



ABCx2 Progress Report – Louisville/Superior Project July 20, 2020

ABCx2 was tasked with helping the Town of Superior and the City of Louisville address growing community concerns about aircraft noise associated with the Rocky Mountain Metropolitan Airport. The project was broken down into multiple phases. The first phase involved conducting an assessment to become familiar with the communities and land-uses surrounding the airport, to gain an understanding of the communities and their concerns related to the airport and aviation operations, and to become familiar with the airport staff, airport operations, flight patterns and procedures, and the noise program measures that already existed.

The second phase of the project involved identifying actionable strategies that could be implemented to address the communities' noise concerns associated with aircraft operating in and out of Rocky Mountain Metropolitan Airport (RMMA). A portfolio of strategies was developed for consideration by Louisville and Superior. We are now in Phase II which involves prioritization of the strategies which were assigned to ABCx2 for implementation.

At the start of this project, RMMA had a noise program in place, which included a number of operational recommendations intended to minimize aircraft noise impacts to surrounding communities. Work conducted during the baseline assessment (Phase I of the project) suggested that while a number of program elements existed, they were not well publicized.

The list of strategies identified by the ABCx2 team included the expanded use of existing practices, modifications to existing practices, and the addition of new elements. The current list of operational recommendations included in the RMMA Fly Quiet Program include:

- **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 glidepath.** Shallow approaches expose neighborhoods to additional noise. A higher glidepath increases altitude thereby reducing 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 has been designated the primary, calm-wind runway.** Westerly prevailing winds favor runway 30L/R the majority of the time.
- **No intersection departures.** Using the full length of the runway (i.e. starting take-off roll from the approach end of the runway instead of from the middle of the runway) can enhance safety and allows aircraft to gain as much altitude as possible before leaving the airport perimeter.
- **Maintain pattern altitude of 6,500' for single engine aircraft and 7,000' for twins/turboprops/jets.** (*Note - These are standard pattern altitudes.*)

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- **Flight training operations (departures) are discouraged after 10:00 PM.** Federal regulations prohibit the airport from implementing a mandatory curfew, however, the flight schools have agreed to discourage departures after 10:00 PM daily.
- **Engine maintenance run-ups are prohibited between 10:00 P.M. and 6:00 AM except in an emergency.** (Note – federal regulations allow airports to prohibit maintenance activities including engine run-ups (in most cases). Engine run-ups do not fall under the category of flight operations which in most cases cannot be restricted by the airport operator).

Additional noise abatement and operational practices and procedures are under consideration by the Airport and Noise Task Force. Procedures requiring formal adoption or implementation by FAA air traffic control (ATC) will likely require approval from the FAA.

Western Service Area (WSA). This will require consideration and consensus from the Airport Roundtable, planned to convene in the 3rd Quarter of 2020.

The project is currently in Phase III which has three primary focuses. These include:

- Help Louisville and Superior prioritize the strategies identified during Phase II and identify which of these to actively pursue;
- Work with the Airport and RMMA Noise Task Force to advocate for implementation of the prioritized strategies; and
- Develop and manage an outreach campaign to engage RMMA industry stakeholders (including FAA WSA, FAA Air Traffic Control, etc.), flight schools, and other airport tenants, to encourage awareness and compliance with the RMMA noise abatement practices and procedures.

Prioritization of the recommendations was conducted during a Prioritization Workshop held in May 2020. The virtual workshop included staff from Louisville and Superior, as well as two Louisville Councilmembers and two Trustees from Superior. During the workshop, the 28 strategies identified were reviewed and discussed. Prioritization was based on an assessment of the effectiveness of each strategy and the likelihood of successful implementation. At the completion of the workshop, seven (7) high-priority and seven (7) medium-priority strategies were selected for implementation. The list of high and medium-priority strategies and their descriptions are included as Appendix I of this report. For the purpose of this report, the priority elements are summarized in the following section.

The clear top priority identified by Louisville and Superior involves working toward implementation of flight practices and procedures that pilots can follow which will reduce their noise impacts on residential communities. Specific examples included discouraging nighttime operations, avoiding overflight of residential areas, increasing altitudes when overflight of residential areas is unavoidable, encouraging early-turns on departure (when practical to avoid overflight of residential areas), and encouraging the use of community-friendly routes when transitioning to and from the practice areas north of RMMA.

Thus far, several of these elements have been incorporated in the RMMA noise program, “Fly Quiet”. The Airport has reached out to the local flight schools, all of whom agreed to discourage departures for training purposes after 10:00 PM nightly.

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Recommending the “best angle of climb” for departing aircraft means the aircraft will gain as much altitude as possible, before reaching the airport perimeter and subsequently, residential communities. “Fly the standard or higher glidepath” seeks to keep aircraft as high as possible (consistent with safety) as they make their way to land at RMMA. Publication and standardization of the airport traffic pattern altitude was also intended to keep aircraft in (or entering) the airport traffic pattern at the highest possible altitude. Overflying major roadways or open spaces (rather than residential communities) is also encouraged.

The components in the RMMA noise program are on par with airport noise programs across the state and across the country. However, we know that simply having operational procedures in place, does not necessarily reduce noise impacts to nearby communities, unless they are regularly practiced. One of the key tasks underway is the development of an outreach campaign to help ensure that information about the noise program elements, and the importance of participation, are known by local and visiting pilots as well as air traffic control. Over the next 2-3 months, ABCx2 will be working with Airport staff, flight schools, other airport tenants, and the FAA to identify the target audience, and the best strategies for reaching these groups, to promote awareness and support of the Airport’s noise program.

