

**FEDERAL AVIATION ADMINISTRATION
CATEGORICAL EXCLUSION DECLARATION**

**Procedure Changes at
Minneapolis-St. Paul International Airport, Minnesota**

Background:

On December 15, 2011, the FAA published in the Federal Register a notice of proposed policy and request for comments (76 FR 77939) on the FAA's proposed strategy for gradually reducing the current Very High Frequency Omnidirectional Range (VOR) network to a Minimum Operational Network (MON) as the National Airspace System (NAS) transitions to performance-based navigation (PBN) as part of the Next Generation Air Transportation System (NextGen). The FAA announced that, as part of a NAS Efficient Streamlined Services Initiative, the number of conventional navigational aids (NAVAIDs) would be reduced while more efficient Area Navigation (RNAV) routes and procedures are implemented throughout the NAS. See <https://www.federalregister.gov/d/2016-17579/p-3>. This Project is a part of the national strategy.

The MSP VOR is one of approximately 300 ground-based NAVAIDS that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated safety regulations will require the amendment or cancellation of current departure procedures (implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

Purpose and Need:

The purpose of the proposed action is to implement Congressional direction to replace the current procedures because they will be canceled due to the decommissioning of several VORs. The need for the proposed action is to provide air traffic procedures at airports in the Minneapolis area.

Description of Action:

The SNUPE RNAV SID would replace the COULT Conventional SID. THE SNUPE SID would also be used for departures at Anoka County/Blane (Janes Field (KANE), Flying Cloud Airport (FCM), and St. Paul Downtown Holman Field (KSTP).

The KBREW RNAV SID would replace the KBREW Conventional SID.

The BUNYN RNAV SID would be a new departure procedure.

The NRTHN RNAV SID would replace the WLSTON Conventional SID.

The TOTTZ RNAV SID would replace the current ROCHESTER ONE Conventional SID.

The DUHCK RNAV SID would be a new departure procedure.

THE HTDSH RNAV SID would be a new departure procedure when Minneapolis is on a RWY 30 configuration, where arrivals will be coming in from the southeast, but are able to have deconflicted RWY 17 departures to the south and southeast.

The SNOWZ RNAV SID would be a new departure procedure replacing the current SLAYR, HSTIN RNAV SIDS, and ORSKY and SCHEP Conventional SIDS and combining them into one SID.

The BITEZ RNAV SID would be a new departure procedure replacing the current SMERF and LEINY RNAV SIDS, combining them into one SID.

The ZMBRO RNAV SID would be a new departure procedure replacing the current ZMBRO Conventional SID.

The BAINY, BLUEM, KKILR, MUSCL, NITZR, and TORGY STARs into Minneapolis St. Paul Airport would be updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines.

Air Quality

The Proposed Action would not affect the number or type of aircraft operations in the study area, or the time aircraft spend below the mixing height. The Proposed Action does not increase flight time or route lengths. The majority of the changes that are part of the Proposed Action are at or above 3,000 feet AGL. As a result, it would not change the total emissions of air pollutants below the mixing height. The Action is presumed to conform because the changes are expected to enhance operational efficiency.

Noise

To determine whether aircraft noise impacts are significant under NEPA, the FAA considers whether the predicted increase in noise associated with the Proposed Action exceeds defined thresholds of significance. For aircraft noise, that threshold is an increase of DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the No Action Alternative for the same timeframe.

To identify the potential for impacts on the noise levels of noise sensitive areas, the FAA conducted a noise screen. The noise screening identifies areas that may be exposed to significant noise impacts (i.e., an increase of DNL 1.5 dB or more in an area that is exposed to noise at or above the DNL 65 dB noise exposure level). The noise screening tool also identifies certain areas with potential increases in areas exposed to lower levels of noise, specifically:

- For DNL 60 dB to less than 65 dB: ± 3 dB
- For DNL 45 dB to less than 60 dB: ± 5 dB

The FAA refers to any change in noise exposure levels meeting these criteria as “reportable.” The noise screening analysis indicates that the proposed action would not result in a reportable or significant noise impact. The methodology for the noise screening analysis is described in Appendix D.

Environmental Justice

The FAA conducted analysis to consider the presence of low-income and minority communities within the study area. The analysis indicates that less than 10% of the population on average is below the poverty level throughout the study area. Although minority and low-income populations are present in the study area, these communities are interspersed with middle- and high-income communities and non-minority populations within the study area. In addition, most of the study area covers areas that do not have distinct minority or low-income populations. Moreover, aircraft have historically overflowed the study area.

The environmental justice analysis considered the potential of the Proposed Action to cause disproportionately high and adverse effects on low-income or minority populations. In weighing whether the Proposed Action raises environmental justice concerns, the FAA’s analysis draws on the findings of the other impact analyses, particularly noise, land use, and air quality. When examined in the context of their effects on minority or low-income populations, the FAA also determined the Action did not have an adverse effect. Based on this analysis, the FAA has determined that the implementation of the Proposed Action would not adversely affect air quality or land use within the study area. Additionally, the results of the noise screening analysis, when comparing the No Action Alternative, indicate that any changes in noise exposure levels related to the Proposed Action would be below the thresholds for significant and reportable noise impacts. The Proposed Action has no new social or economic effects on the study area compared to the No Action Alternative. Based on the findings of the other impact categories included in this review, no significant environmental impacts were identified. Therefore, there are no socioeconomic impacts and no disproportionate or adverse impacts on minority or low-income populations as a result of the Proposed Action as compared to the No Action Alternative.

Community Involvement

FAA’s Community Involvement Policy Statement (April 17, 1995) affirms the FAA’s commitment to make complete, open, and effective public participation an essential part of its actions, programs, and decisions. Information about the FAA’s proposed action was made available on the project website at: https://www.faa.gov/air_traffic/community_engagement/msp

The FAA provided for public participation and community engagement for this proposed action including workgroup meetings with stakeholders, webinars with live question and answer sessions, and a comment period. Throughout the public comment period, the FAA received approximately 60 comments. All substantive comments were considered by the FAA before it decided to approve the actions herein. The comments submitted to the FAA, as well as the FAA’s responses, are included in Appendix E.

Extraordinary Circumstance

FAA Order 1050.1F, Section 5-6.5, *Categorical Exclusions for Procedural Actions*, includes the list of categorical exclusions involving establishment, modification, or application for airspace or air traffic procedures. The term “extraordinary circumstances” is formally defined under NEPA as factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that then requires further analysis in an environmental assessment or environmental impact statement. For FAA actions, extraordinary circumstances exist when the action involves any of the circumstances described in Order 1050.1F, Paragraph 5-2(b), and has the potential for a significant impact.

The FAA considered the presence of extraordinary circumstances and determined none were present, and therefore a higher level of environmental review was not warranted. For example, the FAA’s noise screen revealed that the proposed actions would not result in any reportable or significant noise impacts, which also supported the FAA’s determination that there would be no significant impacts to other resources such as Environmental Justice. Furthermore, while there was some public opposition to the proposed action, the FAA does not believe there was a substantial dispute over the degree, extent, or nature of the proposed actions environmental impacts. Mere opposition is not sufficient for a proposed action to be considered highly controversial on environmental grounds. Even if the impacts were considered by some to be highly controversial, there is no evidence that these changes might have a significant impact.

Declaration of Exclusion:

The FAA has reviewed the above referenced proposed action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, “Environmental Impacts: Policies and Procedures.” The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F. See attached Initial Environmental Review (IER) for a detailed analysis.

Basis for this Determination:

This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, “Procedures for Considering Environmental Impacts” and FAA Order 1050.1F.

The proposed action meets the following categorical exclusions contained in FAA Order 1050.1F:

5-6.5 i. Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); procedures conducted below 3,000 feet AGL that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved procedures conducted below 3,000 feet AGL that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima.

The FAA is aware of the November 12, 2024, decision in *Marin Audubon Society v. Federal Aviation Administration*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, the FAA has elected to follow those regulations at 40 CFR parts 1500–1508, in addition to the FAA’s policies and procedures implementing NEPA at FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* (July 16, 2015), to meet the agency’s obligations under NEPA, 42 U.S.C. §§ 4321 *et seq.*

Recommended by:

**KRISTI
REGOTTI**

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Date: 2025.01.06 11:54:43 -06'00'

Kristi Regotti, Environmental Protection Specialist, Operations Support Group, ATO Central Service Center, AJV-C25

Approved by:

**VONNIE L
GILES**

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Vonnie L. Giles, Manager (A), Operations Support Group, ATO Center Service Center, AJV-C2

Appendix 5. Air Traffic Initial Environmental Review (IER)

Section 1. Proposed Project Description

Describe the proposed project. Include general information identifying procedure(s) and/or airspace action(s) to be implemented and/or amended. Identify the associated airports and/or facilities.

- 1.1.** Describe the operational and/or environmental benefits that may result if the proposed action is implemented.

Performance-Based Navigation (PBN) provides for more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts when fully implemented. The MSP VOR is one of approximately 300 ground-based NAVAIDS that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated safety regulations will require the amendment or cancellation of current departure procedures (implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

- 1.1.1.** Is a reduction of fuel cost and/or energy consumption anticipated as a result of the proposed action?

☐ Yes ☒ No

The proposed procedures were developed to mimic current flight tracks.

- 1.1.1.a.** If so, can it be quantified, and how?

☐ Yes ☐ No

- 1.1.1.b.** If not quantifiable, describe the approximate anticipated benefits in lay terms

- 1.1.2.** Describe any additional operational and/or environmental benefits that may result from the proposed action.

N/A

- 1.2. Describe the existing procedure(s) (the no action alternative) in full detail. Provide the necessary chart(s) depicting the current procedure(s). Describe the typical fleet mix, including (if possible) the number and types of aircraft on the route (both annually and average day) and depict their altitude(s) along the route.

The existing procedures at MSP include conventional procedures that use ground-based traditional navigation methods. Current flight tracks are depicted in the procedure boards in Appendix A. The current fleet mix consists of commercial carriers, cargo aircraft, military aircraft, and general aviation.

- 1.3. Describe the proposed action, providing the necessary chart(s) depicting changes. Describe anticipated changes to the fleet mix, numbers of aircraft on the new routes and their altitude(s), if any.

The proposed action includes:

The SNUPE RNAV SID would replace the COULT Conventional SID. THE SNUPE SID would also be used for departures at Anoka County/Blane (Janes Field (KANE), Flying Cloud Airport (FCM), and St. Paul Downtown Holman Field (KSTP).

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The BAINY, BLUEM, KKILR, MUSCL, NITZR, and TORGY STARs into Minneapolis St. Paul Airport would be updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines.

The procedures were designed to mimic current flight tracks as depicted in the procedure boards found in Appendix A. Full descriptions of the proposed procedures can be found in Appendix B.

- 1.3.1. Has airspace modeling been conducted using Sector Design Analysis Tool (SDAT), Aviation Environmental Screening Tool (AEST), Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS), or another airspace/air traffic design tool?

☒ Yes. De ☐ No

TARGETS was used to design the procedures.

- 1.3.2. Will there be actions affecting changes in aircraft flights between the hours of 10 p.m. – 7 a.m. local?

☐ Yes ☒ No

Describe: No change in hours of operations is expected.

- 1.3.3. Are any noise abatement programs presently in effect for the affected airport(s), formal or informal?

☒ Yes ☐ No

Describe:

Eagan-Mendota Heights Departure Corridor

This departure corridor, established in 1969 with adjustments in the 1980s and 1990s, was developed in an effort to direct aircraft, as much as possible, over noise-compatible land use areas in Eagan and Mendota Heights, southeast of MSP. The corridor has proven to be an effective way to utilize existing compatible land uses surrounding the airport. In addition, the corridor provides flexible ways to operationally utilize airspace over such areas. When conditions allow, Air Traffic Control (ATC) will direct as many departing jet aircraft as possible to use Runways 12L and 12R so that they will overfly the corridor and stay within the corridor boundaries. ATC will assign specific headings depending on which runway an aircraft is departing from: headings for jet aircraft are inclusive of 090 degrees, 105 degrees and 120 degrees. A wind-corrected heading may also be assigned. On average, monthly corridor compliance is around 95%.

Straight-out Departures from MSP Runways 30L and 30R

Implemented in 1997, Air Traffic Controllers at MSP avoid sending aircraft departing from MSP Runways 30L and 30R straight-out over Minneapolis and areas northwest of MSP when operating conditions permit. This means that departures from MSP Runways 30L and 30R are assigned headings other than runway heading when feasible because residents living under the flight paths northwest of MSP (straight-out from MSP Runways 30L and 30R) experience all of the overflights from arrival operations on Runways 12L and 12R.

Runway 17 215-Degree Departure Heading

This procedure was designed for westbound departures off Runway 17 during southeast operational flows at MSP. It was implemented in April 2007 and dramatically reduces the instances of aircraft overflight impacts south of the Minnesota River Valley in the City of Burnsville.

- 1.3.4. Will airport preferential runway configuration use change as a result of the proposed action?

☐ Yes ☒ No

Explain:

The proposed project would not change the runway use but a runway use change is anticipated in an unrelated airport project. That is not part of this project; however, those changes have also been considered in this analysis to determine if there could be cumulative impacts.

- 1.3.5. Is the proposed action primarily designed for Visual Flight Rules (VFR), Instrument Flight Rules (IFR) operations, or both?

☐ VFR ☒ IFR ☐ Both

- 1.3.6. Will there be a change in takeoff power requirements?

☐ Yes ☒ No

If so, what types of aircraft are involved, i.e., general aviation propeller-driven versus large air carrier jets? N/A

- 1.3.7. Will all changes occur over 3,000 feet above ground level (AGL)?

☐ Yes ☒ No

Some changes would be below 3,000 feet.

- 1.3.8. What is the lowest altitude on newly proposed routes or on existing routes that will receive an increase in operations?

An increase in operations from this project is not anticipated.

- 1.3.9. Will there be actions involving civil jet aircraft arrival procedures between 3,000-7,000 feet AGL or departures between 3,000-10,000 feet AGL?

☒ Yes ☐ No

The proposed procedure changes are from the ground to approximately 10,000 feet.

Section 2. Purpose and Need

- 2.1. Describe the purpose and need for the proposed action. Present the problem being addressed and describe what the FAA is trying to achieve with the proposed action. The purpose and need for the proposed action must be clearly explained and stated in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities. If detailed background information is available, summarize here and provide a copy as an attachment to this review.

In 2006, the FAA started the transition to Performance Based Navigation (PBN) primarily using the Global Positioning System (GPS) and Area Navigation (RNAV). Although VORs are not used for PBN, a Minimum Operational Network (MON) would need to be retained in order to provide a backup during GPS interference. In 2011, the VOR MON concept was published in Federal Register Notice (FRN) 76 FR 77939: Proposed Provision of Navigation Services for the Next Generation Air Transportation System (NextGen) Transition to Performance Based Navigation (PBN).

The FAA considered input from the public, industry, other government agencies (including the military), and the RTCA Tactical Operations Committee (TOC) to develop the VOR MON. In 2016, the final policy was published in FRN 81 FR 48694: Provision of Navigation Services for the Next Generation Air Transportation System (NextGen) Transition to Performance Based Navigation (PBN).

Multiple VORs are expected to be decommissioned in the coming years. As this ground based navigation is retired, there is an impact on procedures at some airports. In anticipation of the VORs decommissioning, the FAA is replacing the old procedures with new procedures that will use satellite based procedures. This project is part of that national strategy.

2.1.1. Is the proposed action the result of a user or community request or regulatory mandate?

- ☐ Community Request ☒ Regulatory Mandate
☐ User Request.

If not, describe what necessitates this proposed action: N/A

Section 3. Alternatives

3.1. Are there alternatives to the proposed action?

- ☐ Yes ☒ No

If yes, describe any alternatives to the proposed action.

3.2. Please provide a summary description of eliminated alternatives and the reasons for their elimination.

Off-the-ground SIDs was an initial alternative. Based on feedback from the MAC, NOC, and communities, it was not carried forward as an alternative.

Section 4. Environmental Review and Evaluation

The determination of whether a proposed action may have a significant environmental effect is made by considering requirements applicable to the specific environmental impact categories discussed below (see FAA Order 1050.1, appendix B).

4.1. Describe the Affected Environment

4.1.1. Describe the existing land use, including noise sensitive areas (if any) in the vicinity of the proposed action.

The land use is a mixture of urban and suburban areas. As an urban and suburban area, there are several noise sensitive areas in the vicinity of the proposed project. The land surrounding the airport consists of compatible land uses, however.

4.1.2. Will the proposed action introduce air traffic over noise sensitive areas not currently affected?

☐ Yes ☒ No

Describe: The new procedures would be implemented in areas currently overflown. They were developed to mimic current procedures. See procedure boards in Appendix A.

4.2. Environmental Consequences

As stated in FAA Order 1050.1, paragraph 5-2. b., extraordinary circumstances exist when a proposed action meets both of the following criteria:

4.2.a. Involves any of the extraordinary circumstances; and

4.2.b. May have a significant impact (see 40 CFR 1508.4).

