



## Metropolitan Airports Commission (MAC)

**Minneapolis-St. Paul International Airport (MSP)  
Noise Oversight Committee (NOC)  
MAC General Office Building  
Lindbergh Conference Room  
6040 28<sup>th</sup> Avenue South  
Minneapolis, MN 55450**

### **NOC Committee Members**

Dianne Miller – Co-Chair, City of Eagan Representative (City of Eagan)  
Jeffrey Hart – Co-Chair (Delta Air Lines)  
Ryan Barette – Minnesota Business Aviation Association Representative  
Kyle Bronowski – At-Large Airport User Representative (Endeavor Air, Inc.)  
Pam Dmytrenko – City of Richfield Representative (City of Richfield)  
Andrew Johnson – City of Minneapolis Representative (Minneapolis City Council)  
John Klinger – Chief Pilot Representative (Delta Air Lines)  
Todd Lawrence – Charter/Scheduled Operator Representative (Sun Country Airlines)  
Tom Link – At-Large Community Representative (City of Inver Grove Heights)  
Dwayne Lowman – City of Bloomington Representative (Bloomington City Council)  
Jay Miller – City of Mendota Heights Representative (Mendota Heights City Council)  
Angie Moos – Cargo Carrier Representative (United Parcel Service)

### **MEETING AGENDA**

May 16, 2018 at 1:30 pm

MAC General Office Building  
Lindbergh Conference Room

*(Dianne Miller, City of Eagan, will be the acting Chairperson for the meeting)*

**\*Note:** 1:00 to 1:30 – Committee Agenda Review Session  
(NOC members only in the Coleman Conference Room)

1. 1:30 – 1:35 Review and Approval of the March 21, 2018 Meeting Minutes
2. 1:35 – 1:50 Review of Monthly Operations Reports: March and April, 2018
3. 1:50 – 2:30 NOC Bylaw Subcommittee Recommendations
4. 2:30 – 3:00 Evaluate Mendota Heights Airport Relations Commission Runway 12L  
Departure Proposal
5. 3:00 – 3:20 Review and Discuss Runway Use System Priorities
6. 3:20 – 3:30 Update on the FAA's Survey to Re-Evaluate Noise Measurement  
Methods
7. 3:30 – 3:40 Review of the Spring Listening Session
8. 3:40 Public Comment Period
9. Announcements
10. Adjourn



**MSP NOISE OVERSIGHT COMMITTEE**  
**DRAFT MEETING MINUTES**  
 Wednesday, 21st of March 2018 at 1:30pm  
 MAC General Office  
 Lindbergh Conference Room

**Call to Order**

A regularly-scheduled meeting of the MSP Noise Oversight Committee, having been duly called, was held Wednesday, 21st of March 2018, in the Lindbergh Conference Room at the MAC General Office. Chair Hart called the meeting to order at 1:31pm. The following were in attendance:

**Representatives:** D. Miller; J. Hart; R. Barette; M. Regan Gonzalez; L. Olson; J. Klinger; J. Rokala; T. Link; D. Lowman; J. Miller; A. Moos

**Staff:** D. Nelson; B. Juffer; A. Kolesar; J. Lewis; C. Boyd

**Others:** M. Nolan – City of Edina; A. Nemcek – City of Rosemount; J. Winngar – FAA; J. Heilmann - FAA; S. Fortier – FAA; L. Moore – City of Bloomington; M.E. Eagan – HMMH; D. Sloan – City of Mendota Heights; B. Hoffman – City of Saint Louis Park; D. Langer - FAA; P. Martin – City of Bloomington; M. Brindle – City of Edina; M. Sands – FAA; S. Kittleson – MSP FairSkies

**1. Review and Approval of the January 24, 2018 Meeting Minutes**

**Chair Hart, Delta**, asked if there were changes to the January Meeting Minutes, there were none and approval was moved by **Co-Chair Miller, Eagan**, seconded by **Representative Lowman, Bloomington**, and passed unanimously.

**2. Review of Monthly Operations Reports: January and February, 2018**

**Brad Juffer, Assistant Technical Advisor**, reported to the group that MACNOMS recorded 30,703 operations in January 2018 and 30,000 operations in February 2018. The January count is a 3.7% reduction from 2017 while the February count saw an increase of 0.6%. Much of the January reduction was tied to the 12.5" of snow recorded at MSP on 1/22/18. A typical Monday sees about 1,100 operations, on that day only 353 flights used the airport. February's count was buoyed by Super Bowl traffic. The Monday after the Super Bowl, for example saw 1,390 operations at MSP.

**Juffer** reported 1,865 nighttime flights during January and 2,072 in February. The January total was 2.3% lower than 2017 while the February total was 26% higher. While the Super Bowl traffic

has been well documented, there were also extra night flights on Feb 19 due to an extended round of freezing rain playing havoc on the schedule and pushing flights into the nighttime hours.

The snow storm on 1/22 caused for an unusual runway configuration. 171 of the 173 departures from Runway 4 in January were on Jan 22. This is 150 more than the total for all of 2017. All 21 departures from Runway 35 for January also happened on Jan 22.

**Juffer** then reported on runway use in January and February, noting that 67% of all arrivals used 30L/30R or 35 and 33% of arrivals used 12L or 12R. Departures did not see the same split between north and south runways. Only 54% of all departures used Runways 30L or 30R while nearly 46% used 12L/12R or 17.

The discrepancy between arrival and departure usage is explained by the flows in January and February. The flow for the past two months was roughly 40% in a North, 30% in a South and 20% in a Mixed. Mixed Flow use in January was 21% while February remained high at 18%. In terms of percentage, 21% in January was the highest use of Mixed Flow in the past 4 years. February's 18% was the 3rd highest monthly total. Mixed flow is used most frequently when the winds are out of the Southwest between 210° and 280° peaking when the wind is reported at 240°. Mixed flow configuration has been employed 60% of the time the winds are reported from that specific direction since the beginning of 2017. In summary, the 249 hours spent in Mixed Flows resulted in a high RUS number for February 2018 and a record breaking RUS number in January 2018.

**Representative Olson, Minneapolis**, asked if the Mixed Flow being referenced was Mixed Flow A or Mixed Flow B. **Juffer** responded that this particular flow is Mixed Flow A and he added that it is the flow used majority of the time. In addition to that, the 249 hours spent in Mixed Flow for January and February of 2018 was 100% Mixed Flow A. **Juffer** added that moving forward, Mixed Flow B flows will be noted.

**Juffer** reported the fleet mix, the split of carrier jets for January and February was 40% regional jets, 57% narrow body aircraft, and 3% widebody aircraft. The CRJ-200 remains the most used aircraft type at MSP and is also one of the quietest carrier jets at the airport. The MD-90 is the second highest used narrowbody aircraft and is also quiet relative to its certificated limit. Often confused with the MD-90 is the MD-80. The MD-80 is the loudest single aisle aircraft still operating at MSP and its use was down to 0.7% for January and February of 2018. For the first quarter of the year, Delta has removed the MD-80 from the MSP schedule. For reference, there were 385 MD-80 operations in January and February and 350 A320-NEO and B737MAX operations.

Regarding complaints, **Juffer** reported 186 locations filed complaints in January and in February they were from 176 locations. In 2017 those numbers were 209 for January and 318 in February. Those locations filed 5,834 complaints in January and an additional 6,018 complaints about MSP flights in February. The 11,852 complaints is a combined reduction of 7,617 complaints from the same months in 2017. There were 124 unique areas that filed a complaint in January; 95% of those areas had between 1 and 3 locations submit a complaint. In February we received a complaint from the city of Andover about a C-130 arrival. In addition to Andover, there were 112 additional areas that filed a complaint in February; 95% of those also were in the low density category of 1-3 locations per area. Combined for January and February, ten locations filed 2/3

or 68% of all complaints. Eight of those locations were also in the top 10 for **Juffer's** last briefing to the NOC. The remaining two locations were previously the 11<sup>th</sup> and 12<sup>th</sup> locations. Overall, 69% of all locations filed 10 or less complaints thus far in 2018.

**Juffer** reported on sound monitoring, aircraft events occurred for 291 hours in January and roughly 261 hours in February. This is a 26% reduction in the time above 65 attributable to aircraft thus far in 2018. A time reduction is naturally accompanied by an event reduction; the 61,100 events for January and 57,700 events in February are nearly 31,000 fewer events than the same months in 2017.

Regarding the noise abatement procedures, **Juffer** reported that the Runway 17 Departure Procedure compliance was consistent at 99.3% in January and 99.5% in February; a total of 57 jets turned westbound early. The Egan/Mendota Heights Corridor Procedure compliance was 91.0% in January increasing to 96.4% in February. The Crossing-in-the-Corridor Procedure was used during the day 28% of the time in January and 30% in February. This procedure was then used 37% (93 flights) of the time at night in January and 43% (52 flights) of the time in February.

The use of high priority runways, according to the Runway Use System, in January was an all-time high at 57.1% accomplished by placing 71% of all arrivals on 30L, 30R, or 35 coupled with 43% of all departures on 12L, 12R, or 17. February receded from that high, but still finished at 55.3%, the 4<sup>th</sup> highest total in the past four years.

**Representative Lowman, Bloomington**, asked about the impact of climate change on noise abatement and runway configuration and if the MAC staff is tracking that information. **Juffer** responded that when the Annual Long Term Comprehensive Plan is done, an analysis of the last 10 years of wind data is included. Beyond that, Juffer wasn't aware of other analyses that were completed but will check internally and report back at the May 2018 NOC meeting.

**Chair Hart, Delta**, thanked the FAA for their continued high compliance with RUS as well as compliance in the Mixed Flow A.

### 3. Response to MSP FairSkies Requests

**Chair Hart, Delta**, introduced the topic and asked if there was anyone from MSP FairSkies present that would like to first make a comment. Steve Kittleson, MSP FairSkies, announced he was present and had no comment.

