater understanding of their vision, goals, and objectives.

FEE STRUCTURE

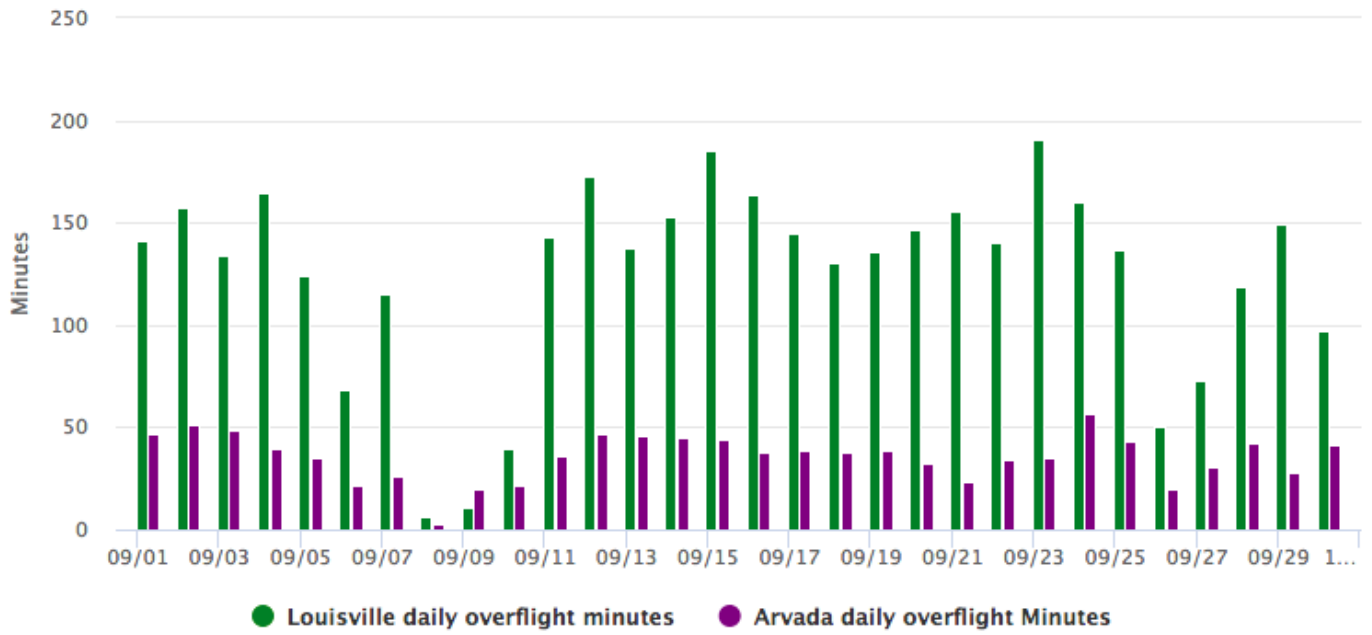
PSG strives to develop cost-effective, long-term relationships with satisfied clients. Our fees are structured to meet your needs and to achieve maximum value for your objectives. All fees will be billed monthly based on a 12-month contract.

Although we are proposing an annual retainer that includes all out-of-pocket costs, our services do not cease once we have reached the capacity of our billable rate. Instead, we take a vested interest in the success of our clients and thus go above and beyond the contract rate when needed.

Based on our understanding of your budget, we are prepared to offer an annual retainer of \$20,000 which will include the above proposed services and possible additional services/expertise as needed. We anticipate 4-8 hours of work a month depending on priorities of the roundtable and growing/changing needs.



RMMA Overflight Minutes Per Day



RMMA Flights Per Day