When this project first began it was clear that flight training operations made up a large percentage of the flights at RMMA and resulted in a significant portion of the community concerns and complaints. For this reason, the project team began engagement with the flight schools early to better understand their operations and to solicit their support in an effort to reduce noise impacts.

This engagement has come in the form of multiple meetings involving the flight schools and their commitment to support these noise reducing efforts, with the understanding that they must always operate in a safe manner, consistent with federal regulations, and to meet the needs of their students and customers.

The airport has hosted a number of meetings with the flight schools to discuss the noise program and has requested their support. The flight schools themselves have also initiated internal outreach to ensure staff, flight instructors, students, and other customers are aware of the RMMA noise program procedures and the importance of operating in a community-friendly manner to the extent practicable.

Recent flight school engagement efforts include:

- Briefing and/or re-briefing noise abatement procedures at monthly meetings with flight instructors
- Online training briefings for students and staff
- Posting noise abatement procedures and information throughout their buildings in common/public areas
- Publishing noise abatement procedures and information in a binder for pilot reference (located at the front desk)
- Adding noise program information to standing monthly flight instructor meetings. This includes visualizations for all flight instructors to review and share with students and renters.

The feedback from the flight schools so far, indicates their leadership, staff, and customers are open to these recommendations and that they understand the importance and value of being good neighbors.

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In addition to engaging the flight schools, the airport has been promoting the expanded noise program in a variety of ways. They have posted signage on the gates where pilots enter to access the airfield (to get to their aircraft). The Airport has also been collaborating with other airports from around the region to help share the information about the RMMA noise program and to encourage this information to be shared with local and regional area pilots (who may visit or operate at RMMA). A list of milestones/measures is being developed to monitor implementation of these recommendations. The details are included in an attachment to this report.

An important next step is the formation of an Airport Noise Roundtable. A roundtable with representation from around the region will help identify solutions to addressing aircraft noise issues. The development of new flight procedures or modification of existing procedures typically requires broad community support before the FAA will consider action. The Airport has been leading the development of the roundtable and working closely with Superior and Louisville to move this effort forward. The kick-off meeting of the roundtable is expected to take place in the August/September time frame. Some of the priority recommendations such as developing preferred routes to and from the practice areas to the north, will require review and support of the roundtable.

While there have been significant efforts made on the parts of Louisville, Superior, the Airport, and the flight schools, it is a challenge to measure the impact these efforts have had. Just how much impact this has had so far is hard to measure. The COVID-19 crisis led to a significant drop in aviation operations globally, and general aviation airports including RMMA were similarly affected. Numbers in flight operations dropped below levels following September 11, 2001. Over the last several weeks, stay-at-home orders and other restrictions are slowly being lifted allowing pilots and flight students to return to the airports. While the uptick in operations is likely well below pre-pandemic levels, the change is noticeable to communities who had several weeks of quiet skies.

To better understand the impacts of these efforts, the consulting team has been tasked with developing reporting metrics. ABCx2 is developing methodologies to measure support and/or participation levels for each of the prioritized strategies including education, outreach, and engagement efforts, changes in flight operations, volume of nighttime training operations, etc. The development of metrics and concrete ways to analyze and report success is one of the top priorities which ABCx2 will be moving forward with over the next several months.

In addition to expanding outreach and engagement with pilots, ABCx2 will continue to work closely with the local ATC to ensure they are aware of the growing community aircraft noise concerns and to seek support by enabling pilot use of the preferred noise abatement procedures and practices (consistent with safety).

The ABCx2 team will also be expanding the pilot outreach beyond the flight schools and local pilots based at RMMA. Access to visiting pilots will be established through partnerships and collaboration with aviation associations including the National Business Aviation Association (NBAA), the Aircraft Owners and Pilots Association (AOPA), and Colorado's own, Colorado Aviation Business Association (CABA).

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Understanding residents and seeking solutions to their concerns are the main drivers of this effort. Continuing dialogue with the community is another identified priority of ABCx2 and will be key. To that end, Superior and Louisville have been expanding the information presented on their website that pertains to the airport, aircraft noise issues, and who to contact with questions and concerns. A list of Frequently Asked Questions (FAQ) was developed to address the most common questions asked by the public. More recently, ABCx2 assisted the City of Louisville in developing and publishing their [Guide to Understanding Airport Operations and Aircraft Noise](#), which addresses many of the common questions and concerns residents may have. The guide presents a lot of information about complex issues in an approachable and easy-to-understand format. Rather than answering residents' questions and ending the conversation, the guide provides additional resources about who to call with questions or concerns, information regarding upcoming meetings, and the opportunity to provide feedback directly to the city.

Finally, one of the most important efforts in the final phase of the project will be the development of the Airport Roundtable. As noted, based on a request by Louisville and Superior, Jefferson County has agreed to the formation of an Airport Roundtable. The Airport is now leading this effort and is working closely with both Louisville and Superior throughout the process. The roundtable will bring together community representatives from around the region, along with airport representatives, air traffic control, and other aviation professionals. This will enable a dialogue among these critical stakeholders to help better understand the concerns on both sides and to identify and implement solutions that are legal, equitable, and sustainable. An initial meeting to establish the roundtable and its bylaws is scheduled for July 22nd with the proposed member communities.

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