

Minneapolis-St. Paul International Airport Noise Oversight Committee (NOC)



NOC Committee Members

Rich Benz User Co-Chair, Scheduled Airline Representative (Delta Air Lines)
Cheryl Jacobson Community Co-Chair, City of Mendota Heights Representative

Sarah Alig City of Eagan Representative (City of Eagan)

Grant Fitzer Minnesota Business Aviation Association Representative Mark Ray At-Large Community Representative (City of Burnsville) Kelly Bonner At-Large Airport User Representative (Endeavor Air, Inc.)

Courtney DesCamps City of Richfield Representative (City of Richfield)

John Klinger Chief Pilot Representative (Delta Air Lines)

Emily Koski City of Minneapolis Representative (Minneapolis City Council)

Dwayne Lowman City of Bloomington Representative (Bloomington City Council)

Angie Moos Cargo Carrier Representative (United Parcel Service)

Greg Norland Charter/Scheduled Operator Representative (Sun Country Airlines)

MEETING AGENDA

November 19, 2025, at 1:30 PM

IN-PERSON AND VIRTUAL MEETING FORMATS AVAILABLE

MAC General Office Building, Legends Conference Room, 6040 28th Avenue S, Mpls, MN 55450

Microsoft Teams Link: Click here to join the meeting or By Phone: 612-405-6798, ID: 950 317 15#

Rich Benz, Delta Air Lines, will be the Chairperson for the meeting

Note: 1:00 to 1:30 PM – Committee Agenda Review Session

(NOC members, alternates, and at-large contacts only in the Coleman Conference Room)

1. Consent

- 1.1. Approval of September 17, 2025 Meeting Minutes
- 1.2. Reports
 - 1.2.1. Monthly Operations Reports: September and October 2025
 - 1.2.2. Review of Fall Listening Session
 - 1.2.3. Summary of Aviation-Related Research Initiatives
 - 1.2.4. Review Residential Noise Mitigation Program Implementation Status

2. Public Comment Period

3. Business

3.1. Review and Approval of the 2025 NOC Accomplishments, 2026 NOC Work Plan, and 2026 NOC Meeting Dates

4. Information

- 4.1. MAC/MSP Update Brian Ryks, MAC Executive Director/CEO
- 4.2. Runway 12L and 12R Departure Operations Report

5. Announcements

Adjourn



MSP NOISE OVERSIGHT COMMITTEE DRAFT MEETING MINUTES

Wednesday, September 17, 2025, at 1:30 PM MAC General Offices 6040 28th Avenue South Minneapolis, MN 55450



Call to Order

A regularly scheduled meeting of the Minneapolis-Saint Paul International Airport (MSP) Noise Oversight Committee (NOC), having been duly called, was held Wednesday, September 17, 2025, at the Metropolitan Airports Commission (MAC) General Offices Legends conference room. A videoconference option (Teams) was also provided.

The meeting was called to order at 1:33 p.m. The meeting participants were:

Representatives: S. Alig, Eagan; J. Bergman, At-Large, Apple Valley; K. Bonner, Endeavor Air (via

Teams); J. Klinger, Delta Airlines; C. Miller, Richfield; Angela Moos, United Parcel Service (via Teams); G. Norland, Sun Country (via Teams); G. Norling, Mendota Heights; D. O'Leary, At-Large, Sunfish Lake; L. Olson, Minneapolis; J. Otzen, Target Corporation; Michael Pivec, At-Large, St. Louis Park (via

Teams);

Staff: R. Anderson, Manager - Community Relations; K. Fisher, Attorney (via

Teams); S. Lakku, Intern - Community Relations; N. Pesky, Vice President - Strategy and Stakeholder Engagement; M. Ross, Director of Stakeholder Engagement; J. Sonju, Acoustics Coordinator (via Teams); M. Takamiya, Assistant Manager - Terminal Operations and

Common Use Planning (via Teams);

Others: L. Chamberlain, St. Louis Park (via Teams); K. Gallatin, At-Large, St.

Paul (via Teams); S. Bodsberg, Inver Grove Heights; C. DesCamps, Richfield; N. Mills Ford, Mendota Heights; A. Joshua (via Teams); T. Lopac, Eagan; Y. Xu, HNTB (via Teams); R. Ziegler, Recording

Secretary.

A quorum of at least four Community and four User Representatives was established and confirmed.

Community Representatives: Alig, Bergman, Miller, Norling, O'Leary, Olson

User Representatives: Bonner, Klinger, Moos, Norland, Otzen

Member Alig noted that the Co-Chairs could not be present and asked for a motion to approve her to act as Chair for purposes of the meeting.

Member Miller moved to grant Member Alig authority to act as Chair for today's meeting. Member Norling seconded the motion. No further discussion was held.

The motion carried by unanimous vote.

Meeting Chair Alig introduced herself and the meeting rules, including those for participants on Teams.

She inquired as to whether or not a quorum had been established.

Ryan Ziegler, Recording Secretary, confirmed that a quorum was established.

1. Consent

Meeting Chair Alig introduced the consent agenda items and stated that they would be reviewed individually and then a motion would be sought for them to be approved together.

1.1. Approval of July 16, 2025 Meeting Minutes

Meeting Chair Alig opened discussion of the July 16, 2025, meeting minutes. No comments were made and no changes were requested.

1.2. Reports

1.2.1. Monthly Operations Reports: July and August 2025

Ryan Anderson, Technical Advisor, provided an overview of monthly operations, including details about the months' runway usage, nighttime and daytime operations, and noise complaints. Runway usage for the time period was significantly different from 2024, primarily dictated by wind and weather and construction, with more South Flow operations. He discussed carrier fleet mix at the airport, including predominant aircraft types.

He then reviewed July and August noise complaints, including numbers of complaints received and details about from where they were received. He noted that August complaint numbers were significantly higher than July's, correlating with runway closures due to construction. He also spoke about the seasonality of noise complaints, with more received in warmer months when people are outside more and have windows open. He gave details on MSP sound monitoring results, including the metrics used for noise impacts; the data collected for the time period; and potential causes for noise, including temperature and aircraft performance, as August was a much warmer month this year. He also reviewed noise abatement procedures and adherence to those procedures, which was high for both July and August.

