



**MSP NOISE OVERSIGHT COMMITTEE**  
**MEETING MINUTES**  
Wednesday, March 20, 2024, at 1:30 PM  
MAC General Offices  
6040 28<sup>th</sup> 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, March 20, 2024, at the Metropolitan Airports Commission (MAC), General Offices, Legends conference room, a videoconference option was also provided. **Chair Buckley** called the meeting to order at 1:30 p.m. The following participated in the meeting:

- Representatives:** S. Alig, J. Bergman, K. Bonner, P. Buckley, C. Jacobson, J. Klinger, D. Lowman, A. Moos, L. Olson, J. Otzen, C. Swanson
- Staff:** D. Bort, K. Fisher, J. Lea, J. Lewis, K. Martin, C. Metcalfe, P. Mosites, D. Nelson, M. Ross, M. Schommer, J. Sonju, J. Welbes, E. Valencia
- Others:** G. Albjerg – HNTB, D. Butler, S. Fortier – FAA, T. Bergen – FAA, K. Gallatin – St. Paul, T. Giannini, B. Hoffman – St. Louis Park, K. Jensen, B. Korlagundi, L. Moore – Bloomington, G. Norling – Mendota Heights ARC, D. O’Leary – Sunfish Lake, B. Raker – Eagan ARC, M. Ray – Burnsville, J. Risser – Edina, Y. Xu – HNTB, S. Norling, C. Bergen, and others

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

**Community Representatives:** Alig, Bergman, Jacobson, Lowman, Olson, Swanson

**Industry Representatives:** Buckley, Fitzer, Klinger, Moos, Otzen

**1. Consent**

**1.1. Approval of the January 31, Meeting Minutes**

There were no questions.

**1.2. Reports**

**1.2.1. Monthly Operations Report: January, and February 2024**

**Carey Metcalfe, Assistant Technical Advisor**, provided the following January and February operations updates prefacing that 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 can be found on its interactive reporting website: <https://customers.macnoms.com/reports>

January	February
• Total Operations: 25,028	• Total Operations: 24,261
• Nighttime Operations: 1,466	• Nighttime Operations: 1,458
• North/South/Mixed: 44/35/15 (%)	• North/South/Mixed: 35/40/16 (%)
• RUS (Priority 1/2/3/4):37/18/.5/45	• RUS(Priority1/2/3/4): 37/18/.5/45(%)
• RJ/Narrow/Wide: 28/68/3 (%)	• RJ/Narrow/Wide: 28/68/3(%)
• Complaints: 15,349	• Complaints: 17,215
• Complaint locations: 189	• Complaint locations: 217
• Top 10 Households: 63%	• Top 10 Households: 72%
• Hours of events*: 333	• Hours of events*: 351
• Number of events*: 67,949	• Number of events*: 68,691
• R17 procedure: 99.1%	• R17 procedure: 99.4%
• EMH Corridor procedure: 95.9%	• EMH Corridor procedure: 92.1%
• Crossing procedure day: 30.7%	• Crossing procedure day: 26%
• Crossing procedure night: 32.1%	• Crossing procedure night: 33.9%
• RUS: 54.7%	• RUS: 55%

\* Aircraft sound events above 65dB.

There were no questions on this item.

**Member Jacobson moved to accept the consent agenda and Member Bergman seconded. The motion was carried by unanimous voice vote.**

## 2. Public Comment Period

**Diana Butler, 61<sup>st</sup> Street and 12<sup>th</sup> Avenue, Minneapolis**, said that she has lived in Minneapolis since 1978 and she purchased a home across the street from her parents. She mentioned that she was providing comments on behalf of her elderly mother and said that airplane noise in 2024 has been tough. It bothers her mother mostly at night as it wakes her up and she is not able to get restful sleep. Daytime noise often causes her mother to miss portions of her TV shows.