**Dana Nelson, Technical Advisor**, recapped that at the September 2017 NOC meeting the Committee was presented with three requests from MSP FairSkies. At the January 2018 meeting, the first two items were discussed at great length and the third was tabled for the March 2018 meeting.

**Nelson** restated the requests and gave a summary of the discussion and decisions to-date.

- Enhance the NOC with greater stakeholder (citizen) representation

There was support from the NOC to keep the group membership the way it is today, six user group representatives and six community member representatives. The balance has served the Committee well and has led to industry-recognized accomplishments. The Committee did recognize the stringent bylaws and decided it was time to review the bylaws in consideration of encouraging greater participation from the public. At the January 2018 NOC meeting, the

Committee created a subcommittee to review and evaluate the bylaws. They would then offer recommendations to enhance community participation and involvement and change the long standing bylaws to reflect actions. **Nelson** reported that the NOC Bylaw Review Subcommittee met once in February and came out of the meeting with bylaw change ideas and potential work plan items. The group will meet again in the beginning of April, and bring final recommendations before the NOC at the May 2018 meeting.

- Establish a goal to reduce noise

This conversation took majority of the January NOC meeting and the Committee decided to take action to solidify the noise mitigation goal: *provide residential noise mitigation out to the 60 dB DNL noise contour by the year 2024*. **Nelson** discussed that in comparison to other US airports, this goal is no small feat and a large amount of staff time, resources and funding is spent on providing residential noise mitigation. There was also agreement that although the Committee made this goal, it does not preclude them from having this conversation again in the future. **Nelson** mentioned on that point that there is a MSP Noise Management Benchmarking Study on today's agenda. Among other things, the study would evaluate whether other airports and/or committees similar to the NOC are establishing noise reduction goals and if so, what the goals are and how they are achieved. The study would also look at best practices that would be beneficial for the MAC and/or the NOC with due regard to the constrained regulations for US airports.

- Publish the 55 dB DNL and N65 noise contours and NEMs

**Nelson** outlined two potential objectives that publishing such noise contours would perhaps achieve: (1) Help advance a more restrictive federal noise metric/threshold before FAA returns to MSP for Area Navigation (RNAV) departure implementation; or (2) Acknowledge and validate that residents who live beyond the 60 DNL noise contour experience aircraft overflights and noise.

**Nelson** reported on the last objective that the majority of MSP noise complaints come from areas outside the 55 dB DNL contour, so when discussing concerns from the community, consideration should be paid to the fact that even a larger contour would not encompass a majority of the recorded noise complaints.

When taking a look at the above objectives, **Nelson** presented a slide with some considerations for the Committee to discuss. First, are there relevant situational factors? On this point, **Nelson** mentioned the FAA's current evaluation of its 65 dB DNL noise metric and threshold. Second, are there any unintended consequences/risks that should be considered? During previous NOC discussions about this topic, concerns were expressed by the Committee members about setting expectations in the community for noise mitigation within the 55 dB DNL contour, something that the NOC nor the MAC would be able to accomplish. Lastly, do the proposed tactics provide the most effective means to achieve the objectives? **Nelson** mentioned on this point that the NOC consider the tools in our toolbox to best achieve the objectives in a responsible and smart manner. **Nelson** pledged to take ideas from the NOC, provide staff's technical expertise, data, and tools to communicate to residents that they are heard and we understand there are concerns from residents beyond the current mitigation area. **Nelson** ended the presentation with the specific request.

**Dwayne Lowman, Bloomington**, reiterated the question about the purpose of reporting the 55 dB DNL contour. **Lowman** recommended the Benchmarking Study be used to see what other airports are doing in the US, then bring it back to the Committee to ask whether the 55 dB DNL contour is the right number. **Tom Link, Inver Grove Heights** reported that the At-Large Communities generally support publishing the 55 dB DNL contours, with the thought that it would be used to provide more information and education to the public and to recognize that there are noise impacts beyond the current mitigation area.

**Co-Chair Dianne Miller, Eagan**, asked what the status is of the current FAA's study on the 65 dB DNL metric and threshold. **Nelson** reported that the FAA's effort to update the aircraft noise-annoyance data that they've used in the past to base the 65 dB DNL threshold. In 2015 the FAA started a survey around 20 US airports to assess the public's perception on aircraft noise. The survey has been completed, but the findings have not yet been released and there is no timeline for releasing the data. The FAA plans to report the findings, without discussion about potential policy changes, and open it up for public input. The report would explain the purpose of the survey, the scientific methodology and the results. Given the federal policies around aircraft noise impacting many stakeholders and agencies, **Nelson** estimates the policy discussion is likely to be several years long.

**Loren Olson, Minneapolis**, reported that the City of Minneapolis supports publishing the contours. There are many people who are requesting it, there is national dialog about 55 dB DNL and the Committee should not be afraid of looking at the maps. **Olson** acknowledged the real concerns that communities have about giving the wrong impression to residents or sending the wrong message to FAA about expanding our program in a way that makes them uncomfortable in what we're doing today. In this case, we have to err on the side of transparency and the NOC can control the narrative about looking at such maps.

**Lowman** said there is a real need to educate the public and we should continue to look into that. He then asked whether 55 dB DNL is the right contour to be looking at. The question is what is the purpose we are trying to achieve – if its education, is this the right means? It would be helpful to see where we fit in the whole scope of what other airports are doing.

**Miller** shared concerns about expectations from residents for mitigation in the 55 dB DNL contour. On the topic of transparency, she noted that the information is available to MSP FairSkies and the MAC nor the NOC would not stand in the way of them obtaining the data to make their own maps or for their own analyses. **Miller** also mentioned her concerns about getting out ahead of the FAA's process particularly because we have a mitigation program at MSP that no other airport has and we need to hold on to that because it's so important and something that we should celebrate. **Miller** explained that at this point she would not be in favor of the NOC publishing a 55 dB DNL contour, but if we could get the data to MSP FairSkies, that is a good step to take.

**Olson** requested that the Committee give Mr. Kittleson, MSP FairSkies and opportunity to speak on the topic.

**Kittleson, MSP FairSkies**, expressed his appreciation to speak. He said the information provided to MSP FairSkies in the past has been appreciated, but it was not a guarantee that they would receive it. **Kittleson** then brought up two points: (1) MSP FairSkies is not the NOC or the MAC and he is not quite sure why they have to do their job. That said, we appreciate getting the data, but there is no guarantee. If they could get the data, then they would

absolutely be sure to create their own maps; (2) residential noise mitigation has never been our goal. We are not trying to expand the mitigation program.

**Kittleson** stated that in the past the NOC and MAC have been leaders in the nation, and they can be again by updating the way noise is measured and tracked and lead the industry when it comes to best practices. He said he understands there is a benchmarking study, but he doesn't think the NOC should follow, it should lead.

**Kittleson** also mentioned that the residents he has spoken to within the mitigation area do not feel they have the right or ability to submit noise complaints and that may be why the majority of complaints come from outside the mitigation area. That doesn't mean the pain has gone away or that the noise has gone away. Where noise complaints are coming in are by residents who don't have noise mitigation, by offering the 55 dB DNL contour, the NOC is being transparent and looking at what their pain is.

**Lowman** asked that from a transparency perspective, is 55 dB DNL the right transparency? He recommended that the Committee should first look at what the benchmarking results would show. He also said that if we decide to provide the data to the public, we should do that on an ongoing basis.

**Hart** asked for verification from MAC staff that there is no reason why the 55 dB DNL contour data would cease to be available and sent to the public upon request in the future.

**Nelson**, responded that the data is public, so anyone who requests it would fill out a Data Disclaimer Form, then staff would transmit the data to them. This has been done with MSP FairSkies since 2013. **Nelson** explained the data transmitted last year went through the Minneapolis NOC representative, which may be causing consternation and the perception that we are not being as transparent. This was done as a matter of protocol since the request for the data went to the NOC rather than MAC staff. **Nelson** stated that she proactively sent the Data Disclaimer form to MSP FairSkies to transmit the data once the contour report was published. She said she will continue to provide that to them in the future.

**Nelson** also addressed the point raised about providing mitigation out to the 55 dB DNL contour and that a decision like that is not within the purview of the NOC nor the MAC. The FAA would have final authority on mitigating to that level, even if airport-generated revenue was used to fund the program. This was also the case for the Consent Decree mitigation program out to 60 dB DNL. **Nelson** also said that to-date the FAA has not approved residential mitigation programs out to the 55 dB DNL contour at other airports. **Lowman** said that is particularly the reason why he is concerned about publishing the data because of the expectation it will create in the community. He said he is in favor of being as transparent as possible, so we should get that data to those requesting it.

**Ryan Barette, MBAA**, agreed that incremental steps seems like the best way to go. The data could be provided to MSP FairSkies and then NOC can have the opportunity to evaluate the Benchmarking Study results.

**Maria Regan Gonzalez, Richfield**, expressed the City of Richfield's perspective is that publishing the noise contours would create confusion and raise expectations for additional mitigation for residents. Also, this is not the right timing with the FAA's current study as well as the Benchmarking Study currently underway which would provide more information before

this decision should be made. If part of the goal is to acknowledge that noise does go out further than the current contours, there are better ways this could be communicated.

**Olson** clarified that last year the data for the 55 dB DNL contour came from her because she filled out the Data Disclaimer Form immediately when she knew the report was completed because she wanted to provide it to MSP FairSkies. There may have been confusion, but it only came from her because she got the paper completed and submitted.

After no further discussion, **Hart** requested a motion to be made for Committee action.

