

Minneapolis-St. Paul International Airport
2020 Improvements Draft EA/EAW



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MSP 2020 Improvements Draft EA/EAW File
C/O Roy Fuhrmann – Director of Environment
Metropolitan Airports Commission
6040 – 28th Avenue South
Minneapolis, MN 55450-2799

Dear Mr. Fuhrmann,

Thank you for the opportunity to comment on the Minneapolis-St. Paul International Airport 2020 Improvements Draft Environmental Assessment. We understand that the Long Term Comprehensive Plan adopted in 2010 and the associated Environmental Assessment have been prepared so that the Metropolitan Airports Commission (MAC) will be ready to make improvements and additions to Terminals 1 and 2 if and when demand increases beyond the capacity of the current facilities. The increased air traffic that would drive such expansion will mean more noise over a larger footprint in Minneapolis and the other communities affected by airport noise.

The Minneapolis Plan for Sustainable Growth, the City's comprehensive plan, recognizes the importance of the airport while providing guidance for City actions and advocacy related to the environmental impact of the airport's location and operations. The policies of the comprehensive plan provide the framework for the City's comments on this environmental assessment, which focus on the noise impact of the projected increase in operations at the airport through 2020. The City has the following overarching goals related to aviation noise:

- o Reduce the overall noise footprint
- o Enforce the regional standard of the 60 DNL line for noise mitigation
- o Decrease noise in unmitigated areas
- o Adoption of a noise metric other than DNL that better reflects the experience of people on the ground and that can be used for informed decision-making regarding the future of airport operations

Proposed Noise Mitigation

We appreciate that the MAC is responding to our request to address noise mitigation in the environmental assessment beyond the NEPA and FAA requirements, and that it is using the locally-adopted standard of 60 DNL consistent with past mitigation activities, the terms of the consent decree, and the local land use compatibility guidelines defined by the Metropolitan Council.

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016-1. Comment noted.