Meeting Chair Alig asked if any members had questions or comments on the report.

Member Olson thanked MAC staff for the detailed information and indicated she would follow up with them to dig further into the data. She noted that Eagan has been getting a lot of complaints and that she wants to make sure that correct information is learned as far as what noise is truly annoying to people. She noted many of the complaints were received before construction. For one particular ten-day stretch at the end of July and beginning of August, 92% of all arrivals were landing on Runway 12 over Minneapolis and South Flow was used heavily. She said that is a factor in the noise complaints and further discussed how runway usage affects noise even without construction. She wondered how data could be parsed out to see what was construction-related and what was not. She indicated that heavy and unrelenting use of the South Parallel runway with no reprieve is a major contributor to consistent and annoying noise, and she wanted further information on how the different factors could be separated out to gain better understanding.

Anderson thanked **Member Olson** for her comments. He stated that there are many factors to annoyance due to aircraft noise and that unusual activity and changes can spike complaints. He confirmed that annoyance also spikes when one configuration is used consistently and without

relief. He noted that there was a period in late July to early August when, due to wind and weather, South Flow was used heavily and that there was a spike in complaints in relation to that.

Member Olson then discussed when one runway is designated for arrivals to increase efficiency for air traffic control and how that increases noise consistency and complaints and makes the sound continuous for some populations. She said that these high-demand periods seem to be lasting longer than in the past and expressed concern that unbalanced runway usage could be a growing issue.

Member Norling inquired what data was used for the conclusion that complaints are seasonal and related to people being outside or having their windows open more in the summer.

Anderson stated the correlation is supported by the data between complaints being higher and people being more exposed to the noise in warmer months when they are outside more.

Member Norling asked whether that correlation has specifically been studied to show that people being outside more was causative of increased complaints.

Anderson was not aware of any such study specific to MSP, but he said that studies have shown a correlation between warmer months and higher complaint levels.

Member Norling explained that she wanted to further understand the data and said her perception is that aircraft performance in warmer months would be a more likely cause.

Anderson stated that could be true. He gave information on altitude density, which is affected by pressure and temperature. High-density altitude occurs at high altitudes or in hot temperatures, reducing aircraft performance. In contrast, low-density altitude is beneficial for performance. He noted that aircraft performing worse in warmer months increases the time it takes for take-offs to gain altitude, leading to aircraft being lower for longer and sometimes to higher levels of noise depending on perceptions and location.

Meeting Chair Alig pointed out that the data shows Eagan has been quite impacted by South Flow usage and by runway construction. She stated that she looks forward to seeing noise relief in the next set of data. She asked for any further comments or questions, and there were none at this time. She then inquired if there was a motion to approve the consent agenda items.

Member Bergman moved to approve the consent agenda items as presented. Member Miller seconded the motion. No further discussion was held.

The motion carried by unanimous vote.

Anderson noted there was one more item on the consent agenda.

1.2.2. Review of Summer Listening Session

Meeting Chair Alig opened a discussion regarding the Summer Listening Session.

Anderson reviewed information about the Summer Listening Session held July 29 at the Highland Park Community Center. It was held at night to allow for more participation, and there was a Teams option for virtual participation. Three Highland Park residents attended. **Committee Members Kevin Gallatin, Loren Olson, Mark Ray,** and **Victor Rivas** attended along with MAC and FAA staff. A

goal of the session was discussion of runway construction impacts which led to significant noise annoyance for St. Paul, especially Highland Park. Community members were engaged with to explain the increased noise. It was hoped that the session would be more highly attended, but there were many people who called the noise phone line and were engaged with in that way.

Meeting Chair Alig inquired if members had any questions or comments regarding the listening session, and there were none at this time.

2. Public Comment Period

Meeting Chair Alig introduced the public comment period. She reviewed the rules for the public comment period and noted that such an opportunity is always included in NOC meetings.

Tom Lopac, Eagan resident, stated he lives just south of Highway 55 near Lexington and that he moved there in 1985 to get away from noise in Richfield. He indicated that he has attended some of these meetings over the years. He noted that the noise starts earlier each week and that it used to start Friday and go through the weekend, and now it starts Wednesday or Thursday and goes to Monday or Tuesday, almost all week. He said he has recorded the noise over his deck at over 80 decibels and that he hears planes from inside the house. He stated aircraft type makes a difference in the noise and that, with more efficient engines, planes could be quieter and have less of an effect on the public. He continued by noting that, in winter months, his house sometimes shakes with arrivals. He stated the berms in place may not be high enough to suppress noise. He noted that planes over 4,000 feet are quieter and those in the 2,000 - 3,000-foot range are louder. He reviewed common paths aircraft use when they go over his house, saying that they also go right over city hall. He suggested planes could accelerate over the river until they get higher to help abate noise. He complained about the noise and said he would like to see it quieter. He indicated he is unable to talk to people on his deck during the day until as late as 10 or 10:30 at night. He thanked the Committee for their time and attention.

Meeting Chair Alig thanked **Lopac** for his comments. She then asked if there were any further public comments, and there were none at this time. She concluded the public comment period.

3. Business

Meeting Chair Alig stated that no business items were on the agenda.

4. Information

4.1. MSP Construction Updates

Anderson reviewed the timing of the two phases of construction and the runway closures involved. He stated construction would finish on September 26, with the runway available for use no later than 7 p.m on that day. He talked about runway configurations air traffic control has used during the construction period in each phase and how that correlated with complaints received. He discussed air traffic control's preferred configurations and reviewed the top four configurations used during construction. He noted that configuration and runway choices were affected by weather conditions and reviewed specific data regarding runway usage. He noted that, in both construction phases, many arrivals were on one runway, which corelated to the increase in noise complaints. MAC staff has done, and is doing outreach to community members and is answering questions and complaints received about changing configurations and airport noise. He pointed to additional information on the MAC website (https://metroairports.org/our-airports/msp-airport) and in the MSP newsletter.