**IT WAS MOVED BY REPRESENTATIVE OLSON AND SECONDED BY REPRESENTATIVE LINK TO PUBLISH THE 55 DB DNL AND N65 CONTOURS AND NEMS.**

**The vote was 10-2 against; motion failed.**

#### **4. MSP Noise Management Benchmarking Study Scope**

**Dana Nelson, Technical Advisor**, introduced the benchmarking study and noted that it came to be as a result of a NOC dialogue to assess noise management programs at comparably sized airports. Nelson introduced **Mary Ellen Eagan - President and CEO of HMMH**, the consulting company that will be doing the benchmarking study.

**Mary Ellen Eagan, HMMH**, described who HMMH is and the proposed approach for the benchmarking study. HMMH was formed in 1981, specifically to provide airport noise related consulting services. To this day, 2/3 of the work done by HMMH is related to aviation noise; this includes Part 150 studies at about 80 airports in the country, environmental assessments, environmental impact studies, Part 161 regulation studies, and noise monitoring studies. **Eagan** continued by elaborating on her 34 years with HMMH, she is the current Noise Working Group Industry Co-chair and the current US Representative to the ACI World Standing Committee on Noise. The most recent research study her consulting practice was a part of is the ACRP study on the impact of aircraft noise on children and learning.

**Eagan** said her group understands there are three basic objectives to the benchmarking study: to understand the constraints imposed on U.S. airport noise programs due to the highly-regulated environment in contrast with airports in other countries, to provide an independent and transparent review of the MAC Noise Program Office and related noise abatement activities as compared with peer airports in the U.S., and to identify improvement opportunities for the MAC Noise Program Office and MSP NOC.

The scope is broken into six tasks:

- Task 1: Identify noise program components and activities to benchmark
- Task 2: Develop data gathering strategy to include an airport survey and process for identifying a cohort of peer airports
- Task 3: Data collection
- Task 4: Data analysis
- Task 5: Draft report
- Task 6: Final report



**Eagan** addressed the NOC and said she would like feedback on which activities are the most important to include on the benchmark. Identifiable activities may include operational measures, mitigation and land use measures, program management and innovative use of technology, stakeholder engagement, and research and policy. These will be things to consider when developing the survey however sensitivity needs to be taken to its length, too long and people won't complete it. **Dwayne Lowman, Bloomington**, said he would like to know where the noise contours would fall. **Chair Jeff Hart, Delta**, said he would like to know about runway use systems and operational tactics to reduce noise. What other airports are doing and how stringent they are within their relationship with the FAA to meet compliance. **Maria Regan Gonzalez, Richfield**, asked if there was just a survey or if a policy review would be included. **Eagan** responded that the report will include contextual material on how the airport operates, the regulatory background, and the constraints. **Tom Link, Inver Grove Heights**, said that the two tasks that stood out to him were program management and stakeholder engagement because those seem to be the two things the NOC can control the most. **Loren Olson, Minneapolis**, said she would like to see a focus on what peer airports are doing with their operational measures and land use, then see what the NOC learn from them and explore better practices. **Co-Chair Dianne Miller, Eagan**, added that she would like to find airports with comparable residential properties as close as possible to the airport.

**Eagan** thanked the NOC for the feedback and said the next step will be to formulate an online survey utilizing industry association mailing lists from ACI and AAAE. The draft and final recipient list will be reviewed with MAC staff prior to execution. In an effort to create a higher level of response, HMMH will offer to assist each person in filling out the survey. Data collection will be fairly straight forward and will then be categorized based on responses. The draft report will include a summary on the background, study findings, methods, recommendations, and this report will be reviewed with the NOC. The tentative plan for that meeting is at the July 2018 NOC meeting. The final report would then be presented at the September 2018 meeting. **Gonzalez** added that the stakeholder engagement piece is really important and as such, knowing what demographics are taken in to account. It is important to know where residents live in proximity to the airport, their socio-economic status, race and ethnicity, and if the residents are home owners or renters. **Lowman** said he didn't know if the timeline would allow it but would be interested in seeing the survey before it goes out. **Dana Nelson, Technical Advisor**, said the survey could go out to NOC members but due to time restrictions, it would have to be via email. **Link** asked what the typical response rate is. **Eagan** responded that it depends on many factors but an incentive they're offering is to make sure airport participants know that they will receive a copy of the results for their participation. **Chair Hart, Delta**, presented the motion to approve the scope as designated by HMMH for the benchmarking study. It was seconded by Jay Miller, Mendota Heights, and passed unanimously.

## 5. 2017 Annual Noise Contour Report and Mitigation Study

**Dana Nelson, Technical Advisor**, announced the Annual Noise Contour Report for 2017 is complete and has been released. The Consent Decree requires that the MAC prepare this report annually and release it by March 1<sup>st</sup>, this year's report was released on February 28<sup>th</sup>, 2018. The 2017 actual noise contour was developed in partnership with HNTB and using Aviation Environmental Design Tool (AEDT), the FAA's noise monitoring tool.

**Nelson** continued by highlighting a few 2017 statistics and how they compared to the statistics of 2007. There has been a 28.6% reduction from the 2007 forecast operations. The 2007

forecast showed an average of 274.9 Hushkit flights per day; in reality one Hushkit Stage 3 operates every 10 days, on average. Nighttime operations in 2017 decreased by about 3.2 daily operations from the 2007 forecast number. The 2017 actual noise contour is smaller than the 2007 forecast by about 27% in the 60 DNL contour and by about 38% in the 65 DNL contour. Even with this contour reduction, there are two areas that the contour has extended beyond the 2007 forecast contour, **Nelson** provided a map to illustrate one area in southwest Minneapolis and the other in Eagan/Inver Grove Heights.

**Nelson** then showed a map illustrating the difference of noise exposure in 2017 compared to 2016 and noted 2017 had more balance between North Flow and South Flow operations compared to the previous two years, this is due to FAA's effort to refine traffic management during Converging Runway Operations (CRO).

**Nelson** went on to give an overview of the mitigation eligibility per the amended Consent Decree. The current program will provide mitigation to eligible homes until 2024 based on actual noise exposure of 60 dB DNL, 5 dB DNL further into the community than the federal threshold of 65 dB DNL. To qualify, homes must (a) be in a community that has adopted local land use controls and building performance standards to ensure the practices are consistent with the noise mitigation provided by the MAC and (b) be located for three consecutive years in the actual 60 DNL noise contour and within a higher mitigation area when compared to the original program.

The MAC will provide two different packages depending on the exposure area, one is the Full 5dB Reduction Package and the other is the Partial Noise Reduction Package. MAC will provide mitigation to homes the year following eligibility determination and at the time of this meeting, the only residential properties that meet criteria are located in Minneapolis. To illustrate the locations, **Nelson** showed a map of the contour and the blocks in Minneapolis that have received previous mitigation, blocks that are eligible in 2017, 2018, 2019, and blocks that have potential eligibility beyond 2019. **Nelson** reported that a total of 421 single-family homes are part of the 2017 and 2018 mitigation programs. The 2017 annual noise contour qualified an additional 430 homes for mitigation in 2019. For the first time, there are a few blocks in Eagan and Inver Grove Heights that have met year one of candidate mitigation eligibility. The MAC will reach out to homes that have met eligibility requirements. This report information is available on the MAC Noise website.

<http://www.macnoise.com/noise-mitigation-program>

## 6. Vortex Generator Noise Monitoring Study

**Dana Nelson, Technical Advisor**, reported that the 2017 study started on August 30, 2017 and ended on October 12, 2017 with a noise monitor in West Bloomington. There were a total of 9,181 total noise events recorded, 4,033 correlated to MSP aircraft operations and 3,527 were arrivals. There were 453 noise events correlated to Airbus A320 family arrivals, excluding United Airlines because they stated they are retro-fitting aircraft with the vortex generators and the timing for their retrofit program is not public. In total, 29 operations were determined to be equipped with vortex generators and 424 were non-equipped.

The vortex generator data had max noise level differences from -0.4 to +1.6 dBA, SEL noise level differences from -1.0 to +1.2 dBA and average duration from -1 to +5 seconds. When taking aircraft noise measurements from the ground during this phase of flight, staff found the measured aircraft noise events struggled to exceed the ambient noise level in the community.

Therefore, quantifying the noise reduction benefits provided by these devices from the ground becomes extremely difficult.

**Nelson** reported study limitations, including the low threshold settings required to collect aircraft arrival events between 5,000 and 9,000 feet in altitude, which resulted in noise level data that was impacted by louder community events; and the small sample of vortex generator-equipped aircraft operations that were available to analyze.

**Chair Hart, Delta**, clarified that even though the noise monitor was placed on top of the roof of a maintenance building, that it still had a hard time picking up noise beyond the ambient noise. **Nelson** confirmed that was correct and added that two noise monitors were deployed, one at the Como Golf Course in Saint Paul but that one was pulled because it was primarily picking up community noise events.

#### 7. Super Bowl Activity Debrief

**Brad Juffer, Assistant Technical Advisor**, reported increases in airport operations above average levels from previous years during Super Bowl weekend. There were some increases on Friday and Saturday, not too many on Super Bowl Sunday, but the big increase was on Monday after Super Bowl. During the game there was a Temporary Flight Restriction (TFR) in place, which led to a drop in operations. Then a steep increase in operations occurred from 10PM-1AM Monday morning and picked up again at 7AM on Monday morning through the rest of the day. The increase in operations did not bring an increase in noise complaints. The Noise Office heard from residents that while it was a nuisance, they knew in advance that it was occurring and they knew it was temporary. There were 20 locations that filed complaints associated with MSP on Sunday and 26 locations that filed on Monday; 237 complaints were filed in those 2 days.

**Loren Olson, Minneapolis**, thanked MAC staff for their effort to communicate to the public in advance of the Super Bowl.