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<p align="right">016</p> <p>In Minneapolis, most of the increase in the 2020 forecast 60 DNL footprint for the MAC's preferred alternative takes place within already-mitigated areas. The exception is the area southeast of Lake Harriet, where a projected increase in arrivals to Runway 12R results in 1,229 homes being eligible for new or upgraded noise mitigation under the language proposed in the environmental assessment.</p> <p>Section 5.14.6 of the environmental assessment states that "noise mitigation will begin when the level of total annual operations at MSP reaches 484,879 or in the year 2020, whichever comes first." A threshold based on the number of operations does not make sense because the underlying assumptions and inputs that led to the forecast noise contours, as well as the accuracy of the model itself, will undoubtedly change. Most notably, fleet mix and flight tracks will continue to evolve. In the coming years, the updated contour maps reflecting 484,879 operations will not look the same as the map shown in the EA prescribing the blocks that would become eligible for noise mitigation. The fact that 35 homes within the 2010 60 DNL are not receiving mitigation based on the 2007 60 DNL illustrates this disconnect. Even as the total number of flights declined, the geographic distribution of the noise shifted in a manner that was not anticipated by earlier forecasts.</p> <p>The City of Minneapolis requests that the provision of any new noise mitigation be based on an assessment of measured conditions by geography rather than the total number of operations at the airport. The MAC should continue to update noise exposure maps annually and tie this measurement to a clearly-defined mitigation strategy that is approved by the surrounding communities. Basing mitigation on measured conditions will reflect changes in fleet mix and flight patterns including the possible implementation of RNAV or future performance-based navigation procedures.</p> <p>The Integrated Noise Model and DNL</p> <p>We understand that under National Environmental Policy Act (NEPA) and Federal Aviation Administration (FAA) rules the MAC's preferred alternative does not generate "significant impacts" related to noise, defined as "an increase of 1.5 dB DNL or greater for a noise sensitive land use at or above the 65 DNL noise exposure when compared to the No Action Alternative." However, we are concerned that Minneapolis residents are subjected to noise in a manner that is not captured by the Integrated Noise Model (INM) with DNL as the primary metric. DNL is intended to measure average noise exposure, and is derived from a model with inputs provided by the aviation industry rather than a measure of actual noise events. The projected impacts using INM modeling are similarly flawed. Because the human ear does not hear in averages, DNL does not effectively convey the noise impact experienced by residents. The recent experience of increased noise along Cedar Avenue illustrates this point.</p> <p>In 2004, an independent consultant collected baseline noise data using its own equipment in areas of south Minneapolis affected by aviation noise. A continuation of this work, including a follow-up data collection effort and the preparation of a report using the consultant's own methodology for measuring and documenting noise, would help all parties better evaluate aviation noise and would aid in developing a more effective metric for making policy decisions about the future of the airport. As the operator of the airport, the Metropolitan Airports Commission is best positioned to fund this work and to lead the effort to develop more effective noise metrics to be used in decision-making. The City of Minneapolis requests that the MAC</p>	<p>016-2. Comment noted. The 2020 forecasted 60 DNL contour for Alternative 2 - Airlines Relocate minimizes the affected population within the 60 DNL contour when compared to the No Action or Alternative 1- Airlines Remain Alternative. This preferred alternative is consistent with the cities stated goal in The Minneapolis Plan for Sustainable Growth to "reduce the overall noise footprint".</p> <p>016-3 and 4. Comment noted. The Final EA/EAW recognizes the stated concerns and as such is proposing a modification to the mitigation to address actual impacts. See General Response GR # 10.</p> <p>016-5. See General Response GR # 07.</p> <p>016-6. The MAC will continue to report, and consider the use of, alternative noise metrics. However, DNL is FAA's accepted noise metric, and the MAC has used FAA's INM-generated DNL noise contours as the mechanism for implementing a \$500 million noise mitigation program at MSP since the early 1990s. The noise mitigation program, relying on DNL and INM, has substantial community support. See General Response GR # 07.</p>
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<p style="text-align: right; color: red;">016</p> <p>fund this independent noise study, working in cooperation with affected communities. The City further requests that the MAC take on a leadership role with the communities and the FAA on identifying and implementing a new methodology and metric for measuring aviation noise.</p> <p>Noise Impact</p> <p>A primary goal of the City of Minneapolis is to reduce the overall noise footprint from the airport. This should be an achievable goal given the retirement of the noisiest aircraft, the flexibility in runway use provided by the addition of Runway 17/35, and the proximity of other airports that could relieve some of the demand at MSP. In fact, the overall noise footprint has been reduced in recent years as a result of quieter planes and a reduction in the number of operations. The noise analysis conducted for the environmental assessment, however, anticipates a reversal of this trend. It shows the 60 DNL noise footprint surrounding MSP growing by 1,736 acres between 2010 and 2020, an area larger than all of the Minneapolis lakes combined or nearly 350 city blocks. This larger noise footprint is the result of a projected increase in the number of annual flights from 435,583 in 2010 to 484,879 in 2020, illustrating the substantial impact that the number and frequency of flights has on noise as well as the limits of improvements in aircraft technology to minimize noise.</p> <p>The City of Minneapolis is burdened by airport noise pollution over densely populated residential neighborhoods. The Environmental Impact Statement for the construction of runway 17/35, based the environmental mitigation on a runway use percentage that has not been realized. The explanation has been that in spite of a Runway Use System (RUS) adopted by the Noise Oversight Committee and the MAC, the sheer number of departures currently at MSP makes it impossible to use certain runways to the extent planned. The City is concerned that the increase in capacity will exacerbate this problem and make it less likely that the preferred runways under the RUS can be used.</p> <p>Additionally, there may already be sufficient capacity at other airports throughout the state of Minnesota which would make this project unnecessary. The City has long advocated for a statewide aviation strategy that results in more commercial airline service at airports with unused capacity. We would welcome the MAC joining us in advocating for this planning at the state level.</p> <p>Performance-Based Navigation</p> <p>The FAA is working with the airlines and the MAC on developing new Performance-Based Navigation (PBN) procedures, including Area Navigation (RNAV) and Optimized Profile Descent (OPD). RNAV procedures allow aircraft to fly more closely to a defined flight path. Those flight paths were recently released and are currently under review.</p> <p>The draft EA states that "The noise analysis did not include the proposed PBN procedures currently being developed by the FAA. An evaluation of the impacts of these procedures as they relate to the proposed project may be incorporated in the Final EA. If information is not available, an evaluation will be completed once the information is available, if applicable." This is not a strong enough commitment to assessing the impact of PBN procedures, which holds some promise for improving the overall noise situation by keeping flights on a defined track but could also disproportionately impact some residents. The residents of Minneapolis and the other</p>	<p style="text-align: right; color: red;">6</p> <p>016-6. See comment response above.</p> <p>016-7. Comment noted.</p> <p>016-8. As explained in the introduction to this appendix, the growth in operations would occur naturally with or without the Proposed Action.</p> <p>The increase in aircraft capacity at the terminals will not make the use of the RUS more difficult. Aircraft operations are not projected to reach the 2004 historical peak operations level of 542,000 annual operations until after 2025. The use of Runway 17-35 is made slightly easier with the Preferred Alternative when wind conditions allow since more aircraft will be using Terminal 2, and will not have to cross another runway to use Runway 17-35. See General Response GR # 09.</p> <p>016-9. The MAC supports the MnDOT Statewide Aviation Plan review process. As part of the EA/EAW process, the MAC considered the positive impacts that full use of regional/statewide airports would have at MSP.</p> <p>The alternative to divert passengers to another airport was studied as part of the Draft EA/EAW. See Section 3.1.1 of the Draft EA/EAW. It was concluded that (1) neither the development of a competing hub nor a supplemental airport appears likely given current airline behavior and trends and, (2) even if the studied airports were able to capture 100 percent of their respective markets, the need for MSP terminal and landside</p>