Ms. Butler said her mother's home had noise mitigation done by the MAC in 1997 and her home had mitigation work done in 1998, which was effective and stopped the windows from rattling. This year she states that windows are rattling again when aircraft pass over her house. She would like to know if airplanes are flying lower over her neighborhood than they have in the past. Ms. Butler went on to say that in a typical winter her roof has 6"- 10" of snow on it which seemed to insulate her home from the noise and reverberations of aircraft overhead and this year there has not been much snow.

Ms. Butler suggested that the MAC add a noise monitor to its property on 58<sup>th</sup> Street and 12<sup>th</sup> Avenue (by Solomon Field) to obtain more data regarding noise in the area.

**Member Olson** thanked Ms. Butler for her comments and said that the NOC's policy is not to address public comments during the meeting but as the representative from Minneapolis, she assured Ms. Butler that her concerns were heard and that she appreciated her sharing them with the committee.

## 3. Business

There were no business items on the agenda.

#### 4. Information

##### 4.1. 2023 Actual Noise Contour report and the Consent Decree Noise Mitigation Program Eligibility

**Michele Ross, Technical Advisor**, shared that the MAC prepares an Annual Contour Report, [2023 Annual Noise Contour Report](#) in partnership with HNTB, by March 1st of each year. The annual contours were developed using AEDT 3e (May 29, 2022). There is a new version 3f that was made available at the end of last year. With the date of publication being late in the year there was not sufficient time for HNTB to develop aircraft tables with the updated version. AEDT version 3f will be used for the 2024 contour.

The report was compiled and published by March 1<sup>st</sup>, per the requirements of the Consent Decree and is the 17<sup>th</sup> iteration of the report. The report provides the calculated 60 and 65 decibel Day Night Average Sound Level (DNL) based on airport operations from the previous year – including number of operations, types of aircraft, and runways used.

The report includes a comparison of the 2007 forecast contour to the previous year's actual noise contour. In 2023, the actual level of operations was 44% below what was anticipated in the 2007 forecast with 323,945 operations. In 2023, aircraft movements between 10:00 PM and 7:00 AM were about 15% below the 2007 forecast, with about 105 average annual nighttime operations. Additionally, older, louder aircraft, such as the 727 and DC-9s that were included in the 2007 modeled forecast rarely operate at MSP.

The 2023 contour grew in size from 2022 as a result of continued operational recovery. There were 4% more total operations in 2023 compared to 2022. Nighttime operations were about 11% greater in 2023 than in 2022 and Hushkit operations decreased.

The 2023 65 dB DNL contour is 4,024 acres, an increase of 17%, while the 60 dB DNL contour is 10,558 acres, an increase of 15%. The areas where the contour grew in 2023 relate both to the increase in operations as well as runway uses in 2023 compared to 2022. The south parallel runway is used more often at night especially by aircraft coming from the west coast. It is a longer runway and preferred by ATC and pilots. Runway 12R arrivals increased over 3%. It was used about 31% of the time at night for arrivals in 2023 vs about 30% in 2022. Runway 17 was used 35.5% of the time for departures in 2023 vs 26% in 2022.

The acreage of the actual contour continues to be below what was forecasted in the 2005 and 2007 contours.

The current mitigation program is referred to as the 2025-2032 program and it commits the MAC to provide noise mitigation until the year 2032. More information is available at [Residential Sound Mitigation Program](#). Eligibility for mitigation under this program remains the same as under the previous 2017-2024 program. Eligibility is based on the actual noise contour. A home becomes eligible for residential noise mitigation:

- if it is located in the 60dB DNL contour for three consecutive years.
- If it is located in a higher noise impact mitigation area than previous programs.
- If it achieves its first year of eligibility no later than 2028.

The 2023 Actual 60 dB DNL contour included 245 single-family residences and 539 multi-family units in the City of Minneapolis that met first year criteria for the 2025-2032 Program. An additional 97

single-family residences, located within the 63 dB DNL noise contour in the City of Minneapolis, met first year criteria for the 2025-2032 Program.