#### 8. Review of the Winter Listening Session

**Dana Nelson, Technical Advisor**, reported that the Winter Listening Session was in January at the Mount Olivet Lutheran Church in Minneapolis. There were 40 residents in attendance and the majority of residents were from Minneapolis and Edina. The meeting was also attended by MAC staff, FAA, MAC Commission members, Minneapolis and Bloomington City Council Members, NOC members, Minneapolis Staff members, and people from Metropolitan Council. The conversation revolved around a number of topics including MSP nighttime operations, runway arrivals and departures, noise monitoring, DNL contours and metrics, RNAV, and the MSP FairSkies request of the NOC.

#### 9. Public Comment Period– None

#### 10. Announcements - **Dana Nelson, Technical Advisor**, made note of the Spring Listening Session on Wednesday, April 25, 2018 at the MAC General Office and the next NOC Meeting will be Wednesday, May 16, 2018 at 1:30pm.

**John Klinger, Delta**, announced that some of the MD-80 series aircraft will be retiring from Delta's fleet and those that aren't, are mostly moving south to the Atlanta, GA area.

## **11. Adjourn**

A motion to adjourn was requested by **Chair Hart, Delta**, moved by **Representative Olson, Minneapolis**, and seconded by **Co-Chair Miller, Eagan**.

The meeting adjourned at 3:11 p.m.

The next meeting of the NOC is scheduled for Wednesday, 16<sup>th</sup> May, 2018.

Respectfully Submitted,  
Amie Kolesar, Recording Secretary

# MEMORANDUM

**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Bradley Juffer, Assistant Manager—Noise, Environment & Planning

**SUBJECT:** **REVIEW OF MONTHLY OPERATIONS REPORTS: MARCH AND APRIL, 2018**

**DATE:** May 2, 2018

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:

<https://www.macenvironment.org/reports/>.

At the May 16, 2018 NOC meeting, MAC staff will provide a summary of this information for the months of March and April. To view these summary reports prior to the meeting, visit the Archives section at the link above.

# MEMORANDUM

**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Dana Nelson, Manager—Noise, Environment & Planning

**SUBJECT:** **NOC BYLAW SUBCOMMITTEE RECOMMENDATIONS**

**DATE:** May 2, 2018

A topic of discussion at the last four NOC meetings has been the MSP FairSkies Coalition requests made before the Committee in September 2017. Detailed discussions in consideration of these requests resulted in actions taken by the Committee; one of which was the creation of a NOC Bylaw Review Subcommittee in an effort to facilitate greater citizen input.

The creation of the NOC Bylaw Review Subcommittee was in response to the first request of MSP FairSkies to “Enhance the NOC with greater stakeholder (citizen) representation”. During the January 24, 2018 NOC meeting, Committee members recognized the importance of a balanced forum for discussing aircraft noise issues at MSP. It was noted that the NOC’s predecessor, the Metropolitan Airport Sound Abatement Council (MASAC), did not have such a balanced membership, which contributed to its discontinuation. The Committee agreed that the membership of the NOC should remain the same with six industry representatives and six community representatives, however they recognized the opportunity to review the NOC Bylaws in an effort to facilitate greater citizen input.

The NOC Bylaw Review Subcommittee was created in January with the following four members volunteering to participate:

Alex Mason, Endeavor Air  
Dwayne Lowman, Council Member – City of Bloomington  
Capt. Gordy Goss, Delta Chief Pilot  
Loren Olson, Staff – City of Minneapolis (NOC Alternate)

The Subcommittee met on February 14 and April 4. During these meetings, all Subcommittee members participated, as well as Lynn Moore, City of Bloomington Staff and NOC Alternate member to Council Member Lowman. During the first meeting, the Subcommittee established the following objective for the group:

*Evaluate the Committee Meeting structure of the NOC Bylaws, identify opportunities for improved citizen input during meetings, and develop recommended changes for consideration by the full NOC.*

The Subcommittee took the remainder of the February 14 meeting and the duration of the April 4 meeting to discuss NOC Bylaws ARTICLE VIII, Committee Meetings. The following summarizes

the recommendations brought forward from the Subcommittee. Draft redline edits to the NOC Bylaws consistent with these recommendations are provided in Attachment 1.

**Subsection 4 - time and location of NOC meetings.** The following ideas were discussed and received support from the Subcommittee:

- NOC members are strongly suggested to attend Listening Sessions when able.
- Hold one evening meeting by the NOC each year (suggested November for approval of the Work Plan).
- Changing the time and location of the NOC meetings should be further evaluated in the future

The Subcommittee members recommend that ARTICLE VIII, Sections 1 and 4 of the Bylaws be amended, as shown in Attachment 1, to allow the ability to have NOC meetings during the evening.

**Subsection 5 – Items added to future agendas.** The following ideas were discussed and received support from the Subcommittee:

- Due to the rigid and lengthy process for adding agenda items to NOC meeting agendas, the Subcommittee would like to allow some flexibility for the Co-Chairs to add items to upcoming meetings at their discretion.

The Subcommittee members recommend that ARTICLE VIII, Section 5 of the Bylaws be amended, as shown in Attachment 1, to allow for items to be added to future NOC agendas by mutual consent of the NOC Co-Chairpersons.

**Subsection 6 – Public comment period at NOC meetings.** The following ideas were discussed and received support from the Subcommittee:

- Remove the requirement in the Bylaws to have speakers sponsored by two (2) members of the Committee.
- Model the public comment period after “Citizens to be Heard” at city meetings using “I wish to speak” cards for individuals wishing to make a comment, then the acting Chairperson can make a final request for those wishing to speak who did not fill out a card.
- Move the comment period on the agenda to after the monthly operations update report, however keep this specificity out of the Bylaws to allow flexibility on the agenda structure.
- The time for the public comment period should be extended from the current fifteen (15) minutes to twenty (20) minutes with the ability to change it at the meeting by majority vote.
- The time limit for individual speakers should continue to be three (3) minutes, but there are some situations where the acting chairperson may need to allow additional time and that ability should be reflected in the Bylaws.
- The NOC members should have the ability to ask clarifying questions of the speaker, if necessary. (This would not be specified in a change to the Bylaws).

- MAC Staff should provide the Co-Chairs with a prepared script to open up the public comment period of the meeting. The script would cover the public comment guidelines, such as speaking into the microphone, stating name and address, the speaker's comment time, and what the Committee does with comments. (This would not be specified in a change to the Bylaws).
- A section on the macnoise.com website should be created to provide public comment period guidelines at NOC meetings so individuals wishing to speak know what to expect. This would include the steps individuals wishing to speak should go through to provide comment, what they can expect at the meeting, and what the Committee does with comments. (This would not be specified in a change to the Bylaws).

The Subcommittee members recommend that ARTICLE VIII, Section 6 of the Bylaws be amended, as shown in Attachment 1, to reflect the first five bullet points above for public comment during NOC meetings. The last three bullet points would not need a change to the Bylaws.

At the May 16<sup>th</sup> NOC meeting, MAC Staff and the NOC Bylaw Review Subcommittee will present these recommendations for consideration by the full NOC membership. To allow sufficient time for members to deliberate with at-large groups and contemplate recommendations, action by the Committee on Bylaw changes will be requested at the July 18, 2018 NOC meeting.



Attachment 1



**BYLAWS**  
**MSP Noise Oversight Committee (NOC)**

---

ARTICLE I  
Committee Mission

Provide a balanced forum for the discussion and evaluation of noise impacts around Minneapolis-St. Paul International Airport through the following functions:

- Identify, study, and analyze airport noise issues and solutions
- Provide policy recommendations or options to the MAC Planning, Development and Environment Committee and full Commission regarding airport noise issues
- Monitor compliance with established noise policy at MSP
- Ensure the collection of information and dissemination to the public.

The above functions will be conducted in a manner that considers public and airport user concerns, taking into consideration public input/information from the following channels of communication:

- MAC Noise Program Office
- MAC Noise Program Office Website
- MSP Noise News newsletter
- MAC noise complaint and information hotline
- Governmental body official policy development processes
- MAC public hearings
- MAC informational meetings
- Individual NOC members
- MAC Planning, Development and Environment Committee
- Metropolitan Airports Commission meetings.

ARTICLE II  
Membership

1. The Committee membership shall consist of twelve officially designated representatives or, in the absence of designated representatives, the alternative representatives, with authority to act upon all matters within the purview of the Bylaws.

2. The airport users and communities shall have an equal number of members and votes on the Committee.
3. The MSP Airport and Airline Affairs Committee (AAAC) shall make airline and pilot appointments, except for the Minnesota Business Aviation Association (MBAA).
4. (a) Community representation will be defined as those communities within or touched by the most recently developed and submitted Part 150 DNL 65 contour. The following communities shall be entitled to one seat each on the Committee: Bloomington, Eagan, Mendota Heights, Minneapolis, and Richfield and shall each appoint one primary representative and one alternate representative. Such communities shall be referred to as the “Designated Communities.”  
  
(b) The following communities shall be entitled to share as a group one seat on the Committee: Burnsville, Inver Grove Heights, St. Louis Park, St. Paul, Sunfish Lake, Apple Valley, and Edina. Such communities shall be referred to as the “At-Large Communities.” The At-Large Communities as a group shall be the appointing authority for the At-Large Communities seat. Each At-Large Community shall have one vote in the selection of the At-Large Communities’ primary and alternate representative.  
  