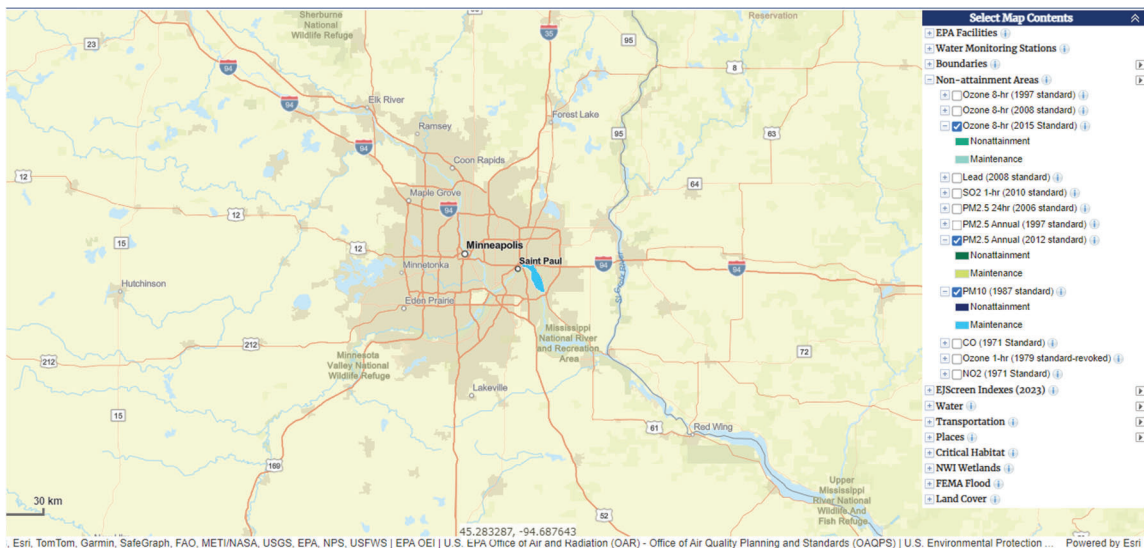
4.2.1. Air Quality

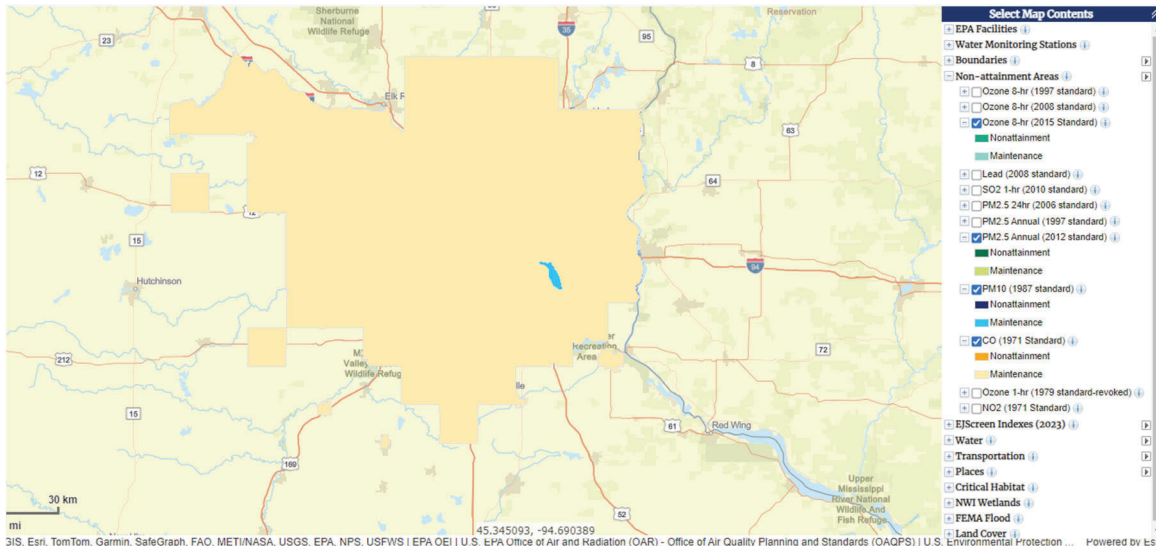
Has research been conducted to identify areas of concern or communication with air quality regulatory agencies to determine if the affected area is a non-attainment area (an area which exceeds the Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, carbon monoxide, lead, particulate matter, sulfur dioxide, or nitrogen dioxide) or maintenance area (an area which was in non-attainment but subsequently upgraded to an attainment area) concerning air quality?

☒ Yes ☐ No

Comment:

The project is not in a non-attainment area but is in a maintenance area.





Evaluation: Will implementation of proposed action result in an impact on air quality or a violation of local, state, tribal, or federal air quality standards under the Clean Air Act amendments of 1990? (See FAA Order 1050.1, paragraph 5-2. b. (8), the Air Quality Handbook, and 1050.1 Desk Reference, chapter 1, for details on how to make the determination.)

☐ Yes ☒ No

The Proposed Action is intended to enhance operational safety and efficiency. Additionally, the Proposed Action would not change project-related aircraft emissions below 3,000 feet AGL. The Proposed Action is not intended to change the number of aircraft operations and aircraft fleet mix. The Proposed Action is presumed to conform to the State Implementation Plan (SIP). The Proposed Action is a type of action that promotes the safe, orderly, and expeditious flow of aircraft traffic, including airport, approach, departure, and en route air traffic control (ATC) procedures. Therefore, these changes are presumed to conform as emissions from these types of actions are below the applicable *de minimis* levels (40 CFR 93.153[c][2][xxii]). The Environmental Protection Agency (EPA) regulations identify certain actions that would not exceed these thresholds, including ATC activities and adoption of approach, departure, and en route ATC procedures for aircraft operations above the mixing height specified in the applicable SIP (or 3,000 feet AGL) in places without an established mixing height.

According to FAA Order 1050.1F, Exhibit 4-1, an emissions impact is significant if “[t]he action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards, as established by the EPA under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

Under Section 176(c)(4) of the Clean Air Act (42 U.S.C. § 7506(c)) and EPA regulations at 40 CFR Parts 51 and 93 (commonly referred to as the General Conformity Rule), the FAA must ensure that its activities do not cause or contribute to new violations of the National Ambient Air Quality Standards, worsen existing violations of the National Ambient Air Quality Standards, or delay attainment of the National Ambient Air Quality Standards. When developing the General Conformity Rule, the EPA recognized that many actions conducted by federal agencies do not result in substantial increases in air pollutant emissions in nonattainment and maintenance areas. Therefore, the EPA established threshold levels (also referred to as *de minimis* levels) for emissions of each of the criteria pollutants. When the sum of the increases from the direct and indirect emissions of a project would be less than the *de minimis* levels, a project would not require a general conformity determination.

Implementation of the Proposed Action is not expected to affect air quality and is presumed to conform as Category 14, "Air Traffic Control Activities and Adopting Approach, Departure and En Route Procedures for Air Operations," as identified in the General Conformity Rule, 72 Federal. Register 41565–41580 (July 30, 2007).

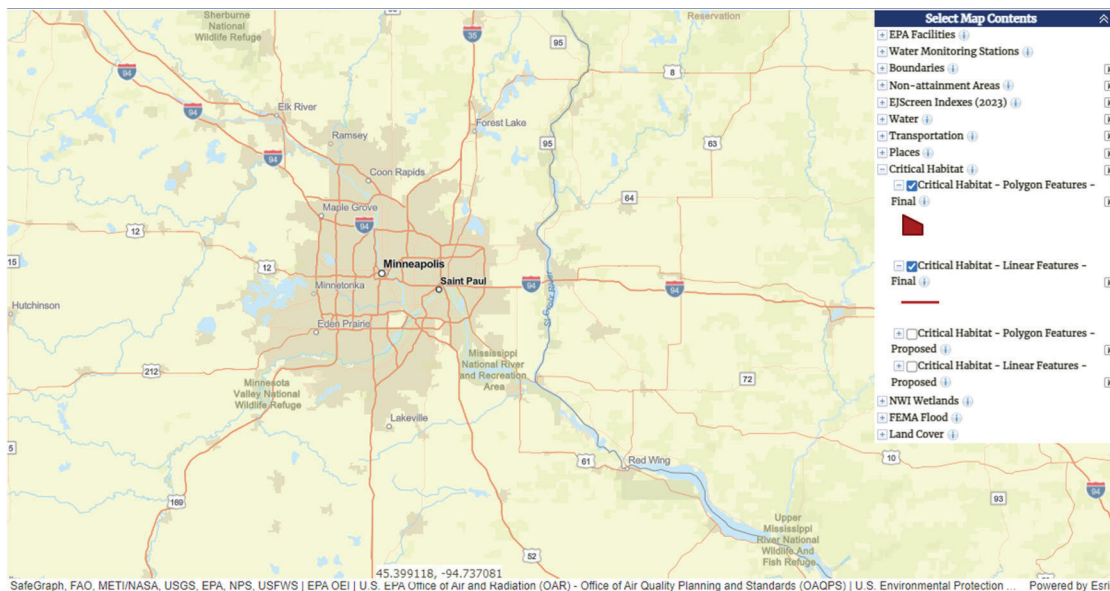
4.2.2. Biological Resources (including Marine Mammals; Wildlife and Waterfowl; Endangered/Threatened Species; Critical Habitat)

4.2.2.1. Are wildlife and/or waterfowl refuge/management areas, protected or critical habitats within the affected area of the proposed action?

☐ Yes ☒ No

Identify:

NEPAssist does not show any critical habitats in the area.



4.2.2.2. If so, has there been any communication with the appropriate wildlife management regulatory agencies (federal or state) agencies to determine if endangered or protected species inhabit the area?

☐ Yes ☐ No

If yes, identify endangered or protected species.

N/A

4.2.2.3. At what altitude would aircraft overfly these habitats?

N/A

4.2.2.4. During what times of the day would operations be more/less frequent?

N/A

- 4.2.2.5. Evaluation:** Will implementation of the proposed action result in an impact on natural, ecological or biological resources of federal, tribal, state, or local significance (for example, federally listed or proposed endangered, threatened, or candidate species or proposed or designated critical habitat under the Endangered Species Act)? (See FAA Order 1050.1, paragraph 5-2. b. (3), and 1050.1 Desk Reference, chapter 2, for details on how to make the determination.)

4.2.2.a. ☐ Yes

4.2.2.b. ☒ No.
No impact is expected.

4.2.3. Climate

NOTE: The FAA has not established a significance threshold for climate. The Council on Environmental Quality (CEQ) has noted that "...it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions; as such direct linkage is difficult to isolate and to understand."¹ Accordingly, it is not useful to attempt to determine the significance of such impacts. (See FAA Order 1050.1, Desk Reference, chapter 3.)

4.2.4. Coastal Resources

NOTE: Coastal resources include both coastal barriers and coastal zones.

4.2.4.1. Are there designated coastal resources in the affected area?
☐ Yes ☒ No

4.2.4.2. Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground with the potential to affect coastal resources?
☐ Yes ☒ No

This project is completely off ground.

Evaluation: Will implementation of the proposed action result in an impact in to coastal resources? (See FAA Order 1050.1, paragraph 5-2. b. (4), and 1050.1 Desk Reference, chapter 4, for details on how to make the determination.)

4.2.4.a. ☐ Yes.

4.2.4.b. ☒ No. An impact to coastal resources is not anticipated.
There are no coastal resources near the project area.

¹ Draft NEPA Guidance on *Consideration of the Effects of Climate Change and Greenhouse Emissions*, CEQ (2010).
http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_ofGHG_Draft_NEPA_Guidance_FINAL_02182010.pdf

4.2.5. Department of Transportation Act, Section 4(f)

- 4.2.5.1. Are there cultural or scenic resources, of national, state, or local significance, such as national parks, publicly owned parks, recreational areas, and public and private historic sites in the affected area?

☒ Yes ☐ No

Identify: Any properties that might be in the project area are already overflowed. The proposed procedures were designed to mimic current procedures (see project boards in Appendix A).

- 4.2.5.2. If so, during what time(s) of the day would operations occur that may impact these areas?

No impacts are expected because the proposed procedures were designed to mimic current procedures.

Evaluation: Will implementation of the proposed action result in an impact to properties protected under Section 4(f) of the Department of Transportation Act? (See FAA Order 1050.1, paragraph 5-2. b. (2), and 1050.1 Desk Reference, chapter 5, for details on how to make the determination.)

4.2.4.c. ☐ Yes.

4.2.5.a. ☒ No.

The project does not plan to introduce aircraft overflights to areas that are not currently already overflowed.

4.2.6. Farmlands

Are the following resources present: National Resources Conservation designated prime and unique farmlands or, state, or locally important farmlands including pastureland, cropland, and forest?

☐ Yes ☒ No

Evaluation: Will the implementation of the proposed action involve the development of land regardless of use, or have the potential to convert any farmland to non-agricultural uses? (See FAA Order 1050.1, paragraph 5-2. b. (4), and the 1050.1 Desk Reference, chapter 6, for details on how to make the determination.)

4.2.6.a. ☐ Yes.

4.2.6.b. ☒ No.

The project is completely off ground and no development is expected.

4.2.7. Hazardous Material, Solid Waste, and Pollution Prevention

Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground in an area known to contain hazardous materials, hazardous waste, solid waste, or other forms of pollution or contamination?

☐ Yes ☒ No

Evaluation: Is implementation of the proposed action likely to cause contamination by hazardous materials, hazardous waste, or likely to disturb existing hazardous materials, hazardous waste site, or other area of contamination? (See FAA Order 1050.1, paragraph 5-2. b. (12), and the 1050.1 Desk Reference, chapter 7, for details on how to make the determination.)

4.2.7.a. ☐ Yes.

4.2.7.b. ☒ No. An impact to existing areas of hazardous material, hazardous or solid waste, or pollution prevention activities, is not anticipated; and implementation of the proposed action is not anticipated to result in the production of hazardous material, hazardous or solid waste.

4.2.8. National Historic Preservation Act of 1966 (NHPA)

NOTE: Section 106 of the NHPA applies to actions that have the potential to affect historic properties in a way that alters any of the characteristics that make the property significant, including changes in noise where a quiet setting is an attribute of significance. Direct effects include the removal or alteration of historic resources. Indirect effects include changes in noise, vehicular traffic, light emissions, or other changes that could interfere substantially with the use or character of the resource.

4.2.8.1. Are there historic resources protected under Section 106 of the NHPA in the study area of the proposed action?

☒ Yes ☐ No

4.2.8.2. Will the proposed action include removal or alteration of historic resources (direct effect)?

☐ Yes ☒ No

4.2.8.3. Do any of the historic resources identified have quiet as a generally recognized feature or attribute?

☐ Yes ☒ No

If yes, explain:

4.2.8.4. Will the proposed action substantially interfere with the use or character of the resource (indirect effect)?

☐ Yes ☒ No

Evaluation: Will the proposed action result in an adverse effect on resources protected under the National Historic Preservation Act of 1966, as amended? (See FAA Order 1050.1, paragraph 5-2. b. (1), and the 1050.1 Desk Reference, chapter 8, for details on how to make the determination.)

4.2.8.a. ☐ Yes.

4.2.8.b. ☒ No.

An impact to resources subject to Section 106 review is not anticipated. The procedures were designed to mimic the current procedures. Section 106 consultation letters were sent to the Minnesota State Historic Preservation Officer and eleven tribes. We received two responses of concurrence and no other responses. See Appendix C.

Letters were sent to the following recipients:

Section 106 Consultation
Minnesota Department of Administration
Apache Tribe of Oklahoma
Flandreau Santee Sioux Tribe of South Dakota
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
Iowa Tribe of Kansas and Nebraska
Menominee Indian Tribe of Wisconsin
Prairie Island Indian Community in Minnesota
Santee Sioux Nation
Shakopee Mdewakanton Sioux Community
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
Spirit Lake Tribe
Upper Sioux Community

4.2.9. Land Use

The compatibility of existing and planned land uses with an aviation or aerospace proposal is usually associated with noise impacts. In addition to the impacts of noise on land use compatibility, other potential impacts of FAA actions may affect land use compatibility. The impact on land use, if any, should be analyzed and described under the appropriate impact category.

Evaluation: The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts. (See 1050.1 Desk Reference, chapter 9, for details on how to make the determination.)

4.2.10. Natural Resources and Energy Supply

NOTE: *This resource category excludes fuel burn.*

Will the proposed action have the potential to cause demand or strain on a natural resource(s) or material(s) that exceeds current or future availability of these resources? (See FAA Order 1050.1, paragraph 5-2. b. (4).

☐ Yes ☒ No

If yes, explain: N/A

Evaluation: Will implementation of the proposed action result in an impact in relation to natural resources and energy supply?

4.2.10.a. ☐ Yes.

4.2.10.b. ☒ No.

This is an air traffic procedure only and is not anticipated to have any impacts on natural resources and materials and/or energy supply.

4.2.11. Noise and Noise-Compatible Land Use

The significance threshold for noise is whether the proposed action would increase noise by Day-night average sound level (DNL) 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level; or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB increase, when compared to the No Action alternative for the same timeframe.

NOTE: *An area is noise sensitive if aircraft noise may interfere with the normal activities associated with the use of the land. See FAA Order 1050.1, paragraph 11–5. b. (10), for the full definition of noise sensitive areas.*

Noise compatibility or non-compatibility of land use is determined by comparing the proposed action DNL values to the values in the 14 CFR Part 150, Appendix A, Table 1, Land-Use Compatibility guidelines. (See FAA Order 1050.1 and the 1050.1 Desk Reference, section 11.)

NOTE: *14 CFR Part 150 guidelines are not sufficient to address the effects of noise on some noise sensitive areas.*

4.2.11.1.1. Will the proposed action introduce air traffic over noise sensitive areas *not* currently affected?

☐ Yes ☒ No

Comment:

The proposed procedures were designed to mimic current flight tracks.

4.2.11.1.2. Do the results of the noise analysis indicate that the proposed action would result in an increase in noise exposure by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level?

☐ Yes ☒ No

4.2.11.1.3. If yes, are the results of the noise analysis incompatible with one or more of the Land Use Compatibility categories? (See FAA Order 1050.1, Desk Reference Exhibit 11-3.)