As of January 2024. The MAC has invested over \$513 million dollars to provide tangible noise relief for more than 16,000 single-family homes and 3,300 multi-family units around MSP. The MAC will continue to implement the mitigation program for homes that remain eligible under the 2017-2024 Program. The opportunity for eligible homes to participate in the 2017-2024 Program will sunset at the end of this year and homeowners who have not opted to participate in the program will no longer be eligible for mitigation unless they achieve eligibility based on a future contour. Of the almost 1,000 residences that were eligible to receive mitigation in the 2017-2024 program, there are 62 homes that have not participated or not opted out of the program. MAC staff are working with the City of Minneapolis to contact these remaining homeowners with a letter that will go out this summer.

The address lists and report are available at <https://metroairports.org/msp-annual-noise-contour-analysis-reports>.

**Member Olson** noted that in the past, nighttime noise has been a contributor and is more heavily weighted than daytime noise so therefore it's really impactful on the contours. She asked if that is what happened in 2023 or if there are other things that should be highlighted in terms of what is causing the contour growth.

**Ms. Ross** said the increase in the noise contour is largely driven by arrivals to the south parallel runway at night, additionally, there's a preference for pilots and air traffic control to use the south parallel runway due to its extra length. Nighttime activity, in general, drives a lot of the shape and growth of the contours. MSP also had an increase in the total number of operations in 2023, which also affected the contours.

**Member Bergman** asked why the homeowners of the remaining 62 unmitigated homes facing the sunset of the 2024 program have not joined the program and also requested clarification regarding if someone buys a home that missed the program deadline do they have any recourse.

**Ms. Ross** said that per the terms of the Consent Decree, if an eligible homeowner chooses not to participate, that impacts the property for any future owners as well. The 62 homes are still eligible to have the opportunity to participate regardless of who the original owner was. We have reached out to them numerous times and will again prior to the program ending.

**Member Olson** noted that she found it a bit surprising and concerning that the contour size increased for the first time since 2018/2019 even though the number of operations were down from that time period. She surmised it's likely due to nighttime noise and how the fleet is evolving. She reiterated the importance of best land use practices.

**Member Lowman** asked if a home's eligibility was interrupted, due to something like a major reconfiguration of the airport due to construction or something else that would change traffic flows, would they need to start the three-year eligibility period over.

**Ms. Ross** said that eligibility is based on the actual noise contour every year. She noted that there are circumstances where the contours shift like with the pandemic or due to construction.

Per the terms of the consent decree, a home has to be within the noise contour for three consecutive years.

#### **4.2. MSP Construction Updates**

**Michele Ross, Technical Advisor**, shared that there are upcoming runway construction projects and closures that will take place periodically over the next two years. This summer, Runways 12L/30R and 4/22 will be closed commencing on June 3, 2024, through September 21, 2024. Additionally, Runway 12R/30L will be closed for two six-week periods in 2025, beginning in April and again in August. The MAC is taking steps to ensure residents are aware of the projects and have the opportunity to understand and prepare for any changes they might experience. In addition to newsletters, quarterly listening sessions and regular updates to the NOC, a new runway construction webpage is available on the MAC website. <https://metroairports.org/runway-construction>

**Pat Mosites, Project Manager Airport Development**, shared more information about the construction, noting that due to a backlog of planned construction projects, maintenance items, and upgrades for runways and adjacent taxiways, the MAC has decided it would be most expedient to work on all collocated projects at the same time rather than having multiple runway closures over a period of several years. The construction schedule has been consolidated to the minimum requirement with some padding for weather considerations.

The June through September 2024 project elements include taxiway reconstruction, runway intersection reconstruction at 4/22, and 12L/30R, upgrading the electrical lighting system to LED, and replacing signs and other components. Other 2024 project elements affecting runway operations includes another phase G apron reconstruction to accommodate the future G infill being done to modernize the G Concourse. There are two projects at Terminal 2, both on the North and on the South side to add an additional four gates in order to meet increasing operations for Sun Country and other airlines operating there.

The FAA requires specific grading in areas around the runways to ensure these areas can support aircraft, maintenance and emergency vehicles. It's not a significant grading issue, but requirements need to be met. Similar work will be done on the south parallel runway next year with a small portion of pavement reconstruction and bituminous shoulder reconstruction.