(c) Taken together, Designated Communities or their primary and/or alternate representatives and At-Large Communities or their primary and/or alternate representative shall be referred to as “communities” or “community representatives.”
5. The respective appointing authority shall file with the MAC the designated representative and alternate, setting forth their names and mailing address. Thereupon, representation on the Committee will be confirmed by issuance of a certificate of membership to each such representative and/or alternate representative.
6. Primary representatives and alternate representatives of Designated Communities, Users, and At-Large Communities shall be appointed to serve for two (2) years. Alternate representatives will only be allowed to represent their respective organization in the absence of a primary representative.
7. The composition of the Committee is as follows:

USER REPRESENTATION

- 1 – Scheduled airline representative
- 1 – Cargo carrier representative
- 1 – Charter/scheduled airline representative

- 1 – Chief Pilot representative
- 1 – Minnesota Business Aviation Association (MBAA) representative
- 1 – At-Large Airport User representative, as selected by the MSP AAAC

CITY REPRESENTATION

- 1 – City of Minneapolis representative
  - 1 – City of Richfield representative
  - 1 – City of Mendota Heights representative
  - 1 – City of Bloomington representative
  - 1 – City of Eagan representative
  - 1 – At-Large Communities representative, as selected by the At-Large Communities
8. The total Committee membership will never exceed twelve (12) members. Modification of total membership numbers must be by a unanimous vote of the Committee.
9. Input may be sought from organizations or agencies that deal directly with aircraft noise abatement programs to include: Airlines for America (A4A), Federal Aviation Administration (FAA), Minnesota Air National Guard, U.S. Air Force Reserve, MAC, Metropolitan Council and any other organization or agency with majority approval by the Committee.

ARTICLE III  
Powers and Duties of Membership

Subject to the voting provisions herein set forth, the membership shall have the following powers and duties:

- 1. Both airport user and community appointed members must be vested to represent their constituency and vote accordingly.

ARTICLE IV  
Voting Rights of Membership

- 1. At all meetings of the Committee, attendance by four (4) airport user representatives and four (4) community representatives shall constitute a quorum for voting/action purposes. For the purpose of conducting meetings, at least half, six (6), of the Committee members must be in attendance. Attendance includes meeting participation via conference call.
- 2. There shall be equal representation of airport user and community membership on the Committee and, to that end, for purposes of voting on all matters requiring a

vote of the Committee, each representative, both user and community, shall have one (1) vote, which in the absence of a representative may be his or her duly designated alternate representative.

3. These Bylaws may be amended or altered by the vote of a super majority of the membership present at any meeting, provided that notice of such proposed amendments shall have been given fourteen (14) days prior to a general membership meeting.

#### ARTICLE V Co-Chairpersons

The airport user and community segments of the Committee shall each select a Co-Chairperson who will serve at the pleasure of the appointing group. Each Co-Chairperson will serve for a two-(2) year term or until his/her representation on the Committee terminates, or until replaced by the appointing group, whichever occurs first.

The powers and duties of the Co-Chairpersons are as follows:

1. To review agendas.
2. To preside over meetings - the presiding Chairperson will alternate every other meeting.
3. By the mutual consent of the Co-Chairpersons, special meetings may be called, or upon request of a majority of the Committee, four (4) users and four (4) community representatives.
4. To sign as Co-Chairpersons of this Committee, all instruments in writing that may require such signature, unless the membership shall otherwise direct, and to perform such other duties and tasks as these Bylaws or as the membership shall from time to time prescribe.
5. Each segment of the Committee, by a majority vote, shall elect their respective Co-Chairperson.

#### ARTICLE VI Technical Advisor

The Manager of the MAC Noise Program Office will act as the Technical Advisor to the Committee. The Technical Advisor shall perform the following functions:

1. To prepare the agenda for meetings of the Committee which shall include any items for consideration proposed to him/her by any airport user or community representative with the consent of at least one Co-Chairperson.
2. To keep a full and complete record of the proceedings of the Committee and of the meetings of the members.
3. To maintain an up-to-date roster of Committee membership and of the representatives of each member corporation, association, governmental body and unit including the date of appointment and time of service of each representative. He/she shall inform each member as to the termination of the term of service of each representative, no less than sixty (60) days prior to such termination.
4. To make service and publication of all notices that may be necessary or proper. In the case of absence of the Technical Advisor or the Committee's Designee to make service or publication of any notice then such notice may be signed, served and published by the Co-Chairpersons or, in the absence of one of the Co-Chairs, by one of the Co-Chairpersons, or by any person thereunto authorized by any of them or by the Committee.

ARTICLE VII  
Technical Studies

1. The Committee at its own determination, by a majority vote, or at the request of the Technical Advisor, may retain the services of independent technical experts and consultants as deemed necessary in the performance of the Committee's functions.
2. All services that are retained for the purpose of supporting Committee initiatives will be conducted within the budgetary limits of the MAC Noise Program Office.
3. In aid of the Committee's mission, the Committee may ask agencies, corporations, associations, and governmental bodies to make available to the Committee technical advice, and the services of their technical personnel reasonably required for the purpose of studies instituted by the Committee.
4. Studies and reports of technical personnel retained by the Committee for such purpose shall be available to the Committee in aid of its performance of its functions but shall not constitute studies or reports of the Committee unless duly adopted by it.

ARTICLE VIII  
Committee Meetings

1. Meetings will be scheduled every other month (odd numbered months) – day and time to be determined by the Committee. Meetings will be held if workload/business necessitates as mutually determined by the Co-Chairpersons. If any regular meeting day falls on a Saturday, Sunday or holiday, then the meeting shall occur on the next business day thereafter. Special meetings of the Committee shall be established through the mutual consent of the Co-Chairpersons or by a majority vote of the Committee.
2. Prior to every meeting, a Committee agenda review session will be conducted for Committee members and/or Alternates only. Committee meetings will be open to the public. All decisions, staff direction, and votes will be made during the public Committee meeting.
3. The Technical Advisor or the Committee’s designee shall distribute notice of general or special meetings of the Committee at least two (2) weeks prior to the meeting to each representative at his/her email or mailing address currently on file with the MAC. Such notice shall set forth the agenda of the meetings and no matters requiring Committee action may be considered which are not on the agenda unless the Committee, by a super majority vote of representatives in attendance, elects to consider such matters. Each Committee agenda will include a review of any comment trends, topics or issues raised via the Committee’s recognized channels of communication.
4. All meetings shall be held at the general offices of the MAC or at such other place or places, from time to time as the Committee, by majority vote of representation in attendance at a meeting, determines. The place of meeting or alternative place of meeting shall be set forth in notices of meetings.
5. Committee members can propose an item that is not included on the work plan for Committee consideration to either co-chair for approval and inclusion on the agenda. Through mutual consent of the Co-Chairpersons, agenda items proposed by Committee representatives will either be:
  - (a) Approved and added to the agenda of a future NOC meeting; or
  - (b) Proposed to the Committee at a future meeting at which time the representative proposing the item, and any individuals designated by the member to speak to the topic, will be given a specific amount of time, agreed to by both Co-Chairs, to present the item to the Committee. The Committee will consider the agenda item and make a determination whether the item should be added as a future agenda item, for more in-depth discussion and consideration, or dismissed from further discussion. This determination shall be made by a vote of at least four members of either the user representative group or city representative group.
6. A public comment period of no more than twenty (20) minutes will be added to

**Deleted:** during business hours

**Deleted:** as

**Deleted:** Approved

**Formatted:** Not Expanded by / Condensed by

**Formatted:** List Paragraph, Left, Right: 0", No bullets or numbering, Tab stops: Not at 0.56"

**Formatted:** Left, Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.86" + Indent at: 1.11"

**Formatted:** Not Expanded by / Condensed by

**Deleted:**

**Formatted:** Left, Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.86" + Indent at: 1.11"

**Deleted:** fifteen

**Deleted:** 15

each agenda unless amended by majority vote during the meeting. Individuals choosing to speak during the public comment period should either fill out a speaker card prior to the meeting or contact their NOC representative. Each speaker will be limited to three (3) minutes, unless the acting chairperson for the meeting provides additional time. The Committee may add items raised during the public comment period to future meeting agendas by majority vote.

**Deleted:** the end of

**Deleted:** Speakers must be sponsored by two (2) members of the Committee.

**Deleted:** .

ARTICLE IX  
Sub-Committees

Sub-Committees will be established on an as needed basis as determined by the organization as a whole, and will be comprised of people with the expertise or a vested interest in the area of discussion, with a date certain completion time. Sub-Committees shall be provided a defined task to accomplish and a timeframe within which to complete the task. The composition of Sub-Committees will always be an equal balance of airport user and community representatives.

ARTICLE X  
Procedures and Rules of Order

Robert's Rules of Order will be the governing doctrine for conduct of business and membership participation/behavior. The Committee may also adopt other rules necessary for the governance of the Committee's conduct of business. A rule can only be amended or suspended by a vote of two-thirds of the full Committee.

ARTICLE XI  
Reporting Relationship and Responsibility in MAC's Process

1. Annual work plans will be developed in consultation with the MAC Planning, Development and Environment Committee and reviewed and approved annually by the MAC full Commission.
2. Actions by the Committee will be forwarded to the MAC Planning, Development and Environment Committee for review, and forwarded to the full Commission.
3. The Co-Chairs will provide a report to the MAC Planning, Development and Environment Committee on an annual basis.
4. Each member will be responsible for reporting to his or her respective appointing authority.



# MEMORANDUM

**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Dana Nelson, Manager—Noise, Environment & Planning

**SUBJECT:** **EVALUATE MENDOTA HEIGHTS AIRPORT RELATIONS COMMISSION  
RUNWAY 12L DEPARTURE PROPOSAL**

**DATE:** May 2, 2018

The 2018 NOC Work Plan includes an evaluation of a Runway 12L departure proposal from the Mendota Heights Airport Relations Commission (ARC). The intent of this proposal is for noise abatement at close-in residential areas in the Eagan-Mendota Heights Corridor (“Corridor) by delaying the initial heading assignment until aircraft departing Runway 12L pass the center of the Corridor. The proposal is provided in Attachment 2.

MAC staff reviewed the proposal with local FAA representatives in early 2018. Several items were discussed regarding the implementation of such procedure, including airport efficiency and separation standards for departures off Runways 12L, 12R and 17, radio handoff considerations between MSP tower and approach control (TRACON), and required environmental review.