☐ Yes ☐ No

N/A

If yes, explain:

4.2.11.1.4. Do the results of the noise analysis indicate a threshold of significance over noise sensitive areas *not* listed under the Land Use Compatibility categories (for example, national parks, wildlife/waterfowl refuges)?

☐ Yes ☒ No

If yes, explain:

4.2.11.2. Do the results of the noise analysis indicate a change in noise meeting threshold criteria considered “reportable”?

i. For DNL 60 dB to <65 dB: + 3 dB ☐ Yes ☒ No

ii. For DNL 45 dB to <60 dB: + 5 dB ☐ Yes ☒ No

Evaluation:

The FAA completed noise modeling using the Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS) Environmental Plug-in tool, which uses the Aviation Environmental Design Tool to calculate noise. The FAA obtained historic radar track data for KMSP from the Performance Data Analysis and Reporting System (PDARS). Dates where runways were closed for construction projects were removed from consideration and dates were randomly selected from the remaining available dates within a recent 12-month period (July 2, 2022-June 30, 2023). The FAA selected random dates to represent average typical runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions.

After the removal of overflights and incomplete track segments, 59,532 total tracks were used for the analysis. The FAA considered the altitude of the historical tracks and set a range ring to contain the area where most of the tracks reached above 10,000 feet AGL. This established the study area for the noise analysis. In the case of KMSP, the range was set at 35 nautical miles (NM).

- 4.2.11.a.** Will the proposed action result in a significant noise impact over noise sensitive land use? (See FAA Order 1050.1, paragraph 5-2. b. (7), and the 1050.1 Desk Reference, chapter 11, for details on how to make the determination.)

☐ Yes

If yes, explain:

- 4.2.11.b.** ☒ No. The results of the noise screening indicate that no significance threshold in noise criteria is reached as a result of the implementation of the proposed. See Appendix D.

- 4.2.11.c.** Will the proposed action result in a significant noise impact over noise sensitive areas? (See FAA Order 1050.1, paragraph 5-2. b. (7), and the 1050.1 Desk Reference, chapter 8, for details on how to make the determination.)

☐ Yes

If yes, explain:

- 4.2.11.d.** ☒ No. The results of the noise screening indicate that no reportable noise impacts are expected to result from the implementation of the proposed action. See Appendix D.

4.2.12. Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risk

4.2.12.1. Socioeconomics

4.2.12.1.a. Will the proposed action result in a division or disruption of an established community; a disruption of orderly, planned development; or an inconsistency with plans or goals that have been adopted by the community in which the proposed action is located? (See FAA Order 1050.1, paragraph 5-2. b. (5).)

☐ Yes ☒ No

4.2.12.1.b. Will the proposed action result in an increase in congestion from surface transportation, by causing a decrease in the Level of Service below the acceptable level determined by the appropriate transportation agency? (i.e., a highway agency) [See FAA Order 1050.1, paragraph 5-2 b. (6).]

☐ Yes ☒ No

This is an air traffic procedure only and is not expected to have any impacts on congestion from surface transportation.

Evaluation: Will implementation of the proposed action result in an impact to socioeconomics? (See the 1050.1 Desk Reference, chapter 12, for details on how to make the determination.)

4.2.12.a. ☐ Yes

Comment:

4.2.12.b. ☒ No.

This is an air traffic procedure only and is not expected to have any impacts on acquisition of real estate, relocation of residence or community business, disruption of local traffic patterns, loss of community tax base, or changes to the fabric of the community.

4.2.12.2. Environmental Justice

NOTE: FAA has not established a significance threshold for Environmental Justice. Impacts to Environmental Justice in the context of other impact categories should be considered.

Evaluation: Will the proposed action have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, (i.e., a low income or minority population) due to significant impacts in other environmental impact categories or impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population? (See the 1050.1 Desk Reference, chapter 12, for details on how to make the determination.)

4.2.12.2.a. ☐ Yes4.2.12.2.b. ☒ No.**Socioeconomic and Environmental Justice Data**

State	County	County % Minority	State % Minority	National % Minority
Minnesota	Hennepin	33.28%	22.49%	38.37%
	Ramsey	40.45%		
	Dakota	24.87%		
	Washington	20.90%		
	Carver	13.54%		
	Anoka	23.01%		
	Scott	22.35%		
	Goodhue	9.94%		
	Le Sueur	9.36%		
Wisconsin	Pierce	7.69%	19.62%	
	St. Croix	7.81%		

State	County	County % Low Income	State % Low Income	National % Low Income
Minnesota	Hennepin	9.77%	8.96%	12.34%
	Ramsey	12.94%		
	Dakota	5.56%		
	Washington	4.16%		
	Carver	3.25%		
	Anoka	5.57%		
	Scott	5.10%		
	Goodhue	8.19%		
	Le Sueur	7.91%		
Wisconsin	Pierce	7.96%	10.54%	
	St. Croix	4.91%		

The analysis indicates that less than 10% of the population on average is below the poverty level throughout the study area. Although minority and low-income populations are present in the study area, these communities are interspersed with middle- and high-income communities and non-minority populations within the study area. In addition, most of the study area covers areas that do not have distinct minority or low-income populations. Moreover, aircraft have historically overflowed the study area and the proposed procedures were designed to mimic current flight tracks. An impact related to environmental justice is not anticipated. Additionally, the results of the noise screening analysis, when compared to the No Action Alternative, indicate that changes in noise exposure levels are below the

threshold of significance for implementation of the Action. The Action has no new social or economic effects on the study area. There are no impacts on the physical or natural environment that affect environmental justice populations in a way that is unique to that population or significant to that population. Based on the findings of the other impact categories included in this review, no significant environmental impacts were identified. In addition, there are no disproportionate or adverse impacts on minority or low-income populations as a result of the Action as compared to the No Action Alternative.

4.2.12.3. Children's Environmental Health and Safety Risk

NOTE: *FAA has not established a significance threshold for Children's Environmental Health and Safety Risk. Impacts to Children's health and safety in the context of other impact categories should be considered.*

Evaluation: Will the proposed action have the *potential* to lead to a disproportionate health or safety risk to children due to significant impacts in other environmental impact categories? (See the 1050.1 Desk Reference, chapter 12, for details on how to make the determination.)

4.2.12.3.a. ☐ Yes

4.2.12.3.b. ☒ No.

4.2.13. Visual Effects

NOTE: *There are no special purpose laws for light impacts and visual impacts. Impacts from light emissions are generally related to airport aviation lighting.*

4.2.13.1. Will implementation of the proposed action create annoyance or interfere with normal activities from light emissions?

☐ Yes ☒ No

Explain:

No changes in light emissions is expected from the proposed action.

4.2.13.2. Will implementation of the proposed action affect the visual character of the area including the importance, uniqueness, and aesthetic value of the affected visual resources?

☐ Yes ☒ No

Explain:

Aircraft will continue to fly in the same areas they are currently flying. The proposed procedures were designed to mimic current procedures. See Appendix A.

Evaluation: Will the proposed action result in an impact to visual resources? (See FAA Order 1050.1, paragraph 5-2. b. (5), and 1050.1 Desk Reference, chapter 13, for details on how to make the determination.)

4.2.13.a. ☐ Yes

4.2.13.b. ☒ No.

Aircraft will continue to fly in the same areas they are currently flying so no change in visual resources is expected.

4.2.14. Water Resources (including Wetlands, Flood Plains, Surface Waters, Groundwater, and Wild and Scenic Rivers)

4.2.14.1. Are there wetlands, flood plains, and/or Wild and Scenic Rivers in the proposed action study area?

☐ Yes ☒ No

4.2.14.2. Are there reservoirs or other public water supply systems in the affected area?

☐ Yes ☒ No

4.2.14.3. Will implementation of the proposed action result in any construction or development or any physical disturbances of the ground?

☐ Yes ☒ No

4.2.14.4. Will implementation of the proposed action result in any changes to existing discharges to water bodies, create a new discharge that would result in impacts to water quality, or modify a water body?

☐ Yes ☒ No

If yes, is there a potential for an impact to water quality, sole source aquifers, a public water supply system, federal, state or tribal water quality standards established under the Clean Water Act and the Safe Drinking Water Act?

☐ Yes ☐ No

Evaluation: Will the proposed action result in an impact to water resources? (See FAA Order 1050.1, paragraph 5-2. b. (9), and 1050.1 Desk Reference, chapter 14, for details on how to make the determination.)

4.2.14.a. ☐ Yes

4.2.14.b. ☒ No.

This is an air traffic procedure only therefore it is not anticipated that there will be any impacts to water resources.

4.2.15. Effects on the Quality of the Human Environment that are Likely to be Highly Controversial on Environmental Grounds.

NOTE: The term “highly controversial on environmental grounds” means there is a substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm. Mere opposition is not sufficient for a proposed action or its impacts to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a federal, state, or local government agency or by a tribe or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement regarding the impacts of a proposed action exists.

NOTE: If in doubt about whether a proposed action is highly controversial on environmental grounds, consult the Line of Business/Staff Office (LOB/SOB) headquarters environmental division, AEE, Regional Counsel, or AGC for

assistance. (See FAA Order 1050.1, paragraph 5–2. b. (10).)

4.2.15.1. Will implementation of the proposed action result in the likelihood of an inconsistency with any federal, state, tribal, or local law relating to the environmental aspects of the proposed action. (See FAA Order 1050.1, paragraph 5-2. b. (11).)

☐ Yes ☒ No

If yes, explain:

Evaluation: Is there likelihood for the proposed action to be highly controversial based on environmental grounds?

4.2.15.a. ☐ Yes

4.2.15.b. ☒ No. Controversy based on environmental grounds is not anticipated because aircraft will continue flying in the general areas they are already flying. The proposed procedures were designed to mimic current flight tracks. The MAC was part of the work group to develop the procedures and the Noise Oversight Committee provided feedback that was considered in the designs.

Section 5. Mitigation

Are there measures which can be implemented that might mitigate any of the potential impacts, i.e., GPS/FMS plans, NAVAIDS, etc.?

☐ Yes ☐ No ☒ N/A

Describe:

There are no potential impacts expected that would need to be mitigated.

Section 6. Cumulative Impacts

What other projects (FAA, non-FAA, or non-aviation) are known, planned, have been previously implemented, or are ongoing in the affected area that would contribute to the proposed project's environmental impact?

Currently, the FAA is in a testing phase for Converging Runway Operations (CRO) to determine a long-term solution. This could change runway usage during peak operation times. To determine if there could be cumulative impacts from CRO, the runway use changes were calculated into an alternative scenario in the noise screening. There were no significant or reportable noise changes. Therefore, no cumulative impacts are expected from CRO. A separate environmental study will be conducted for that project.

Section 7. Community Involvement

Community involvement is the process of engaging in dialog and collaboration with communities affected by FAA actions. The appropriate level of community involvement and public engagement will vary to some degree depending on the project scope and affected communities. (See FAA Order JO 7400.2, appendices 10 and 11, and the Community Involvement Performance Based Navigation Desk Guide, and/or AEE's Community Involvement Manual, or other available Community Involvement guidance for further information.)

- 7.1. Are the airport proprietor and/or users providing general support for the proposed action?

☒ Yes ☐ No

The MAC was part of the workgroup in developing the proposed procedures. Additionally, the FAA added a review and feedback period for the Noise Oversight Committee (NOC) that concluded February 1, 2024. The NOC's feedback and FAA's responses are in the Community Involvement Summary Report in Appendix E.

- 7.2. Are local community leaders or groups who could have an interest in FAA activity (i.e., aviation roundtables, historical preservation society, etc.) due to their location or by their function in the community been notified, consulted, or otherwise informed of this proposed action?

☒ Yes ☐ No ☐ Not Known

Specific community involvement milestones include:

- 1st Workgroup meeting: January 2023
- 2nd Workgroup meeting: May 2023
- 3rd Workgroup meeting: August 2023
- Briefing to the Metropolitan Airport Commission: October 2023
- Briefing to the Noise Oversight Committee: November 2023
- 4th Workgroup meeting: February 2024
- 1st Public Webinar: August 14, 2024
- 2nd Public Webinar: August 15, 2024
- Comment period: through September 15, 2024

- 7.3. Are local citizens aware of the proposed action?

☒ Yes ☐ No ☐ Not Known

The FAA has provided updates during NOC meetings. The FAA also held public webinars with live question and answer sessions. A 30 day public comment period was provided. A summary of the community involvement can be found in Appendix E.

- 7.4. Has the FAA received one or more comments objecting to the proposed project on environmental grounds from local citizens or elected officials?

☒ Yes ☐ No

- 7.4.1. If so, state the nature of the comment and how the FAA was notified (for example, resolution, Congressional, Public meeting/workshop, etc.).

A letter was received from The City of Minneapolis stating they believe there is potential for objection on environmental grounds because previous projects in the area have been controversial.

- 7.4.2. How is the comment(s) being responded to? Can the comment(s) be mitigated through changes in design?

The response to comments can be found in the Community Involvement Summary Report in Appendix E.

7.5. Is the proposed project consistent with local plans and development efforts?

☒ Yes ☐ No

7.6. Has there been any previous aircraft-related environmental or noise analysis, including a FAR Part 150 Study, conducted at this location?

☒ Yes ☐ No

7.6.1. If so, was the study reviewed as a part of this initial review?

☒ Yes ☐ No ☐ N/A

Section 8. References/Correspondence

See Appendices.

Section 9. Additional Preparers

The person(s) listed below, in addition to the preparer indicated on page 1, are responsible for all or part of the information and representations contained herein:

Section 10. Service Area Conclusions

☒ This initial review and analysis indicates that no extraordinary circumstances or other reasons exist that would cause the responsible federal official to believe that the proposed action might have the potential for causing significant environmental impacts. The undersigned have determined that the proposed action qualifies as a categorically excluded action in accordance with FAA Order 1050.1, and on this basis, recommend that further environmental review need not be conducted before the proposed project is implemented.

Service Area Environmental Specialist Review/Concurrence

**KRISTI
REGOTTI**

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KRISTI REGOTTI

Date: 2025.01.06

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Kristi Regotti

Environmental Protection Specialist, Operations Support Group

Central Service Center, AJV-C25

Group Manager Review/Concurrence

**VONNIE L
GILES**

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Date: 2025.01.07

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Vonnie L. Giles

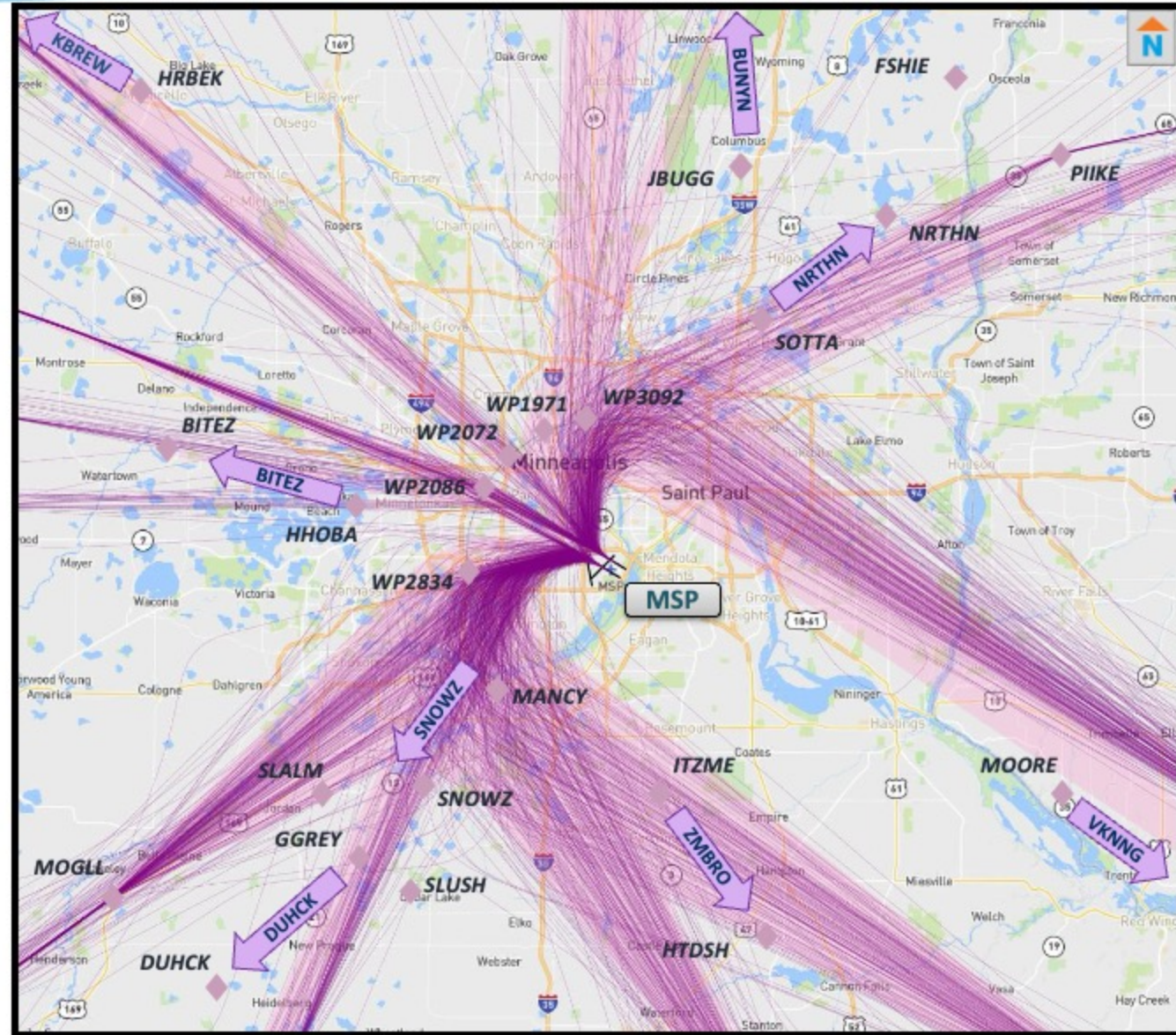
Manager (A), Operations Support Group

Central Service Center, AJV-C2

Appendix A

Procedure Boards

Procedure Board Overview



NRTN → **Procedure** – All procedures use a five-letter designation. This procedure is pronounced “Northern”. The arrow indicates the direction of travel for departing or arriving procedures.