Most construction work will occur during the day with very little occurring in the overnight hours. There will be more truck traffic in the area that will utilize a construction gate operating off of Bloomington Road at the Fort Snelling Golf Course area, and another gate at the south for the T2 apron construction. Existing concrete will need to be broken up and removed; residents in the adjacent neighborhoods near the north parallel may hear that during the day.

There has been extensive modeling done regarding how construction will impact airport operations. The information has been provided to ATC so they can plan to redirect traffic both in the air and on airport surfaces. The information is also provided to the airlines to reconfigure/optimize their schedules in order to minimize delays.

**Sean Fortier, FAA Traffic Management Officer, Minneapolis District**, provided updates on the upcoming operational constraints due to runway closures this summer. The FAA has been working closely with stakeholders to plan how to redirect traffic from runways 30R, 12L, and 4/22. There will

be times that demand exceeds capacity throughout the majority of the day, whereas typically that would only occur for a few hours a day. There will need to be some considerations made in order to minimize impacts.

Regarding the proposed air traffic flows that could be used during the closure, there are costs and benefits to each flow. The safest configuration that aligns mostly with the prevailing wind is going to be the determinant factor in how the arriving and departing aircraft is going to go into the air traffic flow. Typically, aircraft are able to depart with a bit more of a tailwind than what they are able to land with. Departing aircraft sometimes use a little additional power or additional runway surface to depart the airport, and so there are times when there is somewhat of a tailwind operation on departures that cannot be used on arrivals.

Demand over capacity is also a consideration, typically, there is enough capacity to meet both arrival and departure demand at the same time, however, with the north parallel runway closure, there will be periods of time where ATC may have to favor either arrivals or departures, and so that may constitute a change in configuration multiple times throughout the day.

The final determinant is which runway to use within the priority use runway system. ATC takes a look at all of those elements in order to make the best decision for a safe, efficient, and neighborly flow of the airport.

The North Flow configuration is used for arrivals to Runways 35 and 30L with departures off of Runway 30L only; this is a Converging Runway Operation (CRO) configuration. There are two arrival runways in this configuration so there is more capacity for arrivals in this scenario than for departures. This is one of the configurations that ATC may use coming onto and off of from a straight Runway 30L departure scenario with stopping arrivals to Runway 35 for a period of time in order to expedite more departures with adjustments as necessary.

The Straight North Flow is a single runway operation on Runway 30L and is the least desirable configuration for MSP. This flow has the least capacity for arrivals and departures. This configuration is used if there are very strong northwest winds and likely low ceilings and visibilities that does not allow for converging runway operations and aircraft to land on runway 35 while departing on runway 30L.

South Flow is arrivals to Runway 12R and departures off of Runways 17 and 12R, is the only configuration where two departure runways are available. Typically, there will be arrivals on Runway 12R and departures only off of Runway 17, which is a similar south flow that is used today minus the north parallel runway. ATC can switch between the two configurations if needed at times when there are excessive departure delays on days when the airport is in a south flow configuration.

Straight South Flow is a single runway operation during construction. This would be an operation where the winds are so strong that Runway 17 cannot be utilized. Atypical South Flow is used for arrivals to Runway 17 and departures off of Runways 12R and 17. This configuration is used when there is a really strong cross wind out of the southwest. Arrivals come onto Runway 17, followed by an extended taxi back to cross Runway 12R to get to Terminal 1. Due to the long taxi, and somewhat complex airspace procedure, this is not a great option and is not likely to be used very often but it is a possibility.

Mixed Flow A uses Runway 30L for arrivals and departures, and Runway 17 for departures. Runways 30/17 mixed flow is a familiar operation. This tends to be a scenario where winds are mostly calm or a slight tailwind for the departure off of Runway 17 where the arrivals will need that headwind coming in to land on Runway 30L; this would be with north or northwest winds less than 10 knots.