At the May 16, 2018 NOC meeting, MAC Staff and FAA will provide a presentation on this topic.

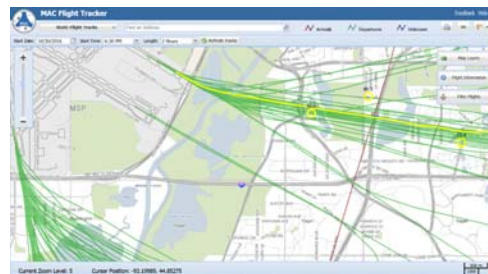
# Mendota Heights Proposal

Mendota Heights Airport Relations Commission

1

## 12L Departure Noise Abatement Procedure

- Goal: 12L departure operations are routed such that they avoid close-in residential areas most of the time
- Rationale: Eagan-Mendota Heights corridor is considered an industrial use area, but departure operations concentrate over the close-in residential areas rather than the industrial areas



2

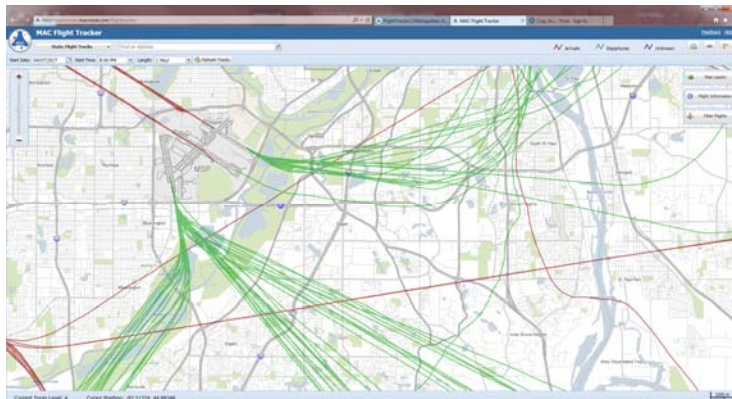
## Historical Information

- Prior to the construction of runway 17/35, Mendota Heights experienced an average of 23% of departure operations flying over close-in residential areas
- The city was advised that the construction of runway 17/35 would result in less overflight operations
- The ARC statistically tracks the percent and count of operations
- Recent data identifies a trend of increased departure operations off of 12L
- MAC and FAA confirmed that utilization of 12R is decreasing
- Besides turbo-props, aircraft departures now travel around the same speeds, so ATC does not need to turn aircraft out earlier to maintain nose-to-tail separation

3

## Why This Matters

- Current operations are under-utilizing 12R for departures
- Visual shows 12L and 17 utilization: the new parallels



4

## Concern

- Mendota Heights close-in residential areas within the corridor, which are located only 1.5 miles from 12L and extend to approx. 2.5 miles, are receiving more than their fair share of departure noise

NOTE: Eagan has no residential areas within the corridor

- Current flight paths disproportionately fly over close-in residential areas rather than industrial/commercial/roadway developed space
- Less simultaneous flights with 12R should result in higher utilization of the industrial/commercial space rather than close-in residential areas

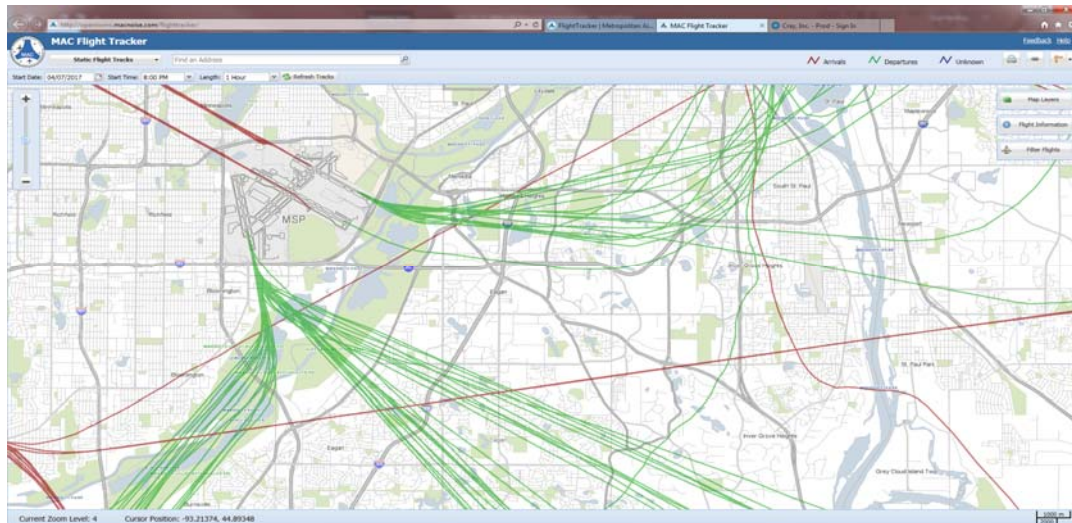
5

## Mendota Heights-Eagan Corridor



6

## Less Simultaneous Departures



## So What Can Be Done

- Gather support at NOC for the 12L Noise Abatement Procedure
- The procedure is more aligned with the intent of the Egan-Mendota Heights Corridor and Runway Use System (RUS), as it concentrates departures to the sizable stretch of roadway and industrial developed land adjacent to the residential areas within the corridor.
- This benefits 6 close-in neighborhoods: LeMay Lake, Augusta Shores, LeMay Shores, Lexington Ave, Wagon Wheel and portions of Rogers Lake
- By adopting the procedure, the first plane fly overs occur east of Dodd Road in residential areas
- The suggested 12L Noise Abatement Procedure should not impact other cities



# 12L Departure Noise Abatement Procedure

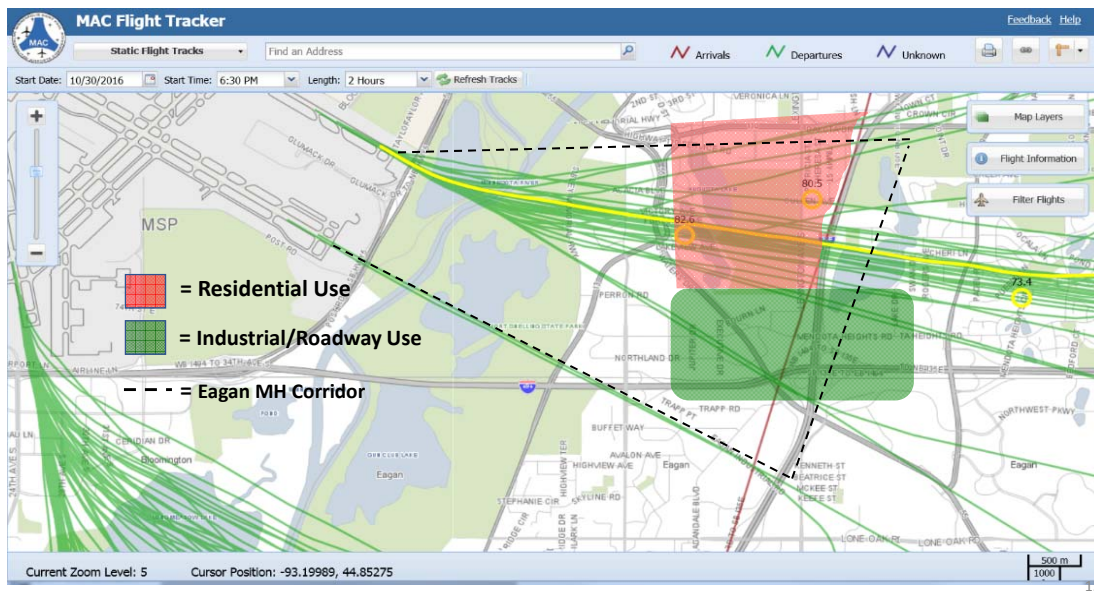
- Desired result to propose to NOC:

***We are asking for a delay of 10-15 additional seconds or .8 mi (.7nmi) from average heading application point, resulting in aircraft flying over no residential areas until after Dodd Road.***

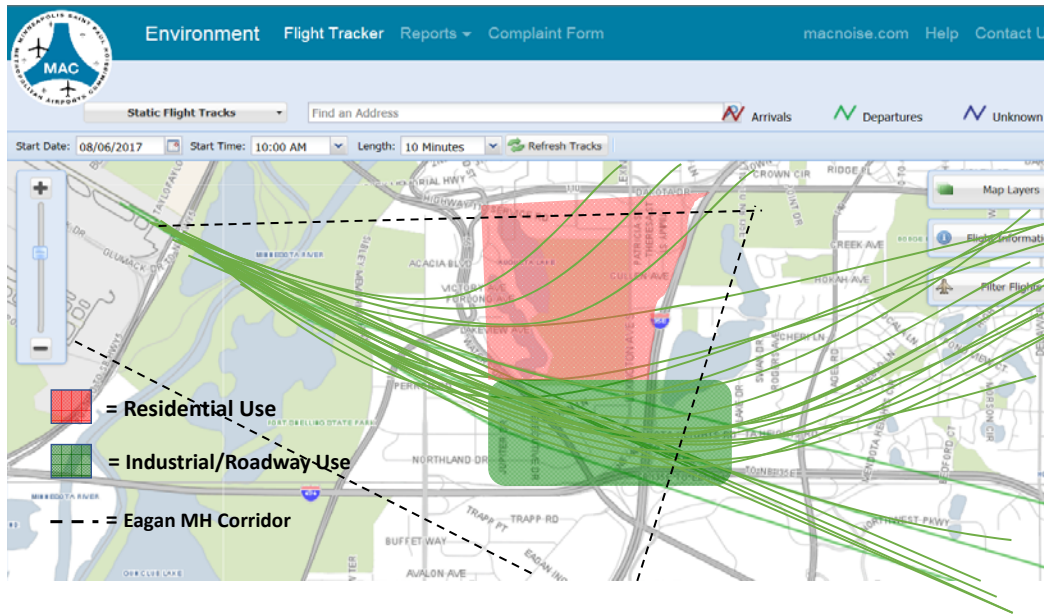
- The ARC recognizes that noise abatement measures are adhered to on a purely voluntary basis. They are, by no means, enforceable. A pilot's responsibility is to follow the directions of ATC.