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	<p>improvements would be delayed only temporarily. Therefore, the Other Airports Alternative was dismissed from further consideration.</p> <p>016-10. As explained in the introduction to this appendix, the PBN project is separate from the airport development project and the alternatives analyzed in the Draft EA/EAW. The proposed PBN procedures are the subject of a separate NEPA process being completed by FAA Air Traffic Organization.</p> <p>While the EA/EAW does not provide environmental review or approval of the proposed PBN procedures, the proposed PBN procedures have been incorporated into the forecasted future scenarios noise contours in the Final EA/EAW. Also, see General Response GR # 06.</p>
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<p style="text-align: right;">016</p> <p>communities affected by the airport need to be assured that the timeline for implementation of PBN procedures allows enough time to understand the impacts and tradeoffs before a final decision is made whether to adopt PBN at MSP. Any environmental review of the long term comprehensive plan that does not take the currently proposed PBN procedures cannot claim to accurately represent future conditions and therefore is inadequate.</p> <p>These impacts and tradeoffs extend well beyond the 60 DNL line. While changing flight patterns may or may not necessitate new noise mitigation under the mitigation language offered in the environmental assessment, shifting noise patterns do have an effect on individuals outside the 60 DNL. Any analysis of PBN procedures or other changes to flight patterns should be conducted for a geographic area large enough to fully understand whether and how noise will shift from one area to another, regardless of possible plans for noise mitigation in some areas.</p> <p>Environmental Impact Statement</p> <p>Future decisions regarding the terminal reconfigurations in the Long Term Comprehensive Plan may also affect or be affected by the implementation of PBN, requiring a more in-depth and comprehensive analysis than an Environmental Assessment can offer. In a letter to the MAC dated January 6, 2011 and a letter to the Noise Oversight Committee dated January 18, 2012, the City of Minneapolis requested that the cumulative effects of future airport actions including a full build-out of the Long-Term Comprehensive Plan and the implementation of PBN procedures such as RNAV and OPD be assessed comprehensively in the form of an Environmental Impact Statement. We reaffirm that request with this letter, agreeing with past Metropolitan Council comments on the previous 2015 Terminal Expansion EA that an EIS is warranted.</p> <p>Fine Particulate pollution</p> <p>Air quality and the negative impacts on public health of poor air quality are of particular concern for the City. High levels of particulate matter, specifically PM 2.5, are correlated with an increase in cardiovascular disease, heart attacks, strokes and asthma. Recent studies suggest increased fine particulates may negatively impact birth weight and IQ levels in children. Data from MPCA ambient monitoring stations near the airport show PM 2.5 levels have increased and are close to exceeding National Ambient Air Quality standards. In addition to its impact on public health, nonattainment for PM 2.5 would result in significant economic impacts for the region and should be avoided at all cost.</p> <p>The City requests that additional air pollution modeling be conducted for the current number and pattern of flights and the expected increase and temporal concentration in takeoffs, landings, idle time, expected turnover of fleets; and traffic from cars, buses and other associated facility operations that will increase as a result of this proposed expansion. Given the population density of areas in direct proximity to the airport, and the broader area likely to be impacted by expanded airport operations, these modeling data should be used to conduct a cumulative health risk impact study.</p> <p style="text-align: right;">4</p>	<p>016-10. See comment response above.</p> <p>016-11. As explained in the introduction to this appendix, the PBN project is separate from the airport development project and the alternatives analyzed in the Draft EA/EAW. The proposed PBN procedures are the subject of a separate NEPA process being completed by the FAA Air Traffic Organization.</p> <p>Projects proposed in the LTCP for post 2020 are not considered “reasonable foreseeable actions” because of the uncertainty and changeability in the aviation industry. Therefore, the post 2020 LTCP projects are not included in the Draft EA/EAW. Based on the evaluation in the Draft EA/EAW, an EIS is not required. See General Response GR # 01.</p> <p>016-12. The Air Quality Assessment was conducted in accordance with USEPA and FAA guidance. Also, note that the USEPA commended the MAC on the thorough air quality analysis in the Draft EA/EAW in its October 10, 2012, comment letter. Refer to Comment Letter #027 from the USEPA. Based on the Air Quality Assessment in the Draft EA/EAW, the Action Alternatives are not expected to adversely affect ambient air quality. The PM_{2.5} concentrations at the two air monitoring stations closest to MSP are well within the National Ambient Air Quality Standards (NAAQS) and the trend over the past three years is decreasing concentrations. In May 2006, the MPCA published a study of ambient monitoring conditions near MSP. The monitoring study included measurements of air</p>
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	<p>toxics and PM_{2.5} at two locations on MSP Airport and at Wenonah School and Richfield Intermediate School. Overall, median and average concentrations of pollutants monitored near MSP were similar to concentrations monitored at other locations in the Twin Cities Metropolitan Area. There is no difference between the PM_{2.5} emissions from Alternatives 1 and 2 versus the No Action Alternative during 2020 and 2025. The PM_{2.5} emissions during 2020 are 36 tons and during 2025 are 39 tons for all alternatives (i.e., No Action and Action Alternatives). Thus, the Action Alternatives are not expected to affect PM_{2.5} concentrations adversely.</p> <p>As explained in GR # 02, there are no existing federal regulatory guidelines specific to hazardous air pollution (HAP) emissions from aircraft engines. Although there are FAA and EPA/FAA guidance documents recommending best practices for quantifying speciated organic gas emissions from aircraft engines, the methods for measuring air emissions associated with aircraft engines is an evolving process that is still under development. See FAA, Guidance for Quantifying Speciated Organic Gas Emissions from Airport Sources, September 2, 2009, and FAA/EPA Recommended Best Practices for Quantifying Speciated Gas Phase Organic Gas Emissions from Aircraft Equipped with Turbofan, Turbojet and Turboprop Engines, May 27, 2009. The guidance specifically warns against preparing any type of HAPs assessment for aircraft emissions under NEPA—other than the type of emission inventory provided in the Draft</p>
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	<p>EA/EAW—because such assessments “require a complete understanding of both the reaction of OGS/HAPS in the atmosphere and downstream plume evolution,” and the science of such atmospheric reactions is “currently limited” and “still evolving.” <i>Id.</i> See also 40 C.F.R. § 1502.22 (providing that in an EIS, an agency may identify information that is unavailable).</p> <p>The FAA and MAC prepared a HAPs emission inventory that complies with FAA and FAA/EPA guidance and that is based on what is known currently about airport-related emissions. See Final EA/EAW, Appendix E <i>Air Quality Technical Report</i>, Section 6.</p> <p>See also General Responses GR # 02, GR # 04 and GR # 03.</p>
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Summary