Member Olson asked about arrivals on Runway 17 and whether that configuration is prohibited, typically, and stated its use in that way was unusual. She noted the impacts over downtown Minneapolis and asked whether many people in that pathway complained.

Anderson stated he could follow up with more specific data on arrivals on Runway 17 and its impact on downtown Minneapolis. He knew that complaints had been received but was unsure if their number was significant. He agreed that it is unusual for Runway 17 to be so heavily used for arrivals and that it would cause aircraft noise in areas which are not usually as impacted.

Member Olson stated there are multiple dynamics at play and that it is difficult to understand which cause the most negative noise impacts. She discussed preliminary September data, which showed heavy departures from Runway 17 over Eagan. She expressed hope that, after construction is done and runway usage returns to more normal patterns, resident impacts will be alleviated.

Member Bergman said he would like to see data that shows historical noise impacts from prior construction projects so they could be used to compare different construction periods. He acknowledged there are multiple factors at play, including louder aircraft and less traffic volume during past projects, but he still thought it would be helpful to look at comparative data for construction projects from the 1990s through the present.

Anderson said he would be happy to work with the Co-Chairs to look into such a comparison and that that was a good segue into the work plan for 2026 if there were no other questions.

Meeting Chair Alig indicated he could proceed into the draft 2025 work plan update.

4.2. Draft 2026 Work Plan

Anderson pointed the Committee towards the draft work plan for next year. He stated that no action was requested at the present time, but he requested that Committee members review and consider the items in the plan between now and the November meeting. He asked Committee members to contact the Co-Chairs if they have any items they would like to be added to the plan. He noted that a public listening session would be held in October to get community feedback, which would be brought to the Committee at the November meeting so that the work plan can be finalized.

Meeting Chair Alig thanked **Anderson** and asked if there were any questions or comments on the draft 2026 work plan.

Member Norling asked whether there would be an update provided to the NOC on the 2025 work plan.

Michele Ross, Director of Stakeholder Engagement, confirmed that a review of the 2025 work plan will be presented at the November meeting.

Member Gallatin inquired as to the date that the runway construction would be complete.

Anderson stated that it would be available for use on September 26 no later than 7 p.m.

Meeting Chair Alig asked if there were any further questions or comments, and there were none at this time.

5. Announcements

Anderson reviewed information for the public Fall Listening Session, stating that it would be held at MAC General Offices on October 22 at 6 p.m. He stated that a review of the listening session would be presented to the NOC at the November meeting, which is scheduled for November 19.

Meeting Chair Alig inquired if any members in the room or online had announcements. There were no further announcements at this time.

Adjourn

Meeting Chair Alig adjourned the meeting at 2:23 p.m.

November NOC Meeting:

Wednesday, November 19, 2025 @ 1:30 p.m.

Location: MAC General Offices, Legends conference room + Teams

NOC Meetings

NOC Fall Listening Session:

Changed to Wednesday, October 29, 2025 @ $6:00 \ p.m.$

Location: MAC General Offices, Legends conference room

Listening Session website

ITEM 1.2.1

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: REVIEW OF MSP MONTHLY OPERATIONS REPORTS: SEPTEMBER AND

OCTOBER 2025

DATE: November 5, 2025

Each month, the MAC reports information on MSP aircraft operations, aircraft noise complaints, sound levels associated with MSP aircraft operations, and compliance with established noise abatement procedures on its interactive reporting website: customers.macnoms.com/reports.

At the November NOC meeting, MAC staff will provide a summary of this information for September and October 2025. To view these summary reports prior to the meeting, visit the "Archive" section at the link above.

ITEM 1.2.2

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: REVIEW OF FALL LISTENING SESSION

DATE: November 5, 2025

The primary goal of Listening Session meetings is to ensure residents' concerns are heard and considered as part of the ongoing effort by the MAC and the NOC to address noise and other topics around MSP.

On October 29, 2025, at 6:00 P.M., staff from the MAC's Community Relations Office conducted a Listening Session at the MAC General Offices and via Teams. Attendees included two residents from Minneapolis, one resident from Eden Prairie, one resident from Mendota Heights, two residents from West Saint Paul, and one resident from Bloomington. Also in attendance were NOC members Rich Benz, Mark Ray, John Bergman, and staff from the MAC.

Staff provided an overview of the NOC and the Work Plan for 2026 and then opened the floor to discussion. Questions arose regarding eligibility for the residential sound insulation program, adherence to noise abatement departure procedures, and changes in departure flight patterns for runways 12R and 12L. It was requested that the NOC include further analysis of the 12R and 12L departure operations in their 2026 work plan to investigate if there have been changes in flight patterns and the potential causes for any changes.

The next Listening Session is anticipated to be held at MAC General Office on January 21, 2026 at 6 P.M. Additional information will be made available on the Listening Session website.

At the November meeting, staff will provide an update on this item.

ITEM 1.2.3

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: SUMMARY OF AVIATION-RELATED RESEARCH INITIATIVES

DATE: November 5, 2025

In accordance with the 2025 NOC Work Plan, MAC staff have enclosed an updated listing of aviation-related research initiatives pertaining to aircraft noise, technology, human health, and environmental topics.

A summary of the research projects that were completed, active, initiated, or anticipated in 2025 or 2026 is provided in the attached report, and includes work by the Transportation Research Board (TRB), the FAA's Centers of Excellence (ASCENT), and other researchers.