Departures

TORG → **Arrivals**

Waypoint – Represents a latitude/longitude point on a procedure. Waypoints also use five-letter designations. This waypoint is pronounced “Slush”

SLUSH

7 DME – Represents the existing area seven miles from the on-airport navigation equipment

Flight Path Area – Represents the area that aircraft will fly in the future when Air Traffic Controllers give pilots dispersed headings to follow, called vectors.

Departures

Arrivals

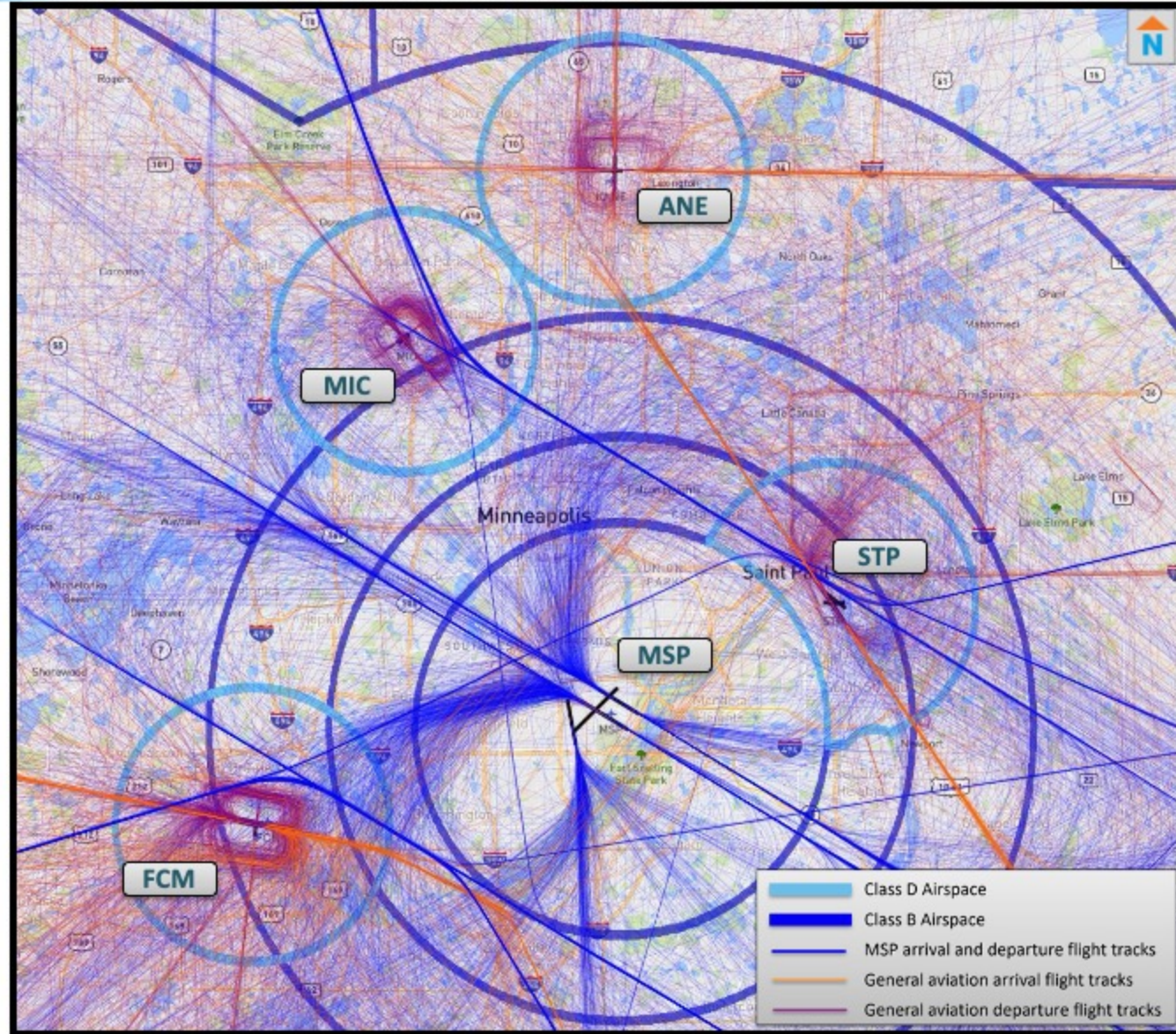
STAR Standard Terminal Arrival Route

SID Standard Instrument Departure

ATC Air Traffic Control

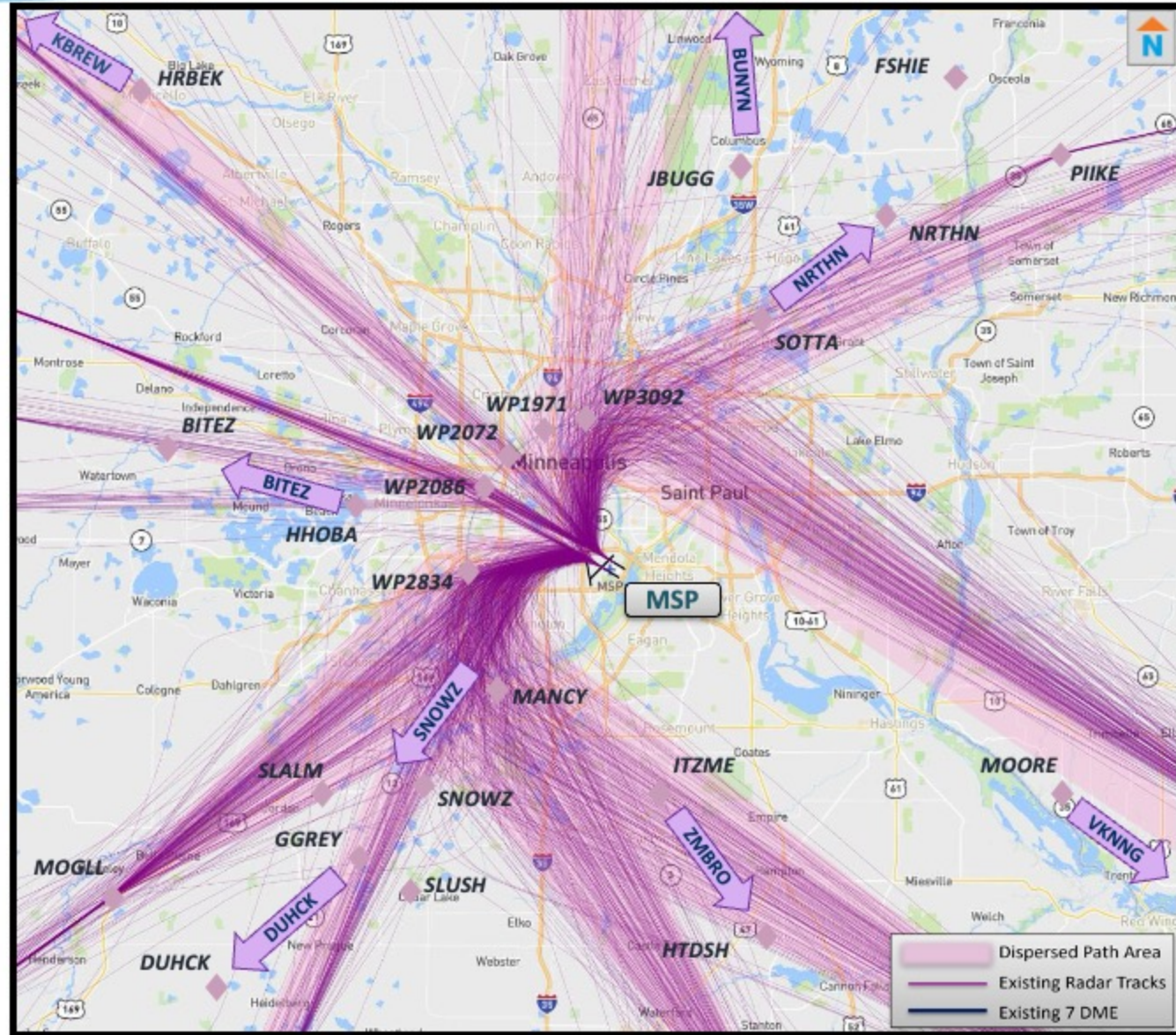
RNAV Area Navigation





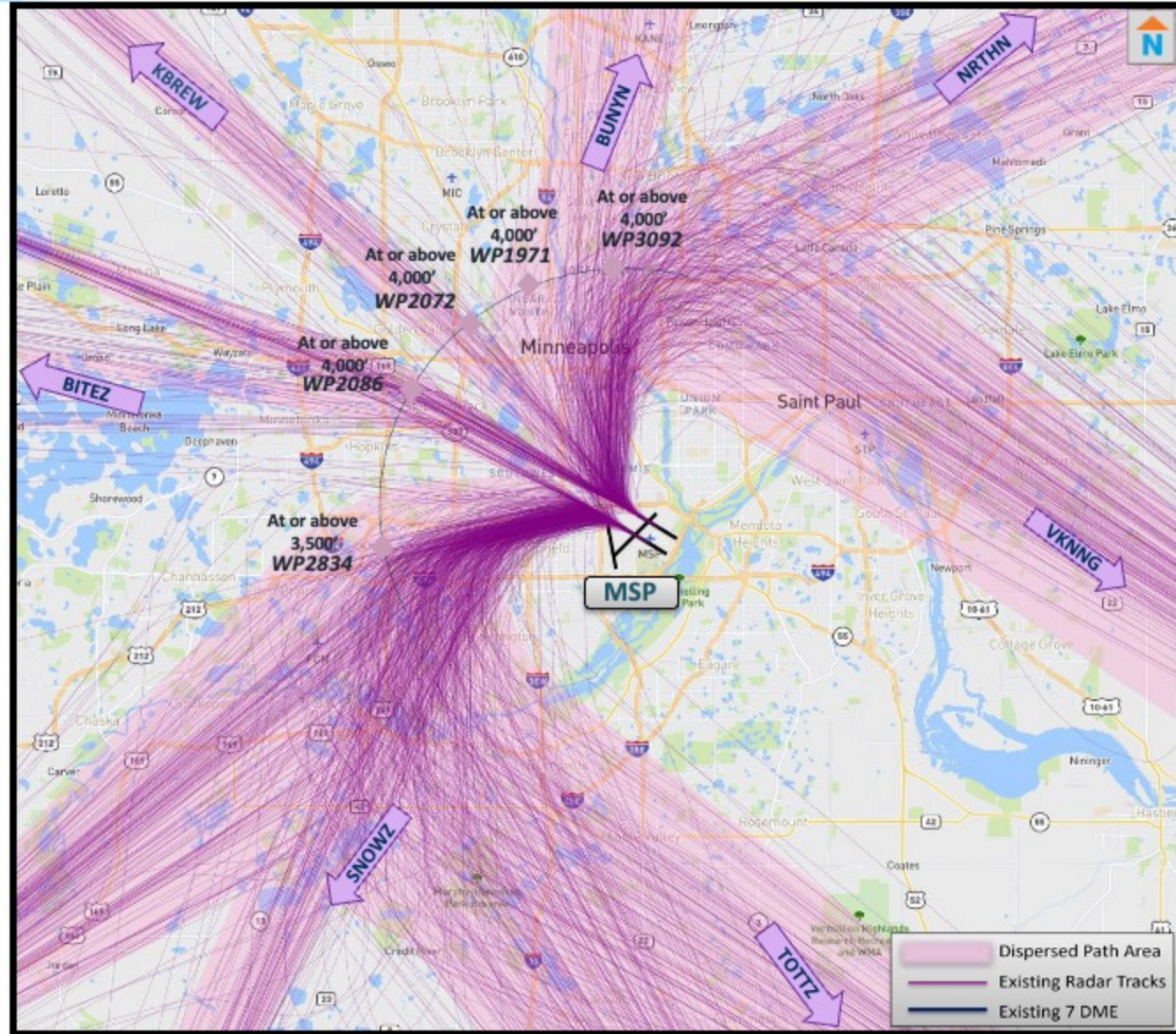
Minneapolis Metro Area Aircraft Operations

- This board shows flight tracks for Anoka County (ANE), Crystal (MIC), Flying Cloud (FCM), St. Paul Downtown (STP) and Minneapolis Int'l airports (MSP)
- Each airport has dedicated airspace with a control tower and air traffic controllers
- These other airports are used by corporate jets, flight schools, medical transportation, law enforcement, and recreation operations
- Flight procedures for each airport are designed to avoid adjoining airport airspace
- Airports may share procedures where aircraft from multiple airports are sequenced to join a procedure



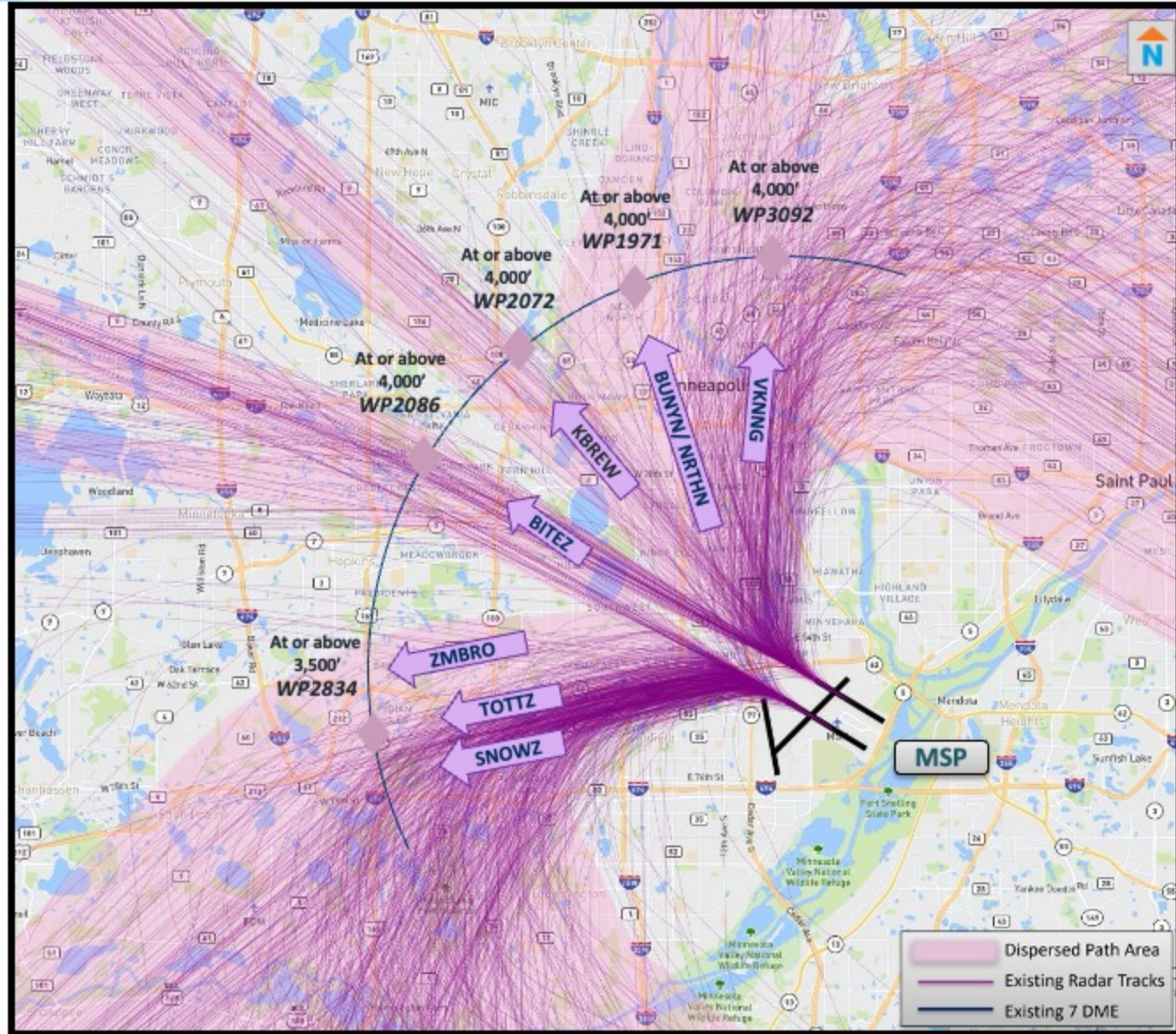
North Flow Departures Runway 30R & 30L

- This board shows a zoomed-out view of the proposed SIDs for north flow
- The new procedures include existing voluntary noise abatement
- The following boards are more zoomed-in and provide additional details