11

## Before Implementation of the 12L Departure Noise Abatement Procedure – Departures Concentrated Over Residential Areas Within the Corridor



After Implementation of the 12L Departure Noise Abatement Procedure – Departures Concentrated Over Industrial/Commercial Areas Within the Corridor



## Question and Comment Responses

**Question/Comment:** The Crossing-in-the-Corridor procedure already accomplishes this.

**Response:** No. That procedure is used sparingly, primarily during overnight hours, only when one controller is working both 12L and 12R, and does not alleviate noise during high demand periods. Departures off both parallels are assigned on converging headings. With the proposed 12L Departure Procedure, 12R departures are not given a 105 degree heading thereby preventing aircraft convergence.

**Question/Comment:** What is the decibel reduction impact for the procedure?

**Response:** On a per event basis RMT 23 would experience more 75-78 dB events instead of 85-90 dB, RMT 15 would experience more 68-72 dB events instead of 75-79 dB events.

**Question/Comment:** The procedure will cause a lack of capacity during high demand periods.

**Response:** The overwhelming majority of departing aircraft follow the 3-mile separation standard (nose to tail) for successive departures. It takes on average 1 minute to achieve this distance. Aircraft do not achieve 3 mile separation sooner by turning earlier, so even with this pattern departures should still be able to depart at a high rate.

**Question/Comment:** Won't this result in more noise for residents east of Dodd road?

**Response:** the proposed procedure is to alleviate the loudest of takeoff noise for residents within the boundaries of the Eagan-Mendota Heights corridor. The 3 headings are still available for dispersion after the delay.



# MEMORANDUM

**TO:** MSP Noise Oversight Committee (NOC)

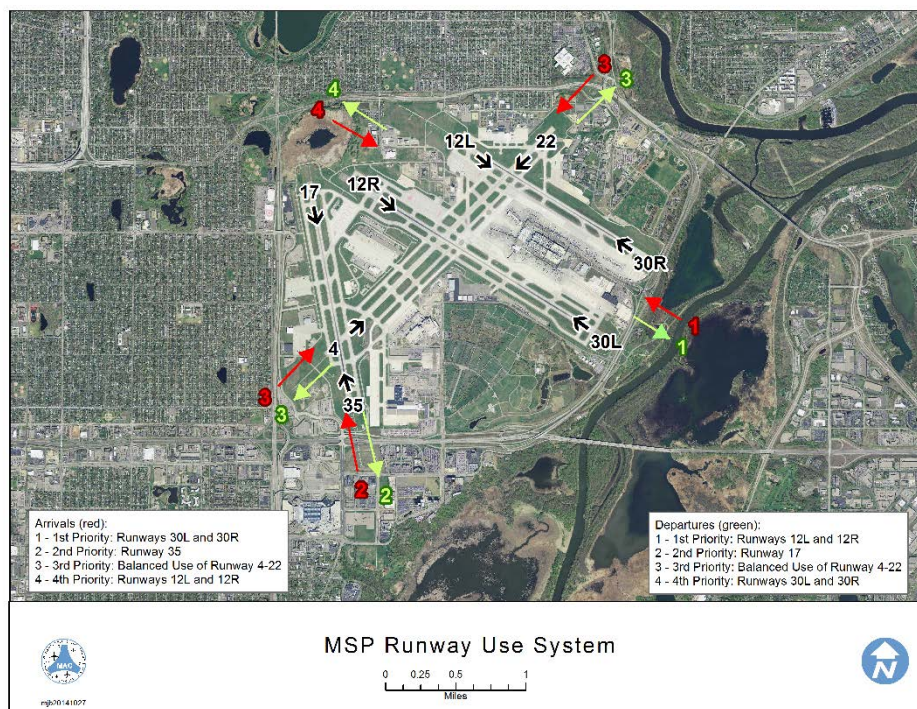
**FROM:** Dana Nelson, Manager—Noise, Environment & Planning

**SUBJECT:** REVIEW AND DISCUSS RUNWAY USE SYSTEM PRIORITIES

**DATE:** May 2, 2018

The 2018 NOC Work Plan includes a task to review and discuss the Runway Use System (RUS) priorities. The RUS establishes runway selection preferences to promote flight activity over less-populated residential areas. The RUS is used to varying degrees depending on weather and traffic levels. Weather is a driving factor in runway selection. The FAA Air Traffic Control (ATC) must select runways that align aircraft arrivals and departures into the wind. Additionally, it is necessary for ATC to select runways and airport configurations that allow for the efficient and expeditious movement of aircraft, especially during mid-to-high demand periods.

The RUS priorities are pictured below. Departure preferences are separate and distinct from arrival preferences. Since departures are typically noisier than arrivals, ATC will prioritize the departure runway priorities over the arrival priorities.



MSP is one of only a few large-hub airports in the United States that has simultaneous arrival and departure operations on two parallel runways. Most large-hub airports have runways dedicated to either arrival or departure operations. This makes it critical for ATC to carefully direct MSP aircraft departures between arrival streams on the parallel runways. Since Runway 17/35 is only used in one direction (to the south for departures on 17 or from the south for arrivals on 35), ATC

is able to direct aircraft to depart from the runway without sequencing arrivals to the same runway. This dynamic leads to a higher percentage of Runway 17 departures as compared to Runway 12L and 12R departures, despite the RUS.

Most of the time, FAA will not be able to use first priority for departures and the first priority for arrivals simultaneously. For example, when wind and traffic conditions permit, ATC will assign departures to Runways 12L and 12R, per RUS guidelines. During mid-to-high demand periods, arrivals are not able to use Runways 30L and 30R, as it would result in opposite flow operations (also called “head-to-head”). It is more likely that ATC will place arrivals on Runways 12L and 12R, establishing a straight south flow to achieve necessary runway capacity and separation standards.

To capture the complexity of the RUS and report on the use of high-priority runways, the MAC currently provides various metrics and tools to report the RUS under the Abatement tab of the Interactive Reports website ([www.macenvironment.org/reports/](http://www.macenvironment.org/reports/)).

- The arrival and departure counts and percentages for each runway are provided on the Runway Use System page for all hours, nighttime, morning and evening hours, as shown in the screenshot below for March 2018. The Use of RUS High Priority Runways table groups the first three runway priorities (30L, 30R, and 35 for arrivals and 12L, 12R, and 17 for departures).

Data [Maps](#) [Archive](#)
Date: 03/2018

[Home](#)
[Operations](#)
[Complaints](#)
[Sound Monitoring](#)
[Abatement](#)

### Runway Use System What is the runway use system? [Learn More](#)

ARRIVALS									
RUNWAY	TOTAL	%	NIGHT	%	MORNING	%	EVENING		
12L	4144	23.4%	208	1.2%	127	0.7%	168	1.1%	
12R	5219	29.5%	651	3.7%	94	0.5%	291	1.6%	
30L	3801	21.5%	609	3.4%	112	0.6%	201	1.1%	
30R	3225	18.2%	168	0.9%	148	0.8%	152	0.9%	
35	1320	7.5%	92	0.5%	32	0.2%	0	0.0%	
<b>ARRIVALS</b>	<b>17709</b>	<b>100%</b>	<b>1728</b>	<b>9.8%</b>	<b>513</b>	<b>2.9%</b>	<b>832</b>	<b>4.7%</b>	
<b>TOTAL</b>	<b>35397</b>		<b>2381</b>		<b>1995</b>		<b>2006</b>		

DEPARTURES									
RUNWAY	TOTAL	%	NIGHT	%	MORNING	%	EVENING		
12L	2682	15.2%	114	0.6%	160	0.9%	297	1.7%	
12R	1499	8.5%	271	1.5%	287	1.6%	175	1.0%	
17	6169	34.9%	39	0.2%	397	2.2%	272	1.5%	
22	2	0.0%	0	0.0%	1	0.0%	0	0.0%	
30L	4160	23.5%	161	0.9%	386	2.2%	207	1.2%	
30R	3176	18.0%	68	0.4%	251	1.4%	223	1.3%	
<b>DEPARTURES</b>	<b>17688</b>	<b>100%</b>	<b>653</b>	<b>3.7%</b>	<b>1482</b>	<b>8.4%</b>	<b>1174</b>	<b>6.6%</b>	
<b>TOTAL</b>	<b>35397</b>		<b>2381</b>		<b>1995</b>		<b>2006</b>		

[Download the CSV](#)