Mixed Flow B is used typically at night. This is a fairly good configuration to utilize for arrival and departure traffic in calm wind conditions during construction. Aircraft land on Runway 35 and depart typically on Runway 12R. There will be some long-haul carriers and large heavy aircraft that may not be able to accept an arrival to Runway 35 so there could be arrivals on Runways 35 and 12R or a combination of the two. In that scenario there would need to be a large gap made in order to bring a heavy aircraft around to land on Runway 12R. Likely the more favorable use of this configuration would be a departure off of Runway 12R at an intersection that allows the arrivals for Runway 35 to taxi back behind them. This configuration allows for a pretty good flow, and it tends to be somewhat balanced because there is a dedicated arrival and departure runway that are not crossing. This is a high priority use of the runway system, which is great, however, it requires almost no wind, which is why it is utilized a lot at night, and it would be a difficult configuration to use during the daytime if winds are more than 5 knots out of the south this option would not be able to be used.

**Member Olsen** thanked Mr. Fortier for his presentation on behalf of the NOC. She went on to say that Mr. Fortier had mentioned that ATC may move between configurations more frequently than normal and that since there is only one option that allows for two arrival runways which involves departing on Runway 30L over Minneapolis she asked if that would become a default configuration. She also asked which configurations will be used the most. She acknowledged that configuration Mixed B had some advantages but could not be utilized in winds over 5 knots.

**Mr. Fortier** stated that ATC has been going through what the priority would be given perfect conditions. MSP has a hub and spoke system and there are varying degrees of demand. There are periods of the day where arrival demand is very high with many aircraft coming in, and subsequent low departure demand. Once the inbound passengers deplane and the planes are prepped and ready for their next flights then departure demand spikes. The Mixed B configuration with calm winds scenario is a default configuration for a good throughput rate for arrivals and departures, but there are going to be periods of the day where the demand will exceed the capacity, even for that flow. Typically, the busy periods at the airport (e.g. 25 arrivals within a 15-minute period) are 7:00 A.M., 8 A.M. to 8:30 A.M., 10 A.M. to 10:30 A.M., 12 P.M. to 1:30 P.M., dinnertime, and around 8 P.M. That's when ATC will try to be as dynamic as possible in selecting the runways that will meet the demand, be it arrivals or departures. The arrival capability of the CRO configuration makes that a very beneficial configuration to be able to meet that demand period. Likewise, the departure period that we have that exceed our capacity, a south flow configuration is preferred, but overall, the calm wind scenario does provide a fairly good throughput so that is the highest priority, it's whether or not the winds will allow for it.

**Member Olson** asked if planes are departing Runway 30L, will they be using the same headings as if they were departing 30R. She remarked that some of aircraft on Runway 30L go north on headings 360, 340, 320 or 300 today. She asked if construction could result in some shifting of normal patterns because aircraft will be departing from a different runway and if can anticipate that that will probably shift the location of aircraft that would have typically used Runway 30R for departure.

**Mr. Fortier** replied in the affirmative, that there will be a shift in those departure points coming off of the south parallel runway, though ATC will still utilize the same headings that they normally utilize today. However, aircraft would shift slightly to the southwest.

**Member Olson** asked how ATC plan to provide safe operations when operations exceed capacity due to reduced runway availability.

**Mr. Fortier** replied that similarly to when MSP is impacted by summer thunderstorms or some other type of constraint, there will be periods where arrivals will need to be limited. Air traffic management initiatives will be put in place affecting airports across the country for traffic inbound to MSP in order to ensure that the arrival acceptance rate is not exceeded. Other mitigations can be applied in the form of a ground stop, where aircraft are completely stopped, a ground delay program where there's an extended period of time where an aircraft will get a time that they can be released to be in the air and arrive at the airport in a flow that will meet the demand. And there is also what is called mile in trail restrictions between aircraft as they come across the country and air traffic control will vector aircraft and put that mile in trail between them so that they blend in and come into the airport at a continuous flow. ATC also has automated equipment that is utilized to bring aircraft into the airport. ATC has a system that's called time base flow management.