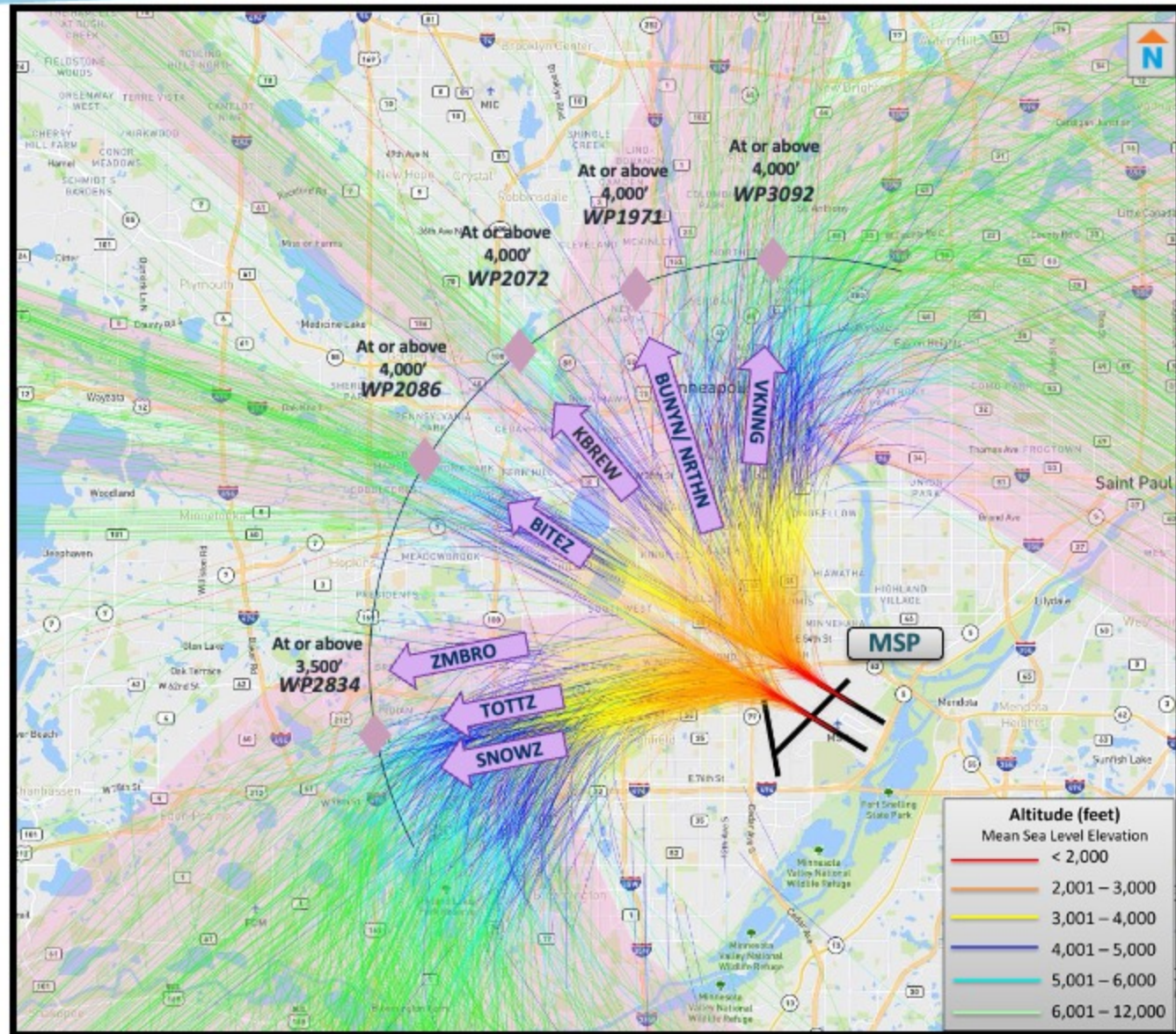
North Flow Departures Runway 30R & 30L

- This board shows a zoomed-in view of the proposed departures in north flow
- ATC normally assigns a departure procedure based on the most efficient route to the aircraft's destination
- The proposed departure procedures are designed to replicate the current procedures as close as possible, including aircraft dispersed on initial headings



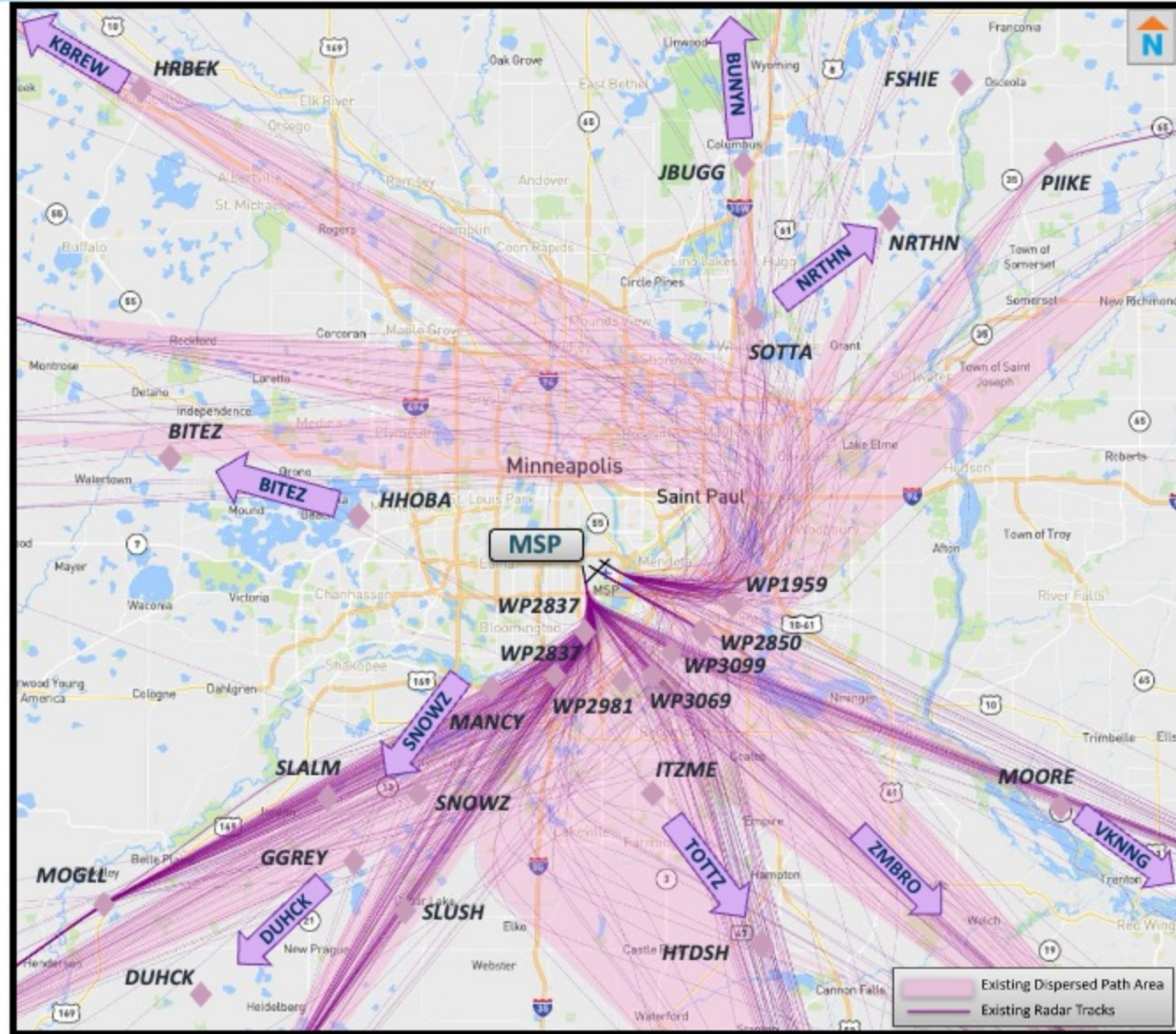
North Flow Departures Runway 30R & 30L

- This board shows a close-in version of proposed north flow departure procedures
- Aircraft will be issued a departure procedure based on destination
- Once aircraft take off and are at a safe altitude, ATC may turn aircraft on course, before reaching the initial waypoints, when it is operationally safe
- The waypoints are in the approximate area of the existing 7 DME arc, shown in blue
- The proposed procedures will mimic how aircraft depart MSP today, providing dispersion of flight tracks



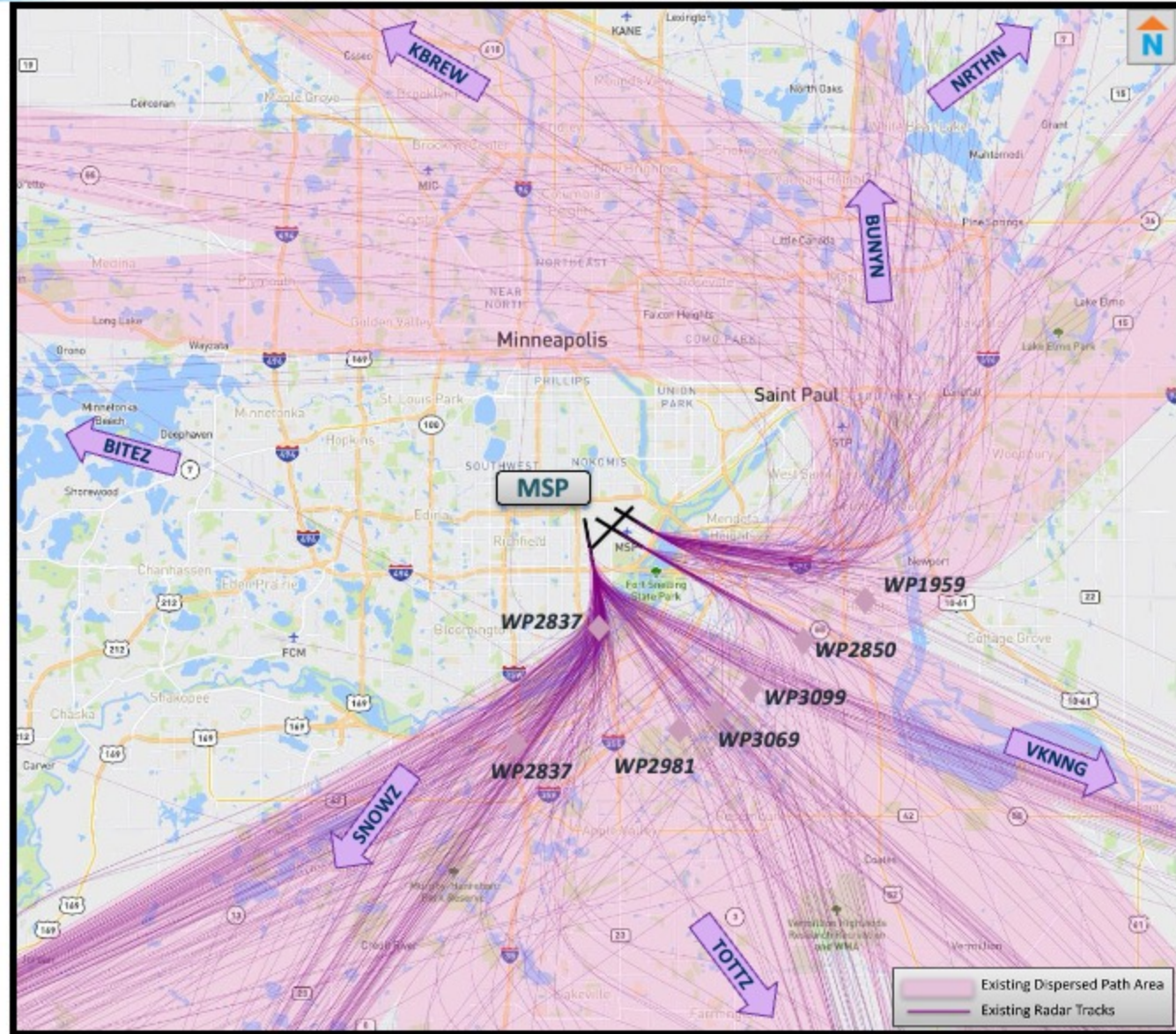
North Flow Departures Runway 30R & 30L

- This board shows a close-in view of proposed RNAV vector SIDs with existing flight tracks
- Existing aircraft flight tracks are shown color coded by altitude
- The proposed procedures reduce/eliminate the need to keep aircraft lower on departure, they may climb unrestricted
- The proposed procedures allow ATC to give an aircraft a heading and altitude to follow, reducing the need for progressive instructions



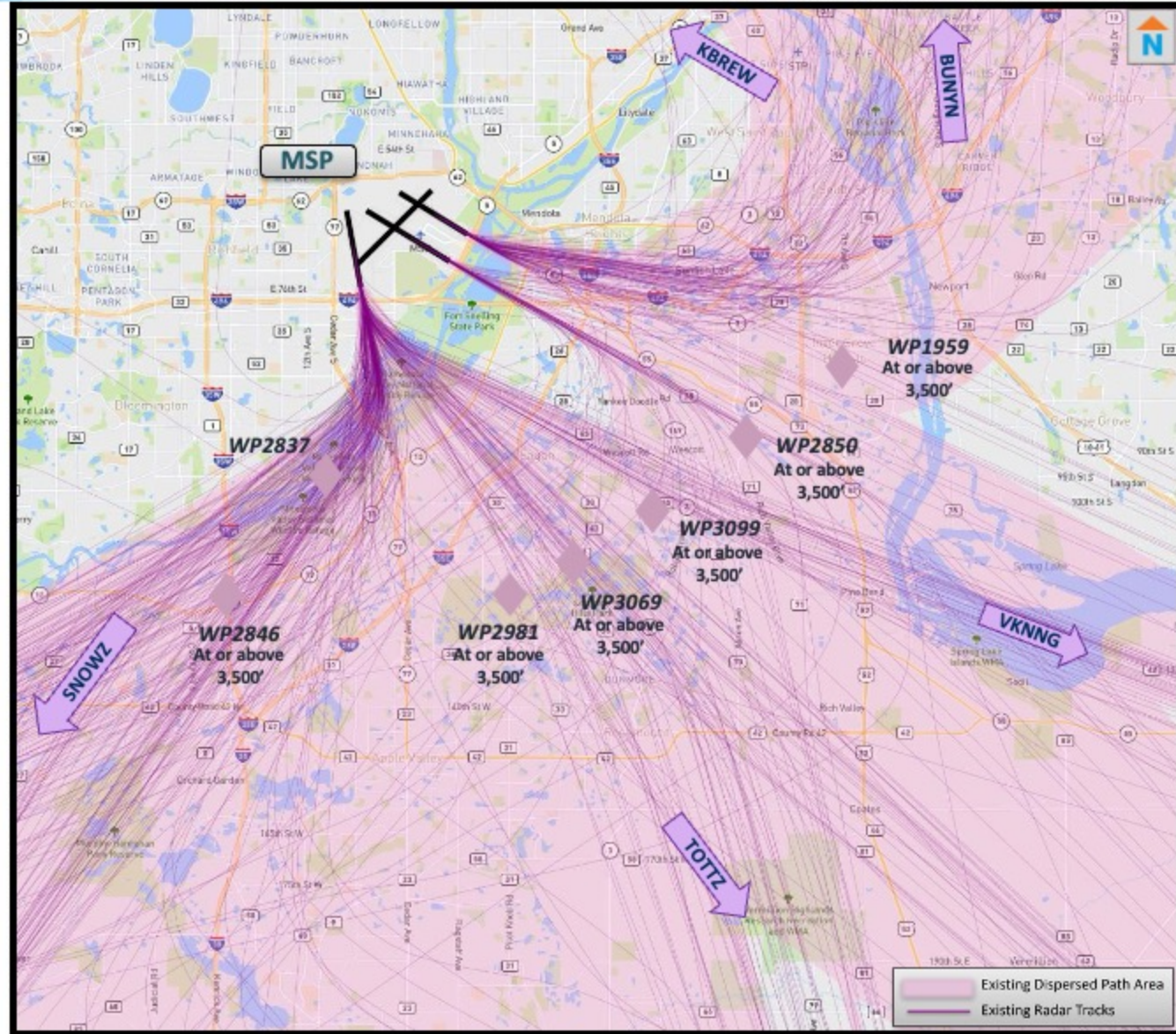
South Flow Departures Runway 12R & 12L, 17

- This board shows aircraft departing on SIDs from Runway 12R and 12L and Runway 17
- Aircraft departing Runway 12R and 12L will continue to use the Eagan-Mendota Heights Corridor
- Use of the Eagan-Mendota Heights Corridor maintains the Crossing-in-the-Corridor noise abatement procedure