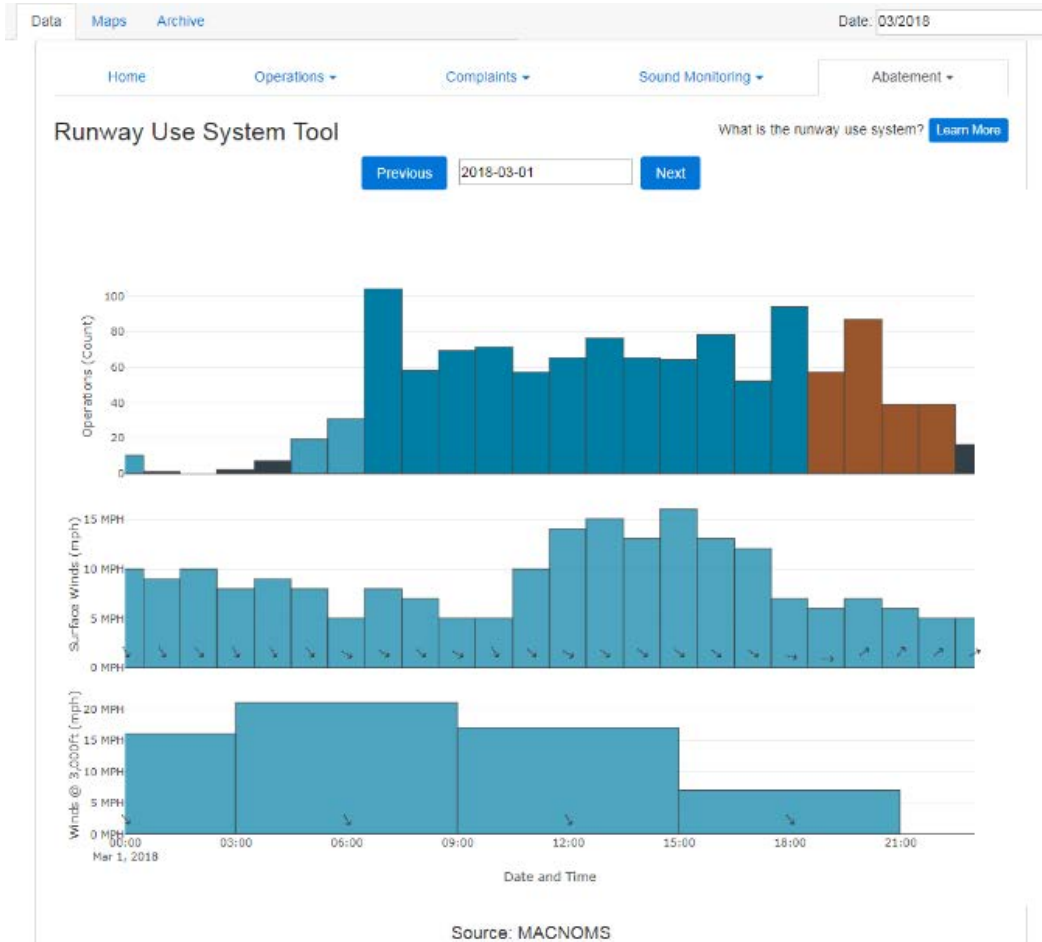
USE OF RUS HIGH-PRIORITY RUNWAYS			
DESCRIPTION	COUNT		
Arrivals 30L, 30R, 35	8346	23.6%	
Departures 12L, 12R, 17	10350	29.2%	
<b>Use of RUS High-Priority Runways</b>	<b>18696</b>	<b>52.8%</b>	

[Download the CSV](#)

NOTE: Night: 10:30 PM – 6:00 AM, Morning: 6:00 AM – 7:30 PM, Evening: 9:00 PM – 10:30 PM

Source: MACNOMS

- The Runway Use System Tool shows a daily dashboard of operations, surface winds, and winds aloft at 3,000 feet to provide a comparison of the airport configuration to the wind conditions – the primary factor leading to airport configuration and thus runway use decisions by the FAA.



- Last year MAC staff added a page to report airport flow data and provide historical monthly trends and year-to-date trends for all hours and during the nighttime. Reporting on airport flow provides a complete operational picture of the airport as compared to reporting on individual runways. For example, when departures are on the first priority runways – 12L and 12R – the arrivals are also likely to be on these runways. This tool allows the viewer to see the percent of time spent in this airport configuration, called straight south flow, and how it compares to historical monthly and year-to-date trends.

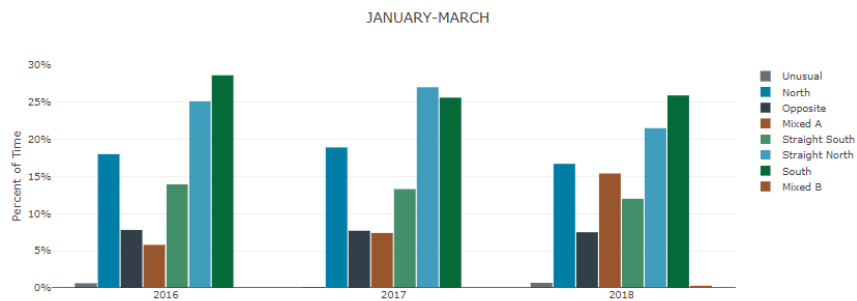
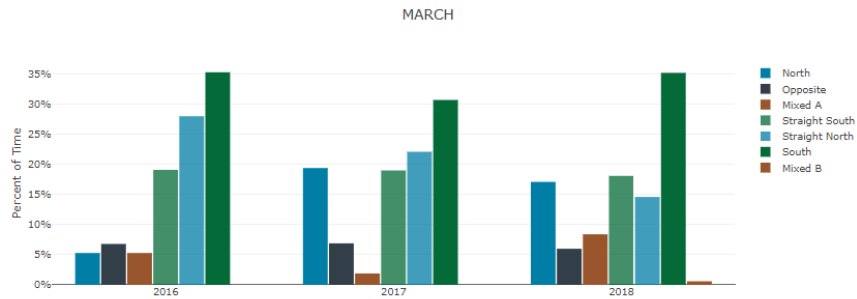
## Runway Use System by Flow

What is the runway use system? [Learn More](#)

All Night

MARCH				
YEAR	MIXED	NORTH	SOUTH	OPPOSITE
2016	6.3%	33.3%	54.4%	6.8%
2017	1.9%	41.5%	49.7%	6.9%
2018	9.0%	31.7%	53.3%	6%

JANUARY-MARCH				
YEAR	MIXED	NORTH	SOUTH	OPPOSITE
2016	5.8%	43.1%	42.0%	7.8%
2017	7.4%	45.9%	38.9%	7.7%
2018	15.7%	38.2%	37.9%	7.5%



The FAA uses the RUS as a guide for runway selection when wind and traffic demand allow. Variances in runway use will occur due to weather, safety, and aircraft interactions. It is not possible to dictate or quantify the exact times of the day when the RUS can be used, or when low-, mid-, and high-demand periods occur, as traffic conditions change daily.

At the May 16, 2018 NOC meeting, MAC staff will provide the Committee with a presentation on this topic.

# MEMORANDUM

**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Dana Nelson, Manager—Noise, Environment & Planning

**SUBJECT:** **UPDATE ON THE FAA’S SURVEY TO RE-EVALUATE NOISE MEASUREMENT METHODS**

**DATE:** May 2, 2018

In May 2015, the FAA announced it would begin evaluating its methods for measuring aircraft noise. For decades federal regulations prescribed a process under 14 CFR Part 150 for calculating aircraft noise impacts using the Day-Night Average Sound Level (DNL) metric. In the early 1970s the FAA established 65 dB DNL as the threshold at which federal funding could be available to homeowners for soundproofing or other mitigation.

The DNL metric is an average of all aircraft noise during a 24-hour period, with a 10-decibel (dB) penalty for each aircraft operation occurring between 10 p.m. and 7 a.m. This penalty accounts for the higher human sensitivity to noise during the nighttime hours.

The MAC assesses aircraft noise impacts, for each of its airports, using DNL noise contours. Communities across the nation, including communities represented on the NOC, have requested the FAA consider other federally-accepted metrics to express and represent the effects of aircraft noise exposure.

The FAA has said its evaluation will be a multi-year process and began with a survey of public perceptions of aircraft noise in communities situated around 20 airports nationwide. The FAA is not disclosing the airport communities in which it surveyed.

According to the FAA, the results of this survey are part of a larger effort to improve the understanding of aircraft noise impacts. The agency is also conducting studies on aircraft noise and sleep disturbance, cardiovascular health impacts, and children’s cognitive abilities. At this time, the FAA has indicated they expect to release the survey results in the second quarter of 2018, however that timeline may slip due to inter-agency review and coordination.

The FAA has stated that the results will be in the form of a report which will cover the purpose of the study, the scientific approach and the survey results. Once this report is released, the FAA said it will take public comment on the information. At this point, the FAA has stated the release of the results will not include any discussion on the implications to policy changes.

At the May 16, 2018 NOC meeting, MAC staff will provide the Committee with a presentation on this topic.

# MEMORANDUM

**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Brad Juffer, Assistant Manager—Noise, Environment & Planning

**SUBJECT:** **REVIEW OF THE SPRING LISTENING SESSION**

**DATE:** May 2, 2018

One of the elements of the framework for the MSP Noise Oversight Committee (NOC) includes convening a quarterly meeting with the public. The primary goal of the meeting 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 April 25, 2018 at 7:00 P.M., the Spring Listening Session was held at the MAC General Offices. Five residents attended the meeting; three from Minneapolis, one from Apple Valley and one from Eagan. Also in attendance were FAA air traffic officials, MAC Commissioner Ginsberg, and Minneapolis City Council Member, Jeremy Schroeder.

MAC staff opened the meeting and asked each of the audience members to introduce themselves and where they were from. Staff then provided a brief presentation on recent activity at the MSP Noise Oversight Committee and aircraft fleet trends. The presentation slides are available at [www.macnoise.com/sites/www.macenvironment.org/files/pdf/20180425\\_spring\\_1.pdf](http://www.macnoise.com/sites/www.macenvironment.org/files/pdf/20180425_spring_1.pdf)

After the presentation, staff opened the floor to discussion. The topics raised during the conversation included:

- Percentage of MD-80 and MD-90 aircraft operations
- MSP nighttime and early morning cargo operations
- Overall trends in operations, complaints and noise
- Area Navigation (RNAV) procedures at MSP
- MAC Residential Noise Mitigation Program

The next Listening Session will be held on July 17, 2018 at 7:00 P.M. at the Richfield City Hall. Further details will be made available on the [www.macnoise.com](http://www.macnoise.com) website.