Aviation-Related Research Summary

Summary of Research Related to Aircraft Noise, Technology, Human Health, and Environmental Topics Pertaining to Aircraft Operating at Minneapolis-St. Paul International Airport

November 2025

Contents

<u>1.</u>	Introduction	. 13
<u>2.</u>	Federal Aviation Administration (FAA)	.13
<u> </u>	A. Noise Policy Review	.13
	Follow-up: FAA Reauthorization Act of 2024 (Pub. L. 118-254) Section 786 and	
	<u>Sec 792</u>	
<u>E</u>	3. <u>National Sleep Study</u>	.13
<u>3.</u>	Research Agency Overview	.14
<u> </u>	A. <u>Transportation Research Board</u>	.14
<u>E</u>	3. <u>ASCENT</u>	14
<u>C</u>	C. International Civil Aviation Organization (ICAO)	.14
	Research Agency Project Table	.15
<u>4.</u>	Other Studies	.17
<u> </u>	A. <u>Nurses' Health Study</u>	.17
E	3. <u>Electric Aircraft</u>	.17
	MIT Electric Aircraft Initiative	.17
	NASA Electrified Aviation Programs	.17
	Hybrid-Electric Aircraft	.18
	MnDOT-Electric Aviation	.18
<u>C</u>	C. <u>Propeller</u>	.18
<u></u>	O. Contrails	. 19

1. Introduction

Research is ongoing by various agencies in the U.S. and across the globe to evaluate the effects of aviation noise and other environmental impacts associated with aircraft operations. Much of this research explores technological solutions and scientific advancements developed through many years of study.

This summary provides a description of research efforts in late 2024 and early 2025 that are most applicable to passenger service airports like Minneapolis-St. Paul International Airport (MSP) and are highlighted for consideration by the MSP Noise Oversight Committee (NOC) for future exploration.

2. Federal Aviation Administration (FAA)

A. Noise Policy Review

Follow-up: FAA Reauthorization Act of 2024 (Pub. L. 118-254) Section 786 and Sec 792

The FAA continues its Noise Policy Review in response to congressional mandates. The FAA Reauthorization Act of 2024 directs the agency to establish an Aircraft Noise Advisory Committee (ANAC) under Section 792 to provide recommendations on aircraft noise exposure and policy. The FAA has adjusted its review timeline to incorporate ANAC's findings before finalizing any updates.

Section 786 of the Act also requires updates to the Airport Noise Compatibility Program regulations (14 C.F.R. Part 150). These updates will similarly be informed by ANAC's recommendations.

The FAA completed its review of 4,857 public comments submitted in response to the 2023 Federal Register Notice and published a summary to support ANAC's work. The Noise Policy Review continues to evaluate the use of Day-Night Average Sound Level (DNL), the 65 dB DNL threshold, and alternative metrics for assessing aircraft noise impacts.

Here is a link to the Noise Policy Review: https://www.faa.gov/noisepolicyreview

B. National Sleep Study

The FAA continues its sponsorship of the National Sleep Study, which examines the impact of nighttime aircraft noise on sleep for residents near airports. In 2024, data were collected from approximately 400 individuals through a partnership with research company Westat and the University of Pennsylvania. The FAA will use this data to inform potential updates to or validation of the national aviation noise policy.

A Privacy Impact Assessment (PIA) was published in accordance with Section 208 of the E-Government Act of 2002, as the study involves collection of Personally Identifiable Information (PII).

More information may be found:

https://www.transportation.gov/resources/individuals/privacy/national-sleep-study

3. Research Agency Overview

Research collaborations are conducted on an ongoing basis and detailed by the Transportation Research Board (TRB) and ASCENT. More information about each research agency and the referenced projects is accessible through the website links provided in the Research Agency Project Table on the following pages.

A. Transportation Research Board

The mission of the Transportation Research Board (TRB) promotes innovation and progress in transportation through research. According to the TRB website, the organization facilitates the sharing of information on transportation practice and policy by researchers and practitioners; stimulates research and offers research management services that promote technical excellence; provides expert advice on transportation policy and programs; and disseminates research results broadly and encourages implementation.

The Airports Cooperative Research Program (ACRP) is sponsored by the Federal Aviation Administration (FAA) and managed by the National Academies through TRB. ACRP research topics are selected by an independent governing board appointed by the U.S. Secretary of Transportation that includes individuals from airports, universities, FAA, and the aviation industry.

For more information: https://www.nationalacademies.org/trb/transportation-research-board

B. ASCENT

The Aviation Sustainability Center, called ASCENT— also known historically as the FAA's Center of Excellence program—conducts aviation-related research to develop "science-based" solutions to challenges posed by aircraft operations. Projects undertaken by ASCENT are funded by the FAA, NASA, DOD, Transport Canada, and the US EPA.

For more information about this organization: https://ascent.aero/

C. International Civil Aviation Organization (ICAO)

The ICAO Environmental Report 2025 summarizes progress made during the past three years in environmental protection activities it undertakes in key areas including aircraft noise, air quality, climate change, and sustainable fuels. The report highlights the growing importance of managing short-lived climate pollutants such as contrails, which could contribute up to 40% of a 90% reduction in additional warming by 2050, twice the impact of sustainable aviation fuels alone. It also outlines advancements in the Global Framework for Sustainable Aviation Fuels, enhancements to the CORSIA program, and continued international cooperation among ICAO's 193 member states to achieve net-zero carbon emissions by 2050.