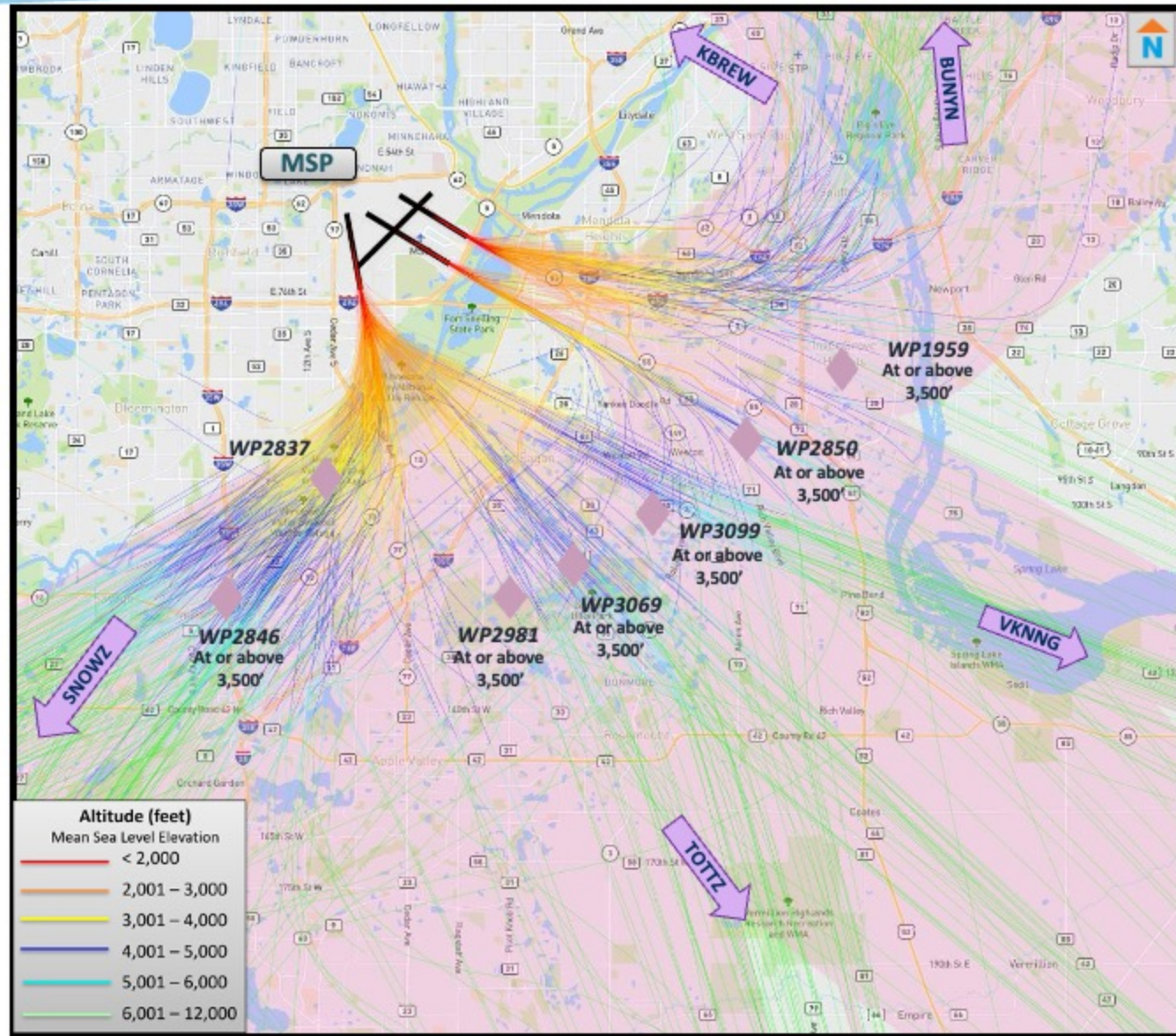
South Flow Departures Runway 12R & 12L, 17

- Aircraft are assigned an initial heading based on the aircraft destination, operational need, and sequencing of aircraft to maintain required separation
- The proposed initial headings replicate the VOR-based headings currently used to disperse departures
- The proposed procedures were designed to give ATC flexibility to manage air traffic for safety and efficiency, which inherently increases dispersion
- ATC normally assigns a departure procedure based on the most efficient route to the aircraft's destination



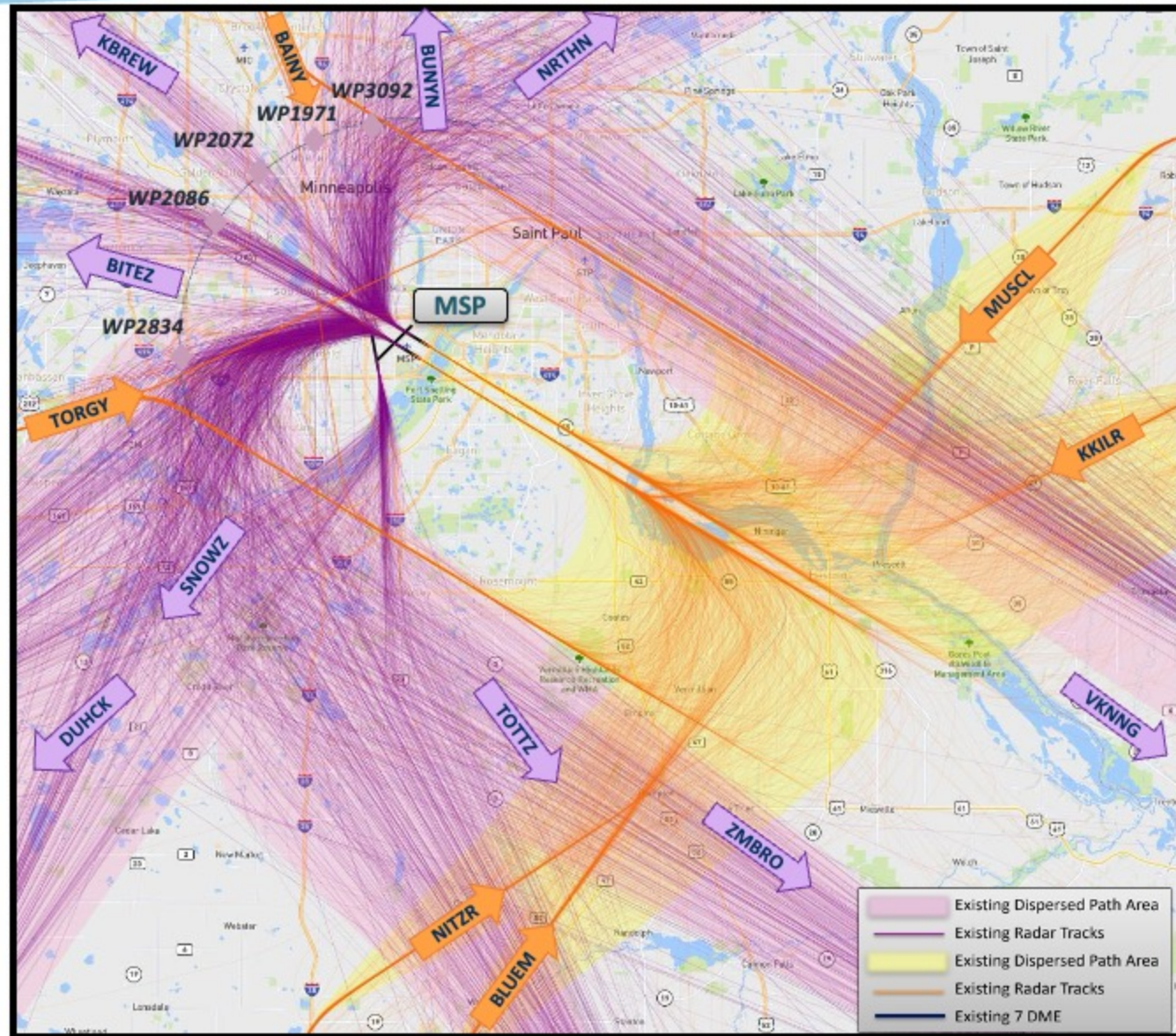
South Flow Departures Runway 12R & 12L, 17

- This board shows a close-in version of proposed south flow departure procedures and existing flight tracks.
- Once aircraft take off and are at a safe altitude, ATC may turn aircraft on course when it is operational safe
- For aircraft flying to the southwest, the proposed procedures include following the Minnesota River
- The proposed SIDs will provide the necessary separation from arriving aircraft



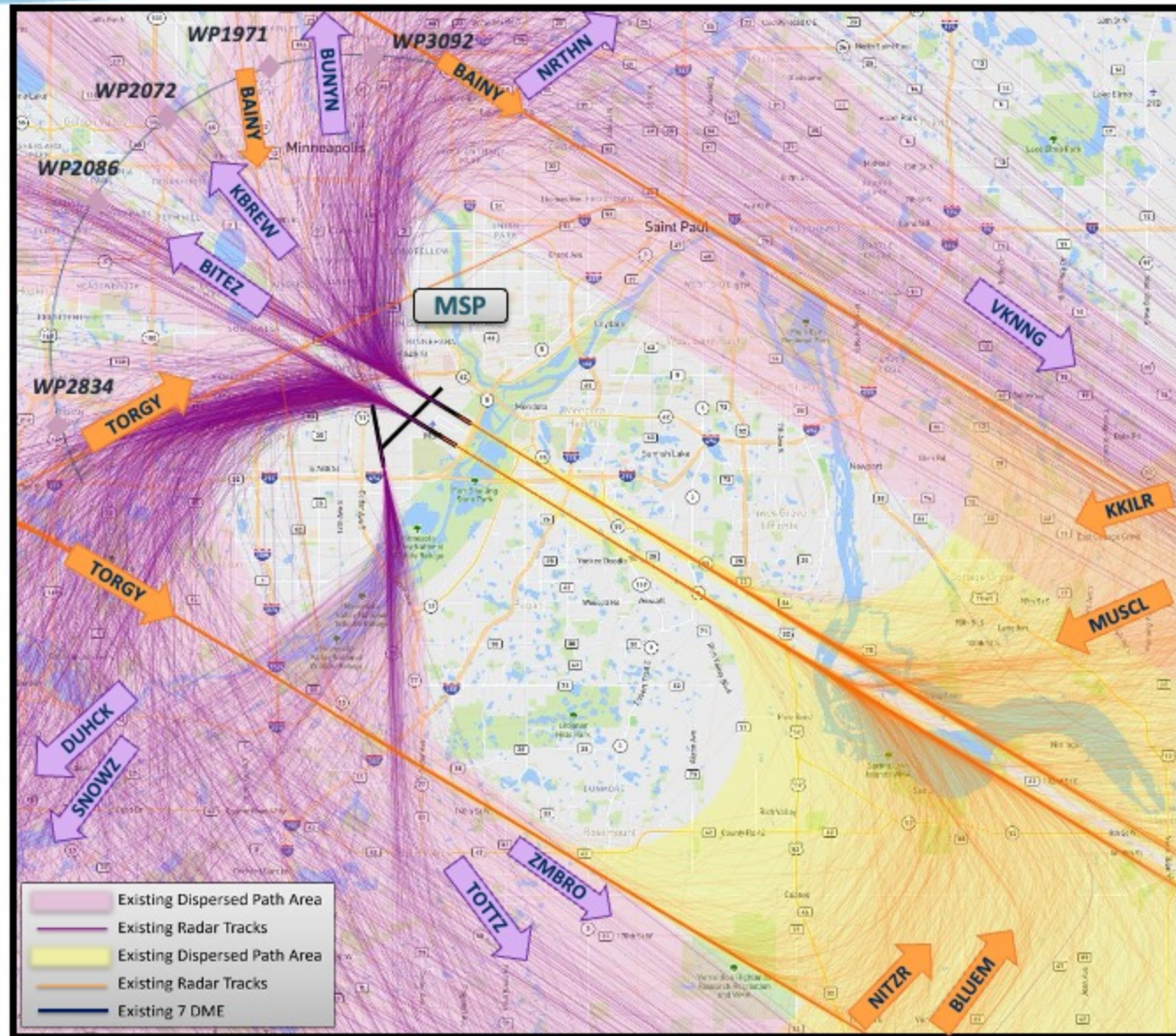
South Flow Departures Runway 12R & 12L, 17

- This board shows a close-in view of proposed RNAV vector SIDs with existing flight tracks.
- Existing aircraft flight tracks are shown color coded by altitude.
- The proposed procedures reduce/eliminate the need to keep aircraft lower on departure, they may climb unrestricted
- The proposed procedures allow ATC to give an aircraft a heading and altitude to follow, reducing the need for progressive instructions.



Mixed Flow Arrivals & Departures Runway 30L & 30R Departures Runway 17

- This board shows a zoomed in view of Mixed A flow
- In this operational flow, aircraft will land to the north and take off to the southwest and north
- Aircraft will also use the Eagan Mendota Heights corridor to land



Mixed Flow Arrivals & Departures Runway 30L & 30R Departures Runway 17

- This board shows the operational flow called Mixed A.
- In this operational flow, aircraft will land to the north and take off to the southwest and north
- Aircraft departing to the southwest will fly over the river

Appendix B

Procedure Descriptions

SNUPE RNAV SID	Minneapolis-St Paul Intl/Wold-Chamberlain: The SNUPE RNAV SID is replacing the COULT Conventional SID. The new procedure is designed maintain the current departure flow and provide safer and more efficient aircraft operations at the airport. Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5.50NM to cross FSHAY at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 105.00 for vectors to PNUTZ to fly assigned enroute transition or given alternate ATC instructions (i.e. vector to a different point or early turn depending on traffic flow). Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5NM to cross PGPEN at or above 3,500 ft MSL (approx. 2,590 ft AGL), then on track 120.00, for vectors to PNUTZ Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn right for approximately 6.85NM to cross SAALY at or above 4,000 ft MSL (approx. 3,150 ft AGL), then on track 000.00, for vectors to PNUTZ
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SNUPE RNAV SID	Satellite airports. THE SNUPE SID is also used for departures at Anoka County/Blane (Janes Field (KANE), Flying Cloud Airport (FCM), and St. Paul Downtown Holman Field (KSTP) Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to PNUTZ, then as depicted. PNUTZ is approximately 20 NM northwest of where the original COULT transition started. By bringing it closer to the airport, the new transition allows air traffic control to direct aircraft to proceed on course much sooner than before.
KBREW RNAV SID	Minneapolis-St Paul Intl/Wold-Chamberlain: The KBREW RNAV SID is replacing the KBREW Conventional SID. The new procedure is designed maintain the current departure flow and provide safer and more efficient aircraft operations at the airport.

KBREW RNAV SID	Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5.50NM to cross FSHAY at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 105.00 for vectors to HRBEK Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5NM to cross PGPEN at or above 3,500 ft MSL (approx. 2,590 ft AGL), then on track 120.00, for vectors to HRBEK Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn right for approximately 6.6NM to cross GARDI at or above 4,000 ft MSL (approx. 3,150 ft AGL), then on track heading 320.00, for vectors to HRBEK Aircraft departing RWY 35 will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,650 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 349.53 for RWY 35 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 6.4NM to cross GARDI at or above 4,000 ft MSL (approx. 3,150 ft AGL), then on track 320.00, for vectors to HRBEK
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	Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to HRBEK, then as depicted The KBREW enroute transition was shortened from GEP VORTAC to begin at HRBEK. This allows a more straightforward direction for aircraft to proceed on course.
BUNYN RNAV SID North	Minneapolis-St Paul Intl/Wold-Chamberlain: The BUNYN RNAV SID is a new departure procedure that will provide air traffic control and aircraft a predictable path for northbound operations, while maintaining the current departure flow at the airport. Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must

	reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5.50NM to cross FSHAY at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 105.00 for vectors to JBUGG Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,6000 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5NM to cross PGPEN at or above 3,500 ft MSL (approx. 2,590 ft AGL), then on track 120.00, for vectors to JBUGG Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn right for approximately 6.6NM to cross BGAXE at or above 4,000 ft MSL (approx. 3,150 ft AGL), then on track 340.00, for vectors to JBUGG Aircraft departing RWY 35 will no longer be issued an assigned heading and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 349.53 for RWY 35 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 6.4NM to cross BGAXE at or above 4,000 ft MSL (approx. 3,110 ft AGL), then on track 340.00, for vectors to JBUGG Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . .
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	Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to JBUGG, then as depicted
NRTHN RNAV SID NE	Minneapolis-St Paul Intl/Wold-Chamberlain: The NRTHN RNAV SID is a new departure procedure that will replace the WLSTON Conventional SID to provide air traffic control and aircraft a predictable path for northeast bound operations, while maintaining the current departure flow at the airport. Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5.50NM to cross FSHAY at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 105.00 for vectors to SIEDL Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes:

	Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5NM to cross PGPEN at or above 3,500 ft MSL (approx. 2,590 ft AGL), then on track heading 120.00, for vectors to SIEDL Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,650 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn right for approximately 6.6NM to cross BGAXE at or above 4,000 ft MSL (approx. 3,150 ft AGL), then on track 340.00, for vectors to SIEDL Aircraft departing RWY 35 will no longer be issued an assigned heading and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 349.53 for RWY 35 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 6.4NM to cross BGAXE at or above 4,000 ft MSL (approx. 3,110 ft AGL), then on track 340.00, for vectors to SIEDL Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field:
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	RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to SIEDL, then as depicted One transition will follow the current WLSTON SID path and a new transition will have aircraft track farther northeast.
TOTTZ RNAV SID	Minneapolis-St Paul Intl/Wold-Chamberlain: The TOTTZ RNAV SID is a new departure procedure replacing the current ROCHESTER ONE Conventional SID. It will provide air traffic control and aircraft a predictable path for southeast bound operations enhancing safety and efficiency, while maintaining the current departure flow at the airport. Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 3.5 NM to cross OHHPE at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 120.00 for vectors to HTDSH Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 4.3NM to cross GRNBN at or above 3,500 ft MSL (approx. 2,540 ft AGL), then on track 150.00, for vectors to HTDSH

	Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn right for approximately 6.5NM to cross SPAMM at or above 3,500 ft MSL (approx. 2,650 ft AGL), then on track 260.00, for vectors to HTDSH Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to HTDSH, then as depicted The enroute transitions will initially follow the same path as the ROSCHESTER SID, then at FOOLS, three new enroute transitions have been added to help disperse traffic and provide a more direct route to destinations.