The system assigns an actual metered time to each aircraft to arrive at the field at an exact minute, based on the speed of the aircraft, its altitude, the winds aloft, it takes all of those factors into play, and then measures capacity and distributes delays evenly in order to bring the aircraft into the airport in an established flow. If the airport is in a period of demand exceeding capacity, aircraft may experience turns in the airspace to get to that mile in trail configuration, or they may experience delays on the ground at their departure airport. Likewise, departure delays are handled in a similar fashion where there may be periods when a departure stop is used, or aircraft will be parked in certain parts of the airfield in order to keep operations from getting overly congested. Occasionally there may be a throughput issue where aircraft are coming in at a faster rate than those that depart out, like when trying to get into an event and there's no parking available, aircraft will be delayed from coming in to allow traffic to get out. Also, at times aircraft are not able to get out of the gate fast enough, and there are no gates available, that situation is mitigated with delays on either side as well. There are also weather events that disrupt the flow coming into and out of the airport. Thunderstorms occurring throughout the day tend to push the traffic later into the evening. If operations are already over capacity, it may compound the effect where operations are pushed later into the evening for arrivals coming into MSP. Keep in mind that even though it may be a sunny day here, it could be very stormy elsewhere.

**Member Olson** reiterated that it's not clear what the noise impacts of the runway reconfigurations will be. Some communities may notice a big impact throughout the summer process, even communities that typically do not experience a lot of aircraft noise. Also, summer is a time when aircraft typically fly lower and with the change in fleet mix there are larger, and potentially noisier, aircraft at MSP. She thanked Mr. Fortier for doing everything possible to keep flights away from shoulder, or nighttime hours and for ATC doing the best they can to vary flight routes over residential space and using commercial corridors as much as possible.

**Member Olson** also thanked Mr. Mosites for his construction update as well as being mindful about keeping the construction noise to a minimum, especially at night-time. She asked that residents be notified in advance of any potentially loud construction noise timelines. She went on to say that if



Runway 17 is used for arrivals the noise will affect residents that are not typically engaged with the NOC or MAC's Community Relations, so we need to think about how and when we reach out to them.

**Member Lowman** asked if similar work will be done on other runways.

**Mr. Fortier** replied that the south parallel runway be closed next summer for a couple of different projects. That closure is not anticipated to be as impactful as this summer's projects because construction in 2025 only involves one runway. Also, there will be time gaps in those projects, so it will not be continuous construction next summer like it will be this summer. The north parallel runways may need attention again in five years for additional pavements that are reaching their useful life. But that gives us five years to plan and model it.

**Member Lowman** said that it is important to communicate to the public that the intent is to be as efficient as possible with timing in order to create the smallest impact on residents, and other stakeholders. He went on to say that regarding air traffic flows, it would be interesting to do a comparison over time with the alternate flow configurations so that we know what to expect if we have a future use for them as well as how to communicate that to residents. The commerce aspect of the morning and evening traffic comparisons would be helpful as well.

**Member Bergman** remarked that having had the privilege his work for 35 years he can attest that this is a well-choreographed, well-run, safe, operation. He stated he has witnessed first-hand both sides of the runway as well as in and around the terminal. He also noted that aircraft are a lot quieter today than they were when he began his career. He went on to say that he thinks that the projects are necessary, and he has faith in the operation.

## 5. Announcements

**Michele Ross, Technical Advisor**, shared that the Spring Listening Session in April will be held at the City of Edina, City Hall instead of at the MAC's general offices and the Summer Listening Session in July will be held at the City of Eagan, City Hall.

### **NOC Spring Listening Session**

Wednesday, April 24, 2024 @ 6:00 pm

Location: Edina City Hall

[Listening Session website](#)

### **May NOC Meeting**

Wednesday, May 15, 2024 @ 1:30 pm

Location: MAC General Offices, Legends conference room + Teams

## 6. Adjourn

**Chair Buckley** thanked the members of the Committee, NOC staff, and residents in attendance. The meeting was adjourned at 2:55pm.