The report is available here: https://www.icao.int/environmental-protection/envrep2025

Research Agency Project Table						
Agency	Project #	Project Title	Project URL	Status		
TRB	ACRP 02-102	A Balanced Look at Local Airport Activity and Climate Change	http://apps.trb.org/cmsfeed/TRBNetProje ctDisplay.asp?ProjectID=5203	Completed 3/20/2024		
ASCENT	003	Cardiovascular Disease and Aircraft Noise Exposure	https://ascent.aero/project/noise-impact-health-research/	Ongoing Report 2024		
ASCENT	044	Aircraft Noise Abatement Procedure Modeling and Validation	https://ascent.aero/project/aircraft-noise-abatement-procedure-modeling-and-validation/	Ongoing Report 2024		
ASCENT	061	Noise Certification Streamlining	https://ascent.aero/project/noise- certification-streamlining/	Ongoing Report 2024		
ASCENT	062	Noise Model Validation for ADET	https://ascent.aero/project/noise-model- validation-for-aedt/	Ongoing Report 2024		
ASCENT	077	Measurements to Support Noise Certification for UAS/UAM Vehicles and Identify Noise Reduction Opportunities	https://ascent.aero/project/measurement s-to-support-noise-certification-for-uas- uam-vehicles-and-identify-noise- reduction-opportunities/	Ongoing Report 2024		
ASCENT	080	Hydrogen and Power- to-Liquid (PtL) Concepts for Sustainable Aviation Fuel Production	https://ascent.aero/project/hydrogen- and-ptl-concepts-for-sustainable- aviation-fuel-production/	Ongoing Report 2024		
ASCENT	084	Noise Modeling of Advanced Air Mobility Flight Vehicles	https://ascent.aero/project/noise- modeling-of-advanced-air-mobility-flight- vehicles/	Ongoing Report 2024		
ASCENT	086	Study on the Use of Broadband Sounds to Mitigate Sleep Disruption Due to Aircraft Noise	https://ascent.aero/project/study-on-the-use-of-broadband-sounds-to-mitigate-sleep-disruption-due-to-aircraft-noise/	Ongoing Report 2024		

Research Agency Project Table						
Agency	Project #	Project Title	Project URL	Status		
ASCENT	009	Sociodemographic Patterns of Exposure to Civil Aircraft Noise in the United States	https://ascent.aero/publication/sociodem ographic-patterns-of-exposure-to-civil- aircraft-noise-in-the-united-states/	Completed 2/15/2022		
ASCENT	053	Validation of Low- Exposure Noise Modeling by Open- Source Data Management and Visualization Systems Integrated with AEDT Project Number: 053	https://ascent.aero/project/validation-of-low-exposure-noise-modeling-by-open-source-data-management-and-visualization-systems-integrated-with-aedt/	Ongoing Report 2024		
ICAO	CAEP 12	Non-acoustic factors in community annoyance due to aviation noise	https://www.icao.int/sites/default/files/sp-files/environmental-protection/Documents/ScientificUnderstanding/ICAO-CAEP12-White-Paper-on-non-acoustic-factors-in-community-annoyance.pdf	Ongoing Report 2024		
ICAO	CAEP	Report on Good Practices of Noise Monitoring Systems	https://www.icao.int/sites/default/files/environmental-protection/Documents/CAEP%20WG2/Report-On-Good-Practices-Of-Noise-Monitoring-Systems-1.pdf	Ongoing Report 2025		
ICAO	Aircraft Noise	A Balanced Path Toward Community and Operational Sustainability	https://www.icao.int/sites/default/files/sp-files/environmental-protection/Documents/EnvironmentReport-2010/2025/Envreport2025_95.pdf	Ongoing Report 2025		
ICAO	Aircraft Noise	Revisiting Noise Abatement Departure Procedures (NADP) Application	https://www.icao.int/sites/default/files/sp-files/environmental-protection/Documents/EnvironmentReport-2010/2025/Envreport2025_94.pdf	Ongoing Report 2025		
ICAO	Aircraft Noise	Advancing Global Standards for Aircraft Noise: Developments from CAEP/13 and Outlook to CAEP/14	https://www.icao.int/sites/default/files/sp-files/environmental-protection/Documents/EnvironmentReport-2010/2025/Envreport2025_91.pdf	Ongoing Report 2025		

4. Other Studies

A. Nurses' Health Study

Environmental Health Perspectives published findings in 2024 from the Nurses' Health Study and Nurses' Health Study II showing a positive association between long-term exposure to fine particulate matter (PM2.5) and nitrogen dioxide (NO₂) and incidence of type 2 diabetes (T2DM) among U.S. women. The study followed over 208,000 participants from 1992 to 2019 and found that these associations persisted even at pollutant levels below current EPA standards. The Environmental Health Perspectives is available here: https://ehp.niehs.nih.gov/doi/10.1289/EHP15673

B. Electric Aircraft

MIT Electric Aircraft Initiative

MIT continues its long-term research into electric aircraft through its Electric Aircraft Initiative, focusing on propulsion technologies and all-electric aircraft configurations. The initiative includes industry-academic partnerships, such as collaborations with NASA, aimed at developing near-silent, low-emission commercial aircraft.

More information about is available here: https://www.mmi.mit.edu/groups/electric-aircraft-initiative

NASA Electrified Aviation Programs

The National Aeronautics and Space Administration (NASA). NASA's Integrated Aviation Systems Program supports multiple electric aviation projects, including the Electrified Powertrain Flight Demonstration (EPFD), the Sustainable Flight Demonstrator, and the X-57 Maxwell, which aims to demonstrate the benefits of electric propulsion. NASA is also advancing the X-66A truss-braced wing design and working with industry partners on electric air taxis through its Advanced Air Mobility (AAM) mission. Additional collaborations include the University Leadership Initiative and FAA's Innovate28, supporting electric aircraft operations in U.S. communities by 2028.

More information is available: https://www.faa.gov/sites/faa.gov/files/NARP-2025-2029-with-letters.pdf

Hybrid-Electric Aircraft

In 2025, Swedish company Heart Aerospace is set to test the Heart X1, the world's largest all-electric aircraft, at Plattsburgh International Airport in New York. The Heart X1 is a full-scale demonstrator for the ES-30, a 30-seat hybrid-electric regional airliner designed for quieter, low-emission flights. The ES-30 can travel 124 miles on electric power alone and up to 497 miles using turbo generators. Its flexible design allows operation from smaller airports, boosting regional connectivity and sustainability.

Read more here: https://heartaerospace.com/newsroom/heart-aerospace-to-conduct-first-fully-electric-experimental-flight-in-plattsburgh-ny/

MnDOT-Electric Aviation

In 2025, the Minnesota Department of Transportation Aeronautics Office launched the MEAN Study, an ongoing initiative aimed at identifying which public-use airports across the state are best positioned to support future electric aircraft operations including short-haul cargo, pilot training, and medical transport. All seven of the airports owned by the Metropolitan Airports Commission are considered candidate airports.