DUHCK RNAV SID SAT	The DUHCK RNAV SID is a new departure procedure to help air traffic control provide safe and efficient services to general aviation aircraft departures to the south and southwest from Anoka County/Blaine, St. Paul, Flying Cloud, and Minneapolis Airports. Minneapolis-St Paul Intl/Wold-Chamberlain: RWY 35: Climb RWY heading (349.53) or as assigned by ATC. Thence . . . RWY 04: Climb RWY heading (045.00) or as assigned by ATC. Thence . . . RWY 30L: Climb RWY heading (301.36) or as assigned by ATC. Thence... RWY 30R: Climb RWY heading (301.35) or as assigned by ATC. Thence... RWY 22: Climb RWY heading (225.02) or as assigned by ATC. Thence... RWY 12L: Climb RWY heading (121.33) or as assigned by ATC. Thence... RWY 12R: Climb RWY heading (121.34) or as assigned by ATC. Thence... RWY 17: Climb RWY heading (169.53) or as assigned by ATC. Thence . . . Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence . . . RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence . . . RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . All airports Expect radar vectors to GGREY,
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	The enroute transitions are a completely new path and will fall in between the two new enroute transitions of the SLAYR RNAV SID.
HTDSH RNAV SID 3017	Minneapolis-St Paul Intl/Wold-Chamberlain: THE HTDSH RNAV SID is a new departure procedure when Minneapolis is on a RWY 30 configuration, where arrivals will be coming in from the southeast, but are able to have deconflicted RWY 17 departures to the south and southeast. Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will continue on track for approximately 1NM to WP BLKDG, then turn right southwest bound heading 220 for approximately 3.7 NM to cross RUBRB at or above 3,500 ft MSL (approx. 2,750 ft AGL), then on track 215.00, for vectors to ITZME The enroute transitions will follow the same path as the TOTTZ RNAV SID.
SNOWZ RNAV SID	Minneapolis-St Paul Intl/Wold-Chamberlain: The SNOWZ RNAV SID is a new departure procedure replacing the current SLAYR, HSTIN RNAV SIDS, and ORSKY and SCHEP Conventional SIDS and combining them into one SID. It will provide air traffic control and aircraft a predictable path for southwest bound operations enhancing safety and efficiency, while maintaining the current departure flow at the airport. Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 3.5 NM to cross OHHPE at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 120.00 for vectors to MANCY Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes:

	Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will continue on track for approximately 1NM to BLKDG, then turn right southwest bound heading 220 for approximately 3.7 NM to cross RUBRB at or above 3,500 ft MSL (approx. 2,750 ft AGL), then on track 215.00, for vectors to MANCY Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 6.5NM to cross SPAMM at or above 3,500 ft MSL (approx. 2,630 ft AGL), then on track 260.00, for vectors to MANCY Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . .
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	Satellite Airports: . . . Expect radar vectors to MANCY, then as depicted The enroute transitions took elements of all four replaced SIDS and created two new enroute transitions. All aircraft will be flying in the vicinity of where they are currently flying.
BITEZ RNAV SID	Minneapolis-St Paul Intl/Wold-Chamberlain: The BITEZ RNAV SID is a new departure procedure replacing the current SMERF and LEINY RNAV SIDS, combining them into one SID. It will provide air traffic control and aircraft a predictable path for westbound operations enhancing safety and efficiency, while maintaining the current departure flow at the airport. Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5.50NM to cross FSHAY at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 105.00 for vectors to HHOBA Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes: Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 5 NM to cross ITCHZ at or above 4,000 ft MSL (approx. 3,100 ft AGL), then on track 300.00, for vectors to HHOBA Aircraft departing RWY 35 will no longer be issued an assigned heading and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes:

	Climb on heading 349.53 for RWY 35 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 6.4NM to cross ITCHZ at or above 4,000 ft MSL (approx. 3,110 ft AGL), then on track 300.00, for vectors to HHOBA Anoka County/Blaine (Janes Field): RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . . RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . . RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . . RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . . Flying Cloud: RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence... RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to HHOBA, then as depicted The SID has two new enroute transitions. The north transition is a near direct overlay of the current SMERF enroute transition, but ZOGAP was moved farther NW. The south transition will replace the LEINY SID transition and was moved approximately 4 NM north of its current position.
ZMBRO RNAV SID	Minneapolis-St Paul Intl/Wold-Chamberlain: The ZMBRO RNAV SID is a new departure procedure replacing the current ZMBRO Conventional SID. It will provide air traffic control and aircraft a predictable path for southwest bound operations enhancing safety and efficiency, while maintaining the current departure flow at the airport.

Aircraft departing RWY 12L and 12R will no longer be issued a heading between 060° and 100° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes:

Climb on heading 121.33 for RWY 12L and 121.34 for RWY 12R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 3.5 NM to cross OHHPE at or above 3,500 ft MSL (approx. 2,600 ft AGL), then will track heading 120.00 for vectors to JEDET

Aircraft departing RWY 17 will no longer be issued a heading between 230° and 285° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes:

Climb on heading 169.53 and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 4.6NM to cross SOTTA at or above 3,500 ft MSL (approx. 2,560 ft AGL), then on track 135.00, for vectors to JEDET

Aircraft departing RWY 30L and 30R will no longer be issued a heading between 220° and 360° and cross a point approximately 7 miles from the airport at or above 3,500 ft MSL (approx. 2,600 ft AGL), then assigned enroute transition or ATC vectors. Aircraft will now depart via the following routes:

Climb on heading 301.36 for RWY 30L and 301.35 for RWY 30R and must reach 500 ft above the airport within 1NM of the departure end of the runway. Once above 500 ft, the aircraft will turn left for approximately 6.5NM to cross SPAMM at or above 3,500 ft MSL (approx. 2,630 ft AGL), then on track 260.00, for vectors to JEDET

Anoka County/Blaine (Janes Field):

RWY 09: Climb RWY heading (088.70) or as assigned by ATC. Thence . . .
RWY 36: Climb RWY heading (358.68) or as assigned by ATC. Thence . . .
RWY 27: Climb RWY heading (268.71) or as assigned by ATC. Thence . . .
RWY 18: Climb RWY heading (178.68) or as assigned by ATC. Thence . . .

Flying Cloud:

RWY 10R: Climb RWY heading (098.01) or as assigned by ATC. Thence...

	RWY 36: Climb RWY heading (003.01) or as assigned by ATC. Thence... RWY 28R: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 28L: Climb RWY heading (278.02) or as assigned by ATC. Thence... RWY 18: Climb RWY heading (183.01) or as assigned by ATC. Thence... RWY 10L: Climb RWY heading (098.01) or as assigned by ATC. Thence... St Paul Downtown Holman Field: RWY 13: Climb RWY heading (127.74) or as assigned by ATC. Thence . . . RWY 32: Climb RWY heading (326.04) or as assigned by ATC. Thence . . . RWY 14: Climb RWY heading (146.03) or as assigned by ATC. Thence . . . RWY 31: Climb RWY heading (307.75) or as assigned by ATC. Thence . . . RWY 09: Climb RWY heading (090.66) or as assigned by ATC. Thence . . . RWY 27: climb RWY heading (270.67) or as assigned by ATC. Thence . . . Satellite Airports: . . . Expect radar vectors to JEDET, then as depicted The enroute transition is the same overlay until ZMBRO, then will shift slightly southeast bound off its original course, and will continue farther southeast bound, instead of ending at PEKTE/ODI.
BAINY RNAV STAR	The BAINY STAR into Minneapolis St. Paul Airport has been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have not changed, but waypoints, altitudes and speeds were adjusted to better optimize aircraft descent to help provide better service to the community. BAINY Waypoint altitude 15000BFL190 changed to AT OR ABOVE 15000 IRRRV Waypoint Removed JJENI Waypoint Removed LEDRZ_ Waypoint added AT 8000 AT 210K LEDRZ_ Waypoint moved 1.71NM GWAIT Waypoint Removed HRBIE Waypoint added AT 7000 AT 210K OGLVE_ Waypoint moved .94NM Aircraft will enter from the north and cross BAINY at or above 15,000 ft

	MSL (approx. 13,880 ft AGL) and at 280 KIAS on track southeast heading 159.41 for 10.84 NM to cross LUCCY at or above 11,000 ft MSL (approx. 10,010 ft AGL) and at 280 KIAS, then on track southeast heading 159.10 for 15.16 NM to SAUGR. Aircraft landing RWY 22, 4, 17, 30R: from SAUGR will fly on track southeast heading 159.35 for 13.00 NM to cross GEP VORTAC at or above 10,000 ft MSL (approx. 9,120 ft AGL) and at 250 KIAS, then on track southeast heading 156.06 for 6.13 NM to cross PRRPL at or above 9,000 ft MSL (approx. 8,160 ft AGL), then on track southeast heading 121.22 for 10.22 NM to cross OSMOH at 8,000 ft MSL (approx. 7,140 ft AGL) and at 210 KIAS, then on track southeast heading 121.93 and to expect radar vectors to final approach course. Aircraft landing RWY 12L/R: from SAUGR will fly on track southbound heading 181.03 for 2.01 NM to cross OGLVE at or above 8,000 ft MSL (approx. 7,060 ft AGL), then on track southbound heading 181.19 for 8.10 NM to cross KAYQU at 7,000 ft MSL (approx. 6,060 ft AGL) and at 210 KIAS to expect radar vectors to final approach course. Aircraft landing RWY 30L: from SAUGR on track southeast heading 159.35 for 13.00 NM to cross GEP VORTAC at or above 10,000 ft MSL (approx. 9,120 ft AGL) and at 250 KIAS, then on track southeast heading 156.06 for 6.13 NM to cross PRRPL at or above 9,000 ft MSL (approx. 8,160 ft AGL), then on track southeast heading 172.44 for 16.38 NM to cross MAUER at 8,000 ft MSL (approx. 7,010 ft AGL) and at 210 KIAS, then on track southeast heading 121.45 for 3.00 NM to cross LEDRZ at 8,000 ft MSL (approx. 6,970 ft AGL) and at 210 KIAS, then on track southeast heading 121.03 to expect radar vectors to final approach course. Aircraft landing RWY 35: from SAUGR on track southeast heading 159.35 for 13.00 NM to cross GEP VORTAC at or above 10,000 ft MSL (approx. 9,120 ft AGL) and at 250 KIAS, then on track southeast heading 156.06 for 6.13 NM to cross PRRPL at or above 9,000 ft MSL (approx. 8,160 ft AGL), then on track south heading 180.29 for 14.87 NM to cross BRNVL at 8,000 ft MSL (approx. 7,180 ft AGL) and at 210 KIAS, then on track south heading 178.56/3.32 to cross LISEL at 8,000 ft MSL (approx. 7,200 ft AGL) and at 210 KIAS, then on track south heading 176.04 to expect radar vectors to final approach course.
BLUEM RNAV STAR	The BLUEM STAR into Minneapolis St. Paul Airport has been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have not changed, but waypoints, altitudes and speeds were adjusted to better optimize aircraft descent to help provide better service to the community.

BLUEM RNAV STAR	BLUEM Waypoint altitude AT OR ABOVE 11000 changed to AT OR ABOVE 10000 COZZZ Waypoint Removed DOLEE Waypoint Removed TIETN_ Waypoint added AT 8000 AT 230K FSCOT_ Waypoint added AT 8000 AT 230K CMMOE_ Waypoint moved .20NM JAMEZ added speed restriction AT 210K NOFLD Waypoint changed AT 10000 to altitude 8000B9000 HHAMR added speed restriction AT 280K Aircraft will enter from the south and cross BLUEM at or above 10,000 ft MSL (approx. 8,870 ft AGL) and at 280 KIAS on track northbound heading 003.76 for 6.19 NM to cross HHAMR at or above 10,000 ft MSL (approx. 8,800 ft AGL) and at 280 KIAS, then on track northbound heading 003.23/5.42 to FARBO. Aircraft landing RWY 22, 12R, 4, 17: from FARBO will fly on track north heading 359.99 for 13.24 NM to cross ELLKO at or above 10,000 ft MSL (approx. 9,050 ft AGL) and at 250 KIAS, then track north heading 354.90 for 5.82 NM to cross SAVVG at 9,000 ft MSL (approx. 7,980 ft AGL), then on track northwest heading 328.34 for 8.02 NM to cross GREAK at 8,000 ft MSL (approx. 7,180 ft AGL) and at 230 KIAS, then on track northwest heading 301.32 for 2.25 NM to cross TIETN at 8,000 ft MSL (approx. 7,140 ft AGL) and at 230 KIAS, then on track northwest heading 301.12 to expect radar vectors to final approach course. Aircraft landing RWY 30L/R: from FARBO on track northeast heading 012.96 for 3.49 NM to cross NOFLD between 8,000 ft MSL (approx. 7,030 ft AGL) and 9,000 ft MSL (approx. 8,030 ft AGL) and at 250 KIAS, then on track northeast heading 035.48 for 12.92 NM to cross CANDD at 7,000 ft MSL (approx. 6,050 ft AGL) and at 230 KIAS, then on track northeast heading 035.87 for 1.63 NM to cross HAPTN at 7,000 ft MSL (approx. 6,010 ft AGL) and at 210 KIAS to expect radar vectors to final approach course. Aircraft landing RWY 12L: from FARBO will fly on track northbound heading 359.99 for 13.24 NM to cross ELLKO at or above 10,000 ft MSL (approx. 9,050 ft AGL) and at 250 KIAS, then on track northwest heading 354.90 for 5.82 NM to cross SAVVG at 9,000 ft MSL (approx. 7,980 ft AGL), then on track northeast heading 017.18 for 16.92 NM to cross CMMOE at 8,000 ft MSL (approx. 7,130 ft AGL) and at 230 KIAS, then on track northwest heading 300.77 for 2.47 NM to cross FSCOT at 8,000 ft MSL (approx. 7,050 ft AGL) and at 230 KIAS, then on track northwest heading 301.29 to expect radar vectors to final approach course.
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	Aircraft landing RWY 35: from FARBO on track north heading 013.33 for 2.21 NM to cross DNDIS at 9,000 ft MSL (approx. 7,970 ft AGL) and at 230 KIAS, then on track north heading 013.34 for 8.00 NM to cross JAMEZ at or above 7,000 ft MSL (approx. 6,050 ft AGL) and at 210 KIAS to expect radar vectors to final approach course for RNP, GPS, or ILS RWY 35 approaches.
KKILR RNAV STAR	The KKILR STAR into Minneapolis St. Paul Airport has been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have not changed, but waypoints, altitudes and speeds were adjusted to better optimize aircraft descent to help provide better service to the community. COZZZ Waypoint Removed DOLEE Waypoint Removed TIETN_ Waypoint added AT 8000 AT 230K FSCOT_ Waypoint added AT 8000 AT 230K CMMOE_ Waypoint moved .20NM HUGGI Waypoint added speed restriction AT or BELOW 280K Aircraft will enter from the east and cross KKILR at or above 12,000 ft MSL (approx. 10,990 ft AGL) and at 280 KIAS on track west heading 274.96 for 5.88 NM to cross HUGGI at or above 10,000 ft MSL (approx. 8,730 ft AGL), then on track west heading 273.98 for 7.01 NM to KRISP. Aircraft landing RWY 22, 12L, 4, 17: from KRISP on track west heading 268.90 for 13.24 NM to cross AFTYN at or above 10,000 ft MSL (approx. 9,010 ft AGL) and at 250 KIAS, then on track northwest heading 294.10 for 14.24 NM to cross CMMOE at 8,000 ft MSL (approx. 7,130 ft AGL) and at 230 KIAS, then on track northwest heading 300.77 for 2.47 NM to cross FSCOT at 8,000 ft MSL (approx. 7,050 ft AGL) and at 230 KIAS, then on track 301.29 to expect radar vectors to final approach course. Aircraft landing RWY 12R, 35: from KRISP on track west heading 268.90 for 13.24 NM to cross AFTYN at or above 10,000 ft MSL (approx. 9,050 ft AGL) and at 250 KIAS, then on track west heading 261.28 for 9.20 NM to cross JONZY at or above 9,000 ft MSL (approx. 8,310 ft AGL), then on track west heading 260.85 for 13.33 NM to cross GREAK at 8,000 ft MSL (approx. 7,180 ft AGL) and at 230 KIAS, then on track northwest heading 301.32 for 2.25 NM to cross TIETN at 8,000 ft MSL (approx. 7,160 ft AGL) and at 230 KIAS, then on track 300.82 to expect radar vectors to final approach course. Aircraft landing RWY 30L/R: from KRISP on track southwest heading 242.85 for 7.35 NM to cross STUWE at 7,000 ft MSL (approx. 6,060 ft

	AGL), then on track southwest heading 242.75 for 5.55 NM to cross GEEQU at 7,000 ft MSL (approx. 6,060 ft AGL) and at 210 KIAS to expect radar vectors to final approach course.
MUSCL RNAV STAR	The MUSCL STAR into Minneapolis St. Paul Airport have been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have not changed, but waypoints, altitudes and speeds were adjusted to better optimize aircraft descent to help provide better service to the community. COZZZ Waypoint Removed DOLEE Waypoint Removed TIETN_ Waypoint added AT 8000 AT 230K FSCOT_ Waypoint added AT 8000 AT 230K CMMOE_ Waypoint moved .20NM Aircraft will enter from the east and cross MUSCL at or above 17,000 ft MSL (approx. 15,950 ft AGL) and at 280 KIAS on track west heading 275.97 for 18.73 NM to cross BAYKS at or above 12,000 ft MSL (approx. 10,810 ft AGL) and at 280 KIAS, then on track west heading 257.61 for 15.61 NM to WOLVS. Aircraft landing RWY 22, 12L, 4, 17: from WOLVS on track west heading 257.38 for 6.03 NM to cross LOOON at or above 11,000 ft MSL (approx. 10,120 ft AGL), then on track west heading 257.23 for 9.97 NM to cross WDBRY at or above 10,000 ft MSL (approx. 8,980 ft AGL) and at 250 KIAS, then on track 257.19/4.00 to cross ZASKY at or above 9,000 ft MSL (approx. 8,300 ft AGL), then on track northwest heading 301.35 for 3.55 NM to cross CMMOE at 8,000 ft MSL (approx. 7,130 ft AGL) and at 230 KIAS, then on track northwest heading 300.77 for 2.47 NM to cross FSCOT at 8,000 ft MSL (approx. 7,050 ft AGL) and at 230 KIAS, then on track northwest heading 301.29 to expect radar vectors to final approach course. Aircraft landing RWY 12R, 35: from WOLVS on track west heading 257.38 for 6.03 NM to cross LOOON at or above 11,000 ft MSL (approx. 10,120 ft AGL), then on track west heading 257.23 for 9.97 NM to cross WDBRY at or above 10,000 ft MSL (approx. 8,980 ft AGL) and at 250 KIAS, then on track west heading 257.19 for 4.00 NM to cross ZASKY at or above 9,000 ft MSL, (approx. 8,300 ft AGL) then on track southwest heading 238.64 for 14.36 NM to cross GREAK at 8,000 ft MSL (approx. 7,180 ft AGL) and at 230 KIAS, then on track northwest 301.32 for 2.25 NM to cross TIETN at 8,000 ft MSL (approx. 7,160 ft AGL) and at 230 KIAS, then on track northwest heading 300.82 to expect radar vectors to final approach course. Aircraft landing RWY 30L/R: from WOLVS on track southwest heading 224.21 for 3.07 NM to cross LKLND at or above 8,000 ft MSL (approx.