In summary, the City of Minneapolis makes the following comments in response to the Minneapolis-St. Paul International Airport 2020 Improvements Draft Environmental Assessment:

- o The provision of any new noise mitigation should be based on an assessment of measured conditions by geography rather than the total number of operations at the airport, and annual measurements should be tied to a clearly-defined mitigation strategy that is approved by the surrounding communities. 13
- o The MAC should fund an independent noise study, which will aid in developing a more effective metric for making policy decisions about the future of the airport. 14
- o The MAC should take on a leadership role with the communities and the FAA on identifying and implementing a new methodology and metric for measuring the impact of aviation noise. 15
- o The FAA, MAC, and airlines should take steps to improve the use of preferred runways under the RUS and reduce time that runways are not able to be used for departures due to volume of flights. 16
- o The MAC should join us in advocating for a statewide aviation strategy that results in more commercial airline service at airports with unused capacity. 17
- o The environmental review of PBN procedures should be conducted in a timely manner, and include a geographic area large enough to fully understand whether and how noise will shift from one area to another. 18
- o An Environmental Impact Statement should be conducted taking into account the cumulative effects of future airport actions including a full build-out of the Long-Term Comprehensive Plan and the implementation of Performance-based Navigation (PBN) procedures. 19
- o The MAC should conduct additional air pollution modeling as well as a cumulative health risk impact study. 20

Thank you again for the opportunity to comment. We look forward to your response.

Sincerely,



R.T. Rybak, Mayor
City of Minneapolis

016-13. See Response to Comment #016-3.

016-14. See Response to Comment #016-6.

016-15. See Response to Comment# 016-6.

016-16. See Response to Comment #016-8.

016-17. See Response to Comment #016-9.

016-18. See Response to Comment #016-11.

016-19. See Response to Comment #016-12.

016-20. See Response to Comment #016-12.