The study focuses on long-term planning, policy guidance, infrastructure readiness, and investment priorities, rather than immediate construction or upgrades. With 70 participants, the team has shortlisted 26 airports in collaboration with aviation consulting firms and utility providers, evaluating infrastructure supply, electrical capacity, potential use cases, activity levels, and regional demographic needs.

Read more here: https://mnsasp.org/mean/

C. Propeller

Athule Aero is developing the patented Double Break Propeller, designed to reduce noise by 75% and increases efficiency by 15% compared to traditional propellers. Tailored for unmanned aircraft, the propeller eliminates the tip to reduce drag and sound, enabling quieter operations ideal for urban drone delivery and wildlife monitoring. Athule Aero plans to expand into manned aviation and naval applications in the future.

More information may be found on the company's website: https://www.athule.com/

D. Contrails

Airbus and a consortium of 10 partners launched PACIFIC (Particle emissions, Air Quality and Climate Impact related to Fuel Composition and Engine Cycle) in January 2025. This project is being funded by Horizon Europe (European Union). The project investigates how fuel composition and engine cycles influence particle emissions and contrail formation. PACIFIC aims to improve modeling and prediction tools, support future fuel specifications, and inform policy recommendations to reduce aviation's non-CO₂ climate impacts.

More information about PACIFIC is available here:

https://www.airbus.com/en/newsroom/press-releases/2025-03-pacific-a-new-european-project-led-by-airbus-will-advance-research

ITEM 1.2.4

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: REVIEW OF RESIDENTIAL NOISE MITIGATION PROGRAM

IMPLEMENTATION STATUS

DATE: November 5, 2025

The NOC 2024 Work Plan includes a review of the residential noise mitigation program implementation.

For nearly three decades, the MAC has administered one of the most aggressive noise mitigation programs in the world for communities surrounding Minneapolis-St. Paul International Airport (MSP). Since 1992, the MAC has spent over \$513 million on noise mitigation programs. This includes insulating more than 15,000 single-family homes, 3,300 multi-family units, 18 schools and acquiring over 400 residential properties affected by MSP aircraft activity. The MAC is committed to continue mitigating homes impacted by MSP activity based on an amended Consent Decree until the year 2032.

Amended Noise Mitigation Program

Under the provisions of the First, Second, and Third Amendments to the Consent Decree, filed by the MAC, the cities of Minneapolis, Richfield, Eagan, and the Minneapolis Public Housing Authority, properties must meet certain criteria to be considered eligible for participation in the MAC noise mitigation program.

First, as stated in the Amendment:

"The community in which the home is located has adopted local land use controls and building performance standards applicable to the home for which mitigation is sought that prohibit new residential construction, unless the construction materials and practices are consistent with the local land use controls and heightened building performance standards for homes within the 60 DNL Contour within the community in which the home is located."

Second, as stated in the Amendment:

"The home is located, for a period of three consecutive years, with the first of the three years beginning no later than calendar year 2020 (i) in the actual 60-64 DNL noise contour prepared by the MAC under Section 8.l(d) of this Consent Decree and (ii) within a higher noise impact mitigation area when compared to the Single-Family home's status under the noise mitigation programs for Single-Family homes provided in Sections 5.1 through 5.3 of this Consent Decree or when compared to the Multi-Family home's status under the noise mitigation programs for Multi-Family homes provided in Section 5.4 of this Consent Decree. The noise contour boundary will be based on the block intersect methodology. The MAC will offer noise mitigation under Section IX of this Consent Decree to owners of eligible

Single- Family homes and Multi-Family homes in the year following the MAC's determination that a Single-Family or Multi-Family home is eligible for noise mitigation under this Section."

In cases where homes have received previous reimbursements or mitigation from the MAC, those improvements will be deducted from the efforts required to increase the homes' mitigation relative to the actual noise level, per the amended Consent Decree. A second amendment was made to the Consent Decree in 2017. This amendment allows the use of the Aviation Environmental Design Tool (AEDT) to run the actual noise contours each year, beginning with the 2016 actual noise contour. In 2015, AEDT became the federally-approved computer model for determining and analyzing noise exposure and land use compatibility issues around United States airports. The second amendment also provided clarity on the optout eligibility criteria. Specifically, single-family homes that previously opted out of the Partial Noise Reduction Package may participate in the Full 5-decibel Reduction Package, provided the home meets the eligibility requirements. The third amendment extends the program to 2032.

2017 Noise Mitigation

In 2017, the MAC began the project to provide mitigation to 138 single-family homes that became eligible by virtue of the 2015 actual noise contour. 118 homes were completed in this program, 10 homes declined to participate, and 12 homes were moved to later programs.

Two multi-family structures were eligible to participate in the Multi-Family Mitigation Program in 2017; one property was completed, and one property declined to participate.

The total cost for the 2017 Mitigation Program was \$2,442,685.

2018 Noise Mitigation

In 2017, the MAC began the project to provide mitigation to 283 single-family homes that became eligible by virtue of the 2016 actual noise contour. 230 homes were completed in this program, 16 homes declined to participate while 36 homes were moved to later programs.

The total cost for the 2018 Mitigation Program was \$7,294,999.

2019 Noise Mitigation

In 2018, the MAC began the project to provide mitigation to 429 single-family homes that became eligible by virtue of the 2017 actual noise contour. As of October 17, 2025, 371 homes have been completed and 45 homes have declined to participate. The total cost for the 2019 Mitigation Program to date is \$13,333,018.

2020 Noise Mitigation Program

In 2019, the MAC began the project to provide mitigation to 243 single-family homes that became eligible by virtue of the 2018 actual noise contour. As of October 17, 2025, including the homes transitioned from previous programs, 264 homes have been completed, 4 homes are in the construction or pre-construction phase and 38 homes have declined to participate.

The total cost for the 2020 Mitigation Program to date is \$10,096,902.

2021 Noise Mitigation Program

In 2020, the MAC began the project to provide mitigation to 16 single-family homes that became eligible by virtue of the 2019 actual noise contour. As of October 17, 2025, 15 homes have been completed and 1 home has declined to participate.

The total cost for the 2021 Mitigation Program to date is \$286,121.

The 2020, 2021, and 2022 actual noise contours did not qualify any additional homes for mitigation.

The MAC will continue to implement the mitigation program for homes that remain eligible from previous years analyses. Homeowners who were eligible to participate in the 2017-2024 Program but who have not participated in the program were contacted in June 2024. The opportunity to participate in that phase of the program ended on December 31, 2024.

First year eligibility was achieved for 245 single-family residences and 539 multi-family units within the 2023 60 dB DNL noise contour in the City of Minneapolis. An additional 97 single-family residences within the 2023 63 dB DNL noise contour in the City of Minneapolis achieved first year eligibility for the 2025-2032 Program.

There are 196 single-family and 5 multi-family homes that achieved the first year of eligibility as a result of the 2024 Actual Contour as outlined by the terms of the 2025-2032 Program. Of those homes, 29 single-family are located outside of previously mitigated areas. An additional 20 single-family homes are located within previously mitigated areas and within the 60 DNL contour. The remaining 147 single-family homes and 5 multi-family homes were previously mitigated under the Partial Noise Reduction Package and have moved into the 63 DNL contour.

Additionally, there are 332 single-family and 542 multi-family homes that achieved the second year of eligibility as a result of the 2024 Actual Contour as outlined by the terms of the 2025-2032 Program. Of those homes, 235 single-family and 542 multi-family homes are located outside of previously mitigated areas. The remaining 97 single-family homes were previously mitigated under the Partial Noise Reduction Package and have moved into the 63 DNL contour.

If these homes remain in a higher noise impact area compared to previous noise mitigation programs for three consecutive years, they will become eligible to receive mitigation in the 2025-2032 Program.

At the November meeting, staff will be available to answer questions on this item.

ITEM 2

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: PUBLIC COMMENT PERIOD

DATE: November 5, 2025

Members of the public are welcome to listen to the NOC meeting. During the meeting, a public comment period of no more than 20 minutes is included on the agenda. Individuals who wish to speak during the public comment period may do so by following the directions of the chairperson.

Below are some rules of decorum for speaking at NOC meetings.

- Each speaker will have one opportunity to speak and is allotted three (3) minutes. The public comment period is limited to 20 minutes.
- The chairperson will open the public comment period by asking for participants who wish to speak to indicate their desire following the direction of the chairperson. Comments can be made in-person or virtually for those participating using Microsoft Teams.
- Commenters shall address their comments to the NOC and not to the audience.
- No response from the NOC is provided during the comment period.
- Use of profanity, personal attacks, or threats of violence will not be tolerated.
- Interruptions from the audience, such as speaking out of turn, shouting, and other disruptive behavior are not permitted.
- If special assistance is needed to make a public comment, please contact the NOC Secretary at least two days prior to the meeting by sending an email to: nocsecretary@mspmac.org.

ITEM 3.1

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: REVIEW AND APPROVAL OF THE 2025 NOC ACCOMPLISHMENTS,

2026 NOC WORK PLAN, AND 2026 NOC MEETING DATES

DATE: November 5, 2025

At the September 17, 2025, NOC meeting, members reviewed the Draft 2026 Work Plan. The NOC's Fall Listening Session was held on October 29, 2025, to solicit ideas for what citizens also would like the NOC to consider in 2026. The following two additional Work Plan items are proposed based on feedback received from Listening Session attendees and public comments.

i) Runways 12L and 12R Departure Analysis

Description: Based on requests received from residents, conduct an analysis of departure activity from Runways 12L and 12R, similar to the 2025 Departure Operations Report, with a focus on reviewing location of northbound turns and trends.

j) MSP Airline Update

Description: Based on comments received from residents, airlines operating at MSP will be requested to provide updates on any recent or anticipated changes to their schedule, fleet, and routes.

The following pages include the Draft 2025 NOC Accomplishments, the Draft 2026 NOC Work Plan and the Draft 2026 NOC Meeting Dates.

If approved by the NOC, the 2026 Work Plan will be presented to the MAC Planning, Development and Environment (PD&E) Committee by the NOC Co-Chairs on December 1, 2025, at 10:30 AM.

REQUESTED ACTION

APPROVE AND RECOMMEND TO THE MAC PLANNING, DEVELOPMENT AND ENVIRONMENT COMMITTEE APPROVAL OF THE 2025 MSP NOC ACCOMPLISHMENTS, 2026 MSP NOC WORK PLAN AND 2026 NOC MEETING DATES



MSP NOISE OVERSIGHT COMMITTEE DRAFT 2025 NOC ACCOMPLISHMENTS



- Received ongoing review of MSP monthly operations reports which include aircraft noise complaints, operations, runway use, noise events, and compliance with noise abatement procedures.
- 2. Evaluated citizen input received during quarterly Listening Sessions as possible discussion topics at future NOC meetings.
- 3. Completed a <u>Fleet Mix and Nighttime Operations Assessment</u> which, in addition to evaluating fleet mix and nighttime operations, included certificated noise levels for aircraft operating at MSP and aircraft altitude trends.
- 4. Completed the 2024 MSP Complaint Data Assessment.
- 5. Pursuant to the Second Amendment to the Consent Decree, reviewed the MSP 2024 Annual Noise Contour Report published February 2025. The report noted that based on the 342,254 total operations at MSP in 2024, the actual 60 dB DNL contour is 31% smaller than the 2007 forecast contour, and the 65 dB DNL contour is 43% smaller.
- 6. Received an update from MAC's Director of Air Service Development and representatives from Delta and Sun Country about airline schedules.
- 7. Received an update from the FAA on the VOR Minimum Operational Network project and development of Area Navigation (RNAV) Procedures.
- 8. Received updates on on-going outreach activities.
- 9. Received updates on aviation-related research initiatives from FAA Center of Excellence/ASCENT, TRB, and other researchers.
- 10. Received updates from MAC Executive Director/CEO, Brian Ryks on the organization, recent accolades, trends in passengers and operations, and future development at MSP.
- 11. Elected a User and Community Co-Chair.
- 12. Reviewed status of the MSP Residential Noise Mitigation Program Implementation.
- 13. Received an overview of the Runways 12L and 12R Departure Operations Report.
- 14. Received updates on MSP runway and terminal construction projects throughout the year.