	7050 ft AGL), then on track southwest heading 224.22 for 6.48 NM to cross KROIX at 7,000 ft MSL (approx. 6,090 ft AGL) and at 230 KIAS, then on track southwest heading 224.14 for 2.00 NM to cross TRTEL at 7,000 ft MSL (approx. 6,260 ft AGL) and at 210 KIAS to expect radar vectors to final approach course.
NITZR RNAV STAR	The NITZR STAR into Minneapolis St. Paul Airport has been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have not changed, but waypoints, altitudes and speeds were adjusted to better optimize aircraft descent to help provide better service to the community. COZZZ Waypoint Removed DOLEE Waypoint Removed TIETN_ Waypoint added AT 8000 AT 230K FSCOT_ Waypoint added AT 8000 AT 230K CMMOE_ Waypoint moved .20NM WRS AW_ Waypoint moved 2.25NM WRS AW_ added speed restriction 280K AANA H_ Waypoint moved 2.26NM AANA H_ altitude changed from AT 10000 to AT OR ABOVE 9000 and removed speed restriction WBSTR_ altitude changed from AT OR ABOVE 9000 to AT 8000 and added speed restriction 280K SHILD altitude changed from AT 9000 to AT OR ABOVE 9000 and speed restriction removed NITZR changed altitude from AT OR ABOVE 12000 to AT OR ABOVE 11000 NNEWW Speed restriction add AT 210K Aircraft will enter from the south and cross NITZR at or above 11,000 ft MSL (approx. 9,860 ft AGL) and at 280 KIAS on track northeast heading 021.65 for 6.25 NM to cross WRS AW at or above 11,000 ft MSL (approx. 9,930 ft AGL) and at 280 KIAS, then on track northeast heading 021.84 for 5.28 NM to DAHRL. Aircraft landing RWY 22, 12R, 4, 17: from DAHRL on track northeast 026.16 for 9.80 NM to GDNEE, then on track northeast heading 026.71 for 5.63 NM to cross ELLKO at or above 11,000 ft MSL (approx. 10,050 ft AGL) and at 250 KIAS, then on track north heading 354.90 for 5.82 NM to cross SAVVG at 10,000 ft MSL (approx. 8,980 ft AGL), then on track northwest heading 328.34 for 8.02 NM to cross GREAK at 8,000 ft MSL (approx. 7,180 ft AGL) and at 230 KIAS, then on track northwest heading 301.32/2.25 to cross TIETN at 8,000 ft MSL (approx. 7,140 ft AGL) and at 230 KIAS, then on track northwest heading 300.82 to expect radar vectors to final approach course.

	Aircraft landing RWY 30L/R: from DAHRL on track northeast heading 026.93 for 2.00 NM to cross AANAH at or above 9,000 ft MSL (approx. 7,940 ft AGL), then on track northeast heading 027.30 for 5.49 NM to cross WBSTR at 8,000 ft MSL (approx. 6,990 ft AGL) and at 250 KIAS, then on track northeast heading 056.15 for 14.10 NM to cross CANDD at 7,000 ft MSL (approx. 6,050 ft AGL) and at 230 KIAS, then on track northeast heading 035.87 for 1.63 NM to cross HAPTN at 7,000 ft MSL (approx. 6,010 ft AGL) and at 210 KIAS to expect radar vectors to final approach course for RNP, GPS, or ILS RWY 30L/R. Aircraft landing RWY 12L: from DAHRL on track northeast heading 026.16 for 9.80 NM to GDNEE, then on track northeast heading 026.71 for 5.63 NM to cross ELLKO at or above 11,000 ft MSL (approx. 10,050 ft AGL) and at 250 KIAS, then on track north heading 354.90 for 5.82 NM to cross SAVVG at 10,000 ft MSL (approx. 8,980 ft AGL), then on track northeast heading 017.18 for 16.92 NM to cross CMMOE at 8,000 ft MSL (approx. 7,130 ft AGL) and at 230 KIAS, then on track northwest heading 300.77 for 2.47 NM to cross FSCOT at 8,000 ft MSL (approx. 7,050 ft AGL) and at 230 KIAS, then on track 301.29 to expect radar vectors to final approach course. Aircraft landing RWY 35: from DAHRL on track northeast heading 025.46 for 2.00 NM to cross SHILD at or above 9,000 ft MSL (approx. 7,930 ft AGL), then on track northeast heading 026.35 for 7.80 NM to GDNEE, then on track northeast 022.86 for 1.50 NM to cross NNEWW at 7,000 ft MSL (approx. 5,980 ft AGL) to expect radar vectors to final approach course for RNP, GPS, or ILS RWY 35.
TORGY RNAV STAR	The TORGY STAR into Minneapolis St. Paul Airport has been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have minimal changes to better optimize aircraft descent to help provide better service to the community. IRRRV Waypoint Removed JJENI Waypoint Removed LEDRZ_ Waypoint added AT 8000 AT 210K GWAIT Waypoint Removed LISEL Waypoint added AT 8000 AT 210K LEDRZ Waypoint added AT 8000 AT 210K OFSON Waypoint added AT 280K Speed Restriction HMBRG Waypoint added AT OR ABOVE 10000 and AT or below 280K Aircraft will enter from the west and cross TORGY at or above 13,000 ft MSL (approx. 11,960 ft AGL) on track east heading 072.46 for 6.01 NM to

	cross OFSON at or above 11,000 ft MSL (approx. 9,980 ft AGL), then on track east heading 072.44 for 5.47 NM to HMBRG at or above 10,000 ft MSL (approx. 8,990 ft AGL), then on track 072.50 for 10.38 NM to CONIA. Aircraft landing RWY 22, 4, 17, 30L: from CONIA on track east heading 072.56 for 7.24 NM to cross JAEDN at or above 10,000 ft MSL (approx. 9,040 ft AGL) and at 250 KIAS, then on track east heading 072.69 for 13.21 NM to cross HDEEE at or above 9,000 ft MSL (approx. 8,120 ft AGL), then on track southeast heading 121.31 for 8.34 NM to cross MAUER at 8,000 ft MSL (approx. 7,080 ft AGL) and at 210 KIAS, then on track southeast heading 121.45 for 3.00 NM to cross LEDRZ at 8,000 ft MSL (approx. 6,990 ft AGL) and at 210 KIAS, then on track southeast heading 121.03. to expect radar vectors to final approach course. Aircraft landing RWY 12L/R: from CONIA on track northeast heading 041.88 for 11.75 NM to cross SPUKI at 7,000 ft MSL (approx. 5,990 ft AGL) and at 230 KIAS, then on track northeast heading 042.01 for 2.00 NM to cross KRUGG at 7,000 ft MSL (6,010 ft AGL) and at 210 KIAS to expect radar vectors to final approach course. Aircraft landing RWY 30R: from CONIA on track 072.56 for 7.24 NM to cross JAEDN at or above 10,000 ft MSL (approx. 9,040 ft AGL) and at 250 KIAS, then on track 072.69 for 13.21 NM to cross HDEEE at or above 9,000 ft MSL (approx. 8,120 ft AGL), then on track 058.82 for 14.40 NM to cross WILKN at 8,000 ft MSL (approx. 7,120 ft AGL) and at 210 KIAS, then on track southeast heading 121.60 for 1.61 NM to cross OSMOH at 8,000 ft MSL (approx. 7,140 ft AGL) and at 210 KIAS, then on track southeast heading 121.93 to expect radar vectors to final approach course. Aircraft landing RWY 35: from CONIA will fly on track east heading 072.56 for 7.24 NM to cross JAEDN at or above 10,000 ft MSL (approx. 9,040 ft AGL) and at 250 KIAS, then on track east heading 072.69 for 13.21 NM to cross HDEEE at or above 9,000 ft MSL (approx. 8,120 ft AGL), then on track southeast heading 121.24 for 5.72 NM to cross BRNVL at 8,000 ft MSL (approx. 7,180 ft AGL) and at 210 KIAS, then on track south heading 178.56 for 3.32 NM to cross HRBIE at 7,000 ft MSL (approx. 6,180 ft AGL) and at 210 KIAS, then on track south heading 176.04 to expect vectors to final approach course.
RNAV (RNP) (GPS) and ILS RWY 12L	The RNP, GPS, and ILS approaches into Minneapolis St. Paul Airport have been updated to meet FAA, safety, and efficiency requirements to better meet the needs of air traffic control and the airlines. The current flight tracks have not changed, but waypoints, altitudes and speeds were adjusted to better optimize aircraft descent to help provide better service to the community.

	The changes and flight paths are as follows: WASHY WP moved 2.19 ft from N 44° 57' 0.96" / W 93° 21' 13.54" to N 44° 57' 0.97" / W 93° 21' 13.51". FSCOT WP moved 3.20NM southeast from N 45° 0' 35.38" / W 93° 12' 57.68" to N 44° 58' 55.65" / W 93° 9' 6.94" with altitude of at 8,000 ft MSL and less than 230 KIAS. CMMOE WP removed. INGLS WP added speed restriction less than 210 KIAS. CCJAY WP added speed restriction less than 210 KIAS. ALGIN WP added speed restriction less than 210 KIAS. (RNP only): Aircraft would enter the procedure from the east at FSCOT IF at 8,000 ft MSL (approx. 7,050 ft AGL) and would proceed northwest through INGLS WP at or above 6,000 ft MSL (approx. 5,150 ft AGL), then left turn to GLDON WP at or above 4,400 ft MSL (approx. 3,490 ft AGL), then continue left turn to WASHY PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL), then continue onto RWY 12L. (RNP, GPS): Aircraft would enter the procedure from the north at KAYQU IAF at 7,000 ft MSL (approx. 6,050 ft AGL) and would proceed south to SHUUT WP at or above 5,000 ft MSL (approx. 3,990 ft AGL), then turn southeast to HAMML WP at or above 4,000 ft MSL (approx. 3,100 ft AGL), then on track to WASHY PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL) then continue to RWY 12L. (RNP, GPS, ILS): Aircraft would enter the procedure from the northwest at CCJAY IAF at or above 7,000 ft MSL (approx. 6,030 ft AGL) and would proceed southeast through UBTYA WP at or above 6,000 ft MSL (approx. 4,990 ft AGL), then through ALGIN WP at or above 5,000 ft MSL (approx. 4,010 ft AGL), then through WASHY PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL) then continue to RWY 12L.
RNAV (RNP), (GPS), ILS RWY 12R	GREAK WP Removed TIETN WP moved 3.55NM southeast from N 44° 51' 19.07" / W 93° 26' 3.53" to N 44° 49' 29.62" / W 93° 21' 46.79" and altitude at 8,000 ft MSL added. PAETN Waypoint added speed restriction less than 210 KIAS.

	ZESTY Waypoint added speed restriction less than 210 KIAS. (RNP): Aircraft entering from the southeast would enter the procedure at TIETN IAF at 8,000 ft MSL (approx. 7,150 ft AGL) and would proceed northwest to EEDDN WP at or above 7,000 ft MSL (approx. 3,130 ft AGL), then turn right through KRLSN WP at or above 4,400 ft MSL (approx. 3,420 ft AGL), then continue right turn to ZESTY WP at or above 4,000 ft MSL (approx. 3,070 ft AGL) then, then track southeast to KINNS PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL) then continue to RWY 12R. (RNP): Aircraft entering from the southwest would enter the procedure at the KRUGG IAF at 7,000 ft MSL (approx. 6,010 ft AGL) and would proceed northeast to EFEXX WP at or above 6,000 ft MSL (4,960 ft AGL) then turn east to KRLSN WP at or above 4,400 ft MSL (approx. 3,420 ft AGL), then turn right to ZESTY WP at or above 4,000 ft MSL (approx. 3,070 ft AGL) then, then track southeast to KINNS PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL) MSL then continue to RWY 12R. (GPS): Aircraft entering from the southwest would enter the procedure at the KRUGG IAF at 7,000 ft MSL (approx. 6,010 ft AGL) and would proceed northeast to EFEXX WP at or above 6,000 ft MSL (4,960 ft AGL) then turn east to ZESTY WP at or above 4,000 ft MSL (approx. 3,070 ft AGL) then, then track southeast to KINNS PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL) MSL then continue to RWY 12R. (RNP, GPS, ILS): Aircraft entering from the northwest would enter the procedure at the PATEN IAF at or above 7,000 ft MSL (approx. 5,980 ft AGL) and would proceed southeast through UTHNK WP at or above 6,000 ft MSL (approx. 5,020 ft AGL) then continue southeast through WAYZA at or above 5,000 ft MSL (approx. 4,020 ft AGL), then continue through ZESTY WP at or above 4,000 ft MSL (approx. 3,070 ft AGL) then, then track southeast to KINNS PFAF at or above 3,000 ft MSL (approx. 2,080 ft AGL) then continue to RWY 12R.
RNAV (RNP) RWY 30L	MAUER WP removed LEDRZ WP moved 1.71NM northwest from N 44° 44' 27.58" / W 93° 10' 12.34" to N 44° 45' 20.11" / W 93° 12' 15.69" and new altitude at 8,000 ft MSL. NARCO WP moved 0.065 ft from N 44° 48', 55.48" / W 93°, 4' 2.63" to N 44° 48', 55.48" / W 93°, 4' 2.63" (RNP): Aircraft entering from the northwest would enter the procedure at LEDRZ IAF at 8,000 ft MSL (approx. 6,990 ft AGL) and would proceed southeast to TONEE WP at or above 7,000 ft MSL (approx. 6,060 ft AGL),

RNAV (RNP), (GPS) and ILS RWY 30L	then turn left to BBUCK at or above 4,400 ft MSL (approx. 3,710 ft AGL), then continue left turn to AABEZ WP at or above 4,000 ft MSL (approx. 3,310 ft AGL) then, proceed northwest to NARCO PFAF at or above 3,000 ft MSL (approx. 2,220 ft AGL), then continue to RWY 30L. (RNP): Aircraft entering from the southwest would enter the procedure at the HAPTN IAF at 7,000 ft MSL (approx. 6,000 ft AGL) and would proceed northeast to DBLEM WP at or above 6,000 ft MSL (5,170 ft AGL) then turn northwest to BBUCK at above 4,400 ft MSL (approx. 3,710 ft AGL), then continue left turn to AABEZ WP at or above 4,000 ft MSL (approx. 3,310 ft AGL) then, proceed northwest to NARCO PFAF at or above 3,000 ft MSL (approx. 2,220 ft AGL), then continue to RWY 30L. (GPS): Aircraft entering from the southwest would enter the procedure at the HAPTN IAF at 7,000 ft MSL (approx. 6,000 ft AGL) and would proceed northeast to DBLEM WP at or above 6,000 ft MSL (5,170 ft AGL) then continue left turn northwest to AABEZ WP at or above 4,000 ft MSL (approx. 3,310 ft AGL) then, proceed northwest to NARCO PFAF at or above 3,000 ft MSL (approx. 2,220 ft AGL), then continue to RWY 30L. (RNP, GPS): Aircraft entering from the east would enter the procedure at the GEEQU IAF at 7,000 ft MSL (approx. 6,060 ft AGL) and would proceed southwest to PIGZI WP at or above 5,000 ft MSL (approx. 4,310 ft AGL) then turn northwest to AABEZ WP at or above 4,000 ft MSL (approx. 3,310 ft AGL) then, proceed northwest to NARCO PFAF at or above 3,000 ft MSL (approx. 2,220 ft AGL), then continue to RWY 30L. (RNP, GPS, ILS): Aircraft entering from the southeast would enter the procedure at the HASTI IAF at or above 7,000 ft MSL (approx. 6,170 ft AGL) and would proceed northwest through PINKE WP at or above 6,000 ft MSL (5,140 ft AGL) and through PIGZI WP at or above 5,000 ft MSL (approx. 4,310 ft AGL) then continue on track to AABEZ WP at or above 4,000 ft MSL (approx. 3,310 ft AGL) then, proceed northwest to NARCO PFAF at or above 3,000 ft MSL (approx. 2,220 ft AGL), then continue to RWY 30L.
RNAV (RNP), (GPS), ILS RWY 30R	(RNP): Aircraft entering from the northwest would enter the procedure at OSMOH IF at 8,000 ft MSL (approx. 7,150 ft AGL) and would proceed southeast to HIGHA WP at or above 6,000 ft MSL (approx. 5,010 ft AGL), then turn right through COTTG WP