MSP NOISE OVERSIGHT COMMITTEE DRAFT 2026 NOC WORK PLAN



1. Residential Noise Mitigation Program

a) Review Residential Noise Mitigation Program Implementation Status

Description: Staff from MAC Airport Development will update the NOC on the current Mitigation Program.

2. MSP Community Relations Specific Efforts

 a) 2025 Actual Noise Contour Report and the Consent Decree Noise Mitigation Program Eligibility

Description: Each year in March, under the terms and conditions of the amended Consent Decree, MAC publishes an Annual Contour Report for the previous year. Staff will provide an update on the Contour Report and mitigation efforts underway in support of the Amended Consent Decree program.

b) MSP Fleet Mix and Nighttime Operations Assessment

Description: MSP is federally obligated to stay open 24 hours per day. Recognizing the impacts of nighttime operations, the NOC regularly assesses nighttime trends in airport operations. Reducing aircraft noise at the source is the largest factor of noise reduction. This annual assessment will review actual and scheduled nighttime operations at MSP as well as examine the current aircraft fleet mix.

c) MSP Annual Aircraft Noise Complaint Data Assessment

Description: Complaints are one of the tools the MAC uses to communicate with the community about aircraft activity and report to the NOC about concerns received from airport neighbors. This annual assessment reviews MSP complaints and households filing complaints.

d) Status of FAA Center of Excellence/ASCENT, TRB, and FICAN Research Initiatives

Description: This is an annual report on the status of scientific, engineering, and medical research literature prepared by universities, governmental organizations, and transportation boards located within the United States.

- PARTNER Partnership for Air Transportation Noise and Emissions Reduction
- TRB Transportation Research Board, which manages Airports Cooperative Research Program (ACRP)
- FICAN Federal Interagency Committee on Aviation Noise

e) Converging Runway Operations at MSP

Description: The FAA began applying new CRO mitigation strategies for both parallel runways in March 2016. The FAA will be requested to provide updates on this topic in 2026.

f) Noise Policy Review

Description: In 2021, the FAA released a summary of the research programs it sponsors on civil aircraft noise that could potentially inform future aircraft noise policy. The agency is assessing the survey results to determine if changes to the federal noise measurement methods and/or compatible land use considerations are warranted. The NOC will receive updates on this process as developments are made. The FAA will be requested to provide updates on this topic in 2026.

g) VOR-MON Program and RNAV Procedure Development

Description: In 2020, the FAA presented to the NOC information about the nationwide VOR Minimum Operational Network (MON) program. The FAA will be invited to provide an update on the status of the regional VOR network set for decommissioning, development of new procedures for MSP, the proposed timeline for these activities, and the potential impact to airport operations at MSP. The FAA will be requested to provide updates on this topic in 2026. Additionally, MAC staff will collect and analyze data before and after implementation of RNAV procedures and report findings to the NOC.

h) Guest Speaker: Brian Ryks, MAC Executive Director / CEO

Description: NOC will receive an update on the MAC organization, recent accolades, trends in passengers and operations, and future development at MSP in addition to other pertinent topics.

i) Runways 12L and 12R Departure Analysis

Description: Based on requests received from residents, conduct an analysis of departure activity from Runways 12L and 12R, similar to the 2025 Departure Operations Report, with a focus on reviewing location of northbound turns and trends.

j) MSP Airline Update

Description: Based on comments received from residents, airlines operating at MSP will be requested to provide updates on any recent or anticipated changes to their schedule, fleet, and routes.

Continue to Review Input Received from the NOC Listening Sessions as Possible Agenda and Work Plan Items



MSP NOISE OVERSIGHT COMMITTEE DRAFT 2026 NOC MEETING DATES



NOC meetings are held six times each year typically on the third Wednesday of January, March, May, July, September, and November (odd-numbered calendar months). Staff recommends the following 2026 NOC meeting dates:

- January 21, 1:30 PM
- March 18, 1:30 PM
- May 20, 1:30 PM
- July 15, 1:30 PM
- September 16, 1:30 PM
- November 18, 1:30 PM

The agenda packet for each meeting will be distributed and published two weeks prior to each meeting. An agenda review session will be arranged prior to NOC Meeting for all appointed NOC members and alternates. Each NOC meeting is scheduled to be held in the Legends Conference Room at the MAC General Office building, unless otherwise noted.

ITEM 4.1

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: GUEST SPEAKER: MAC/MSP UPDATE

BRIAN RYKS, MAC EXECUTIVE DIRECTOR/CEO

DATE: November 5, 2025

At the November NOC meeting, MAC Executive Director / CEO, Brian Ryks, will provide a MAC/MSP update to the NOC.

ITEM 4.2

TO: MSP Noise Oversight Committee (NOC)

FROM: Ryan Anderson, Manager, Community Relations

SUBJECT: RUNWAY 12L AND 12R DEPARTURE OPERATIONS REPORT

DATE: November 5, 2025

The 2025 MSP Noise Oversight Committee Work Plan directs MAC staff to conduct an analysis of MSP Runway 12L and 12R departure activity.

Airport data from 2020 through 2023 was used to examine assess the use of Runways 12L and 12R. Specifically, the following topics were researched:

- Runway Use
- Flight Frequency
- Departure Headings

The completed Runway 12L and 12R Departure Study report will be presented and discussed at the November NOC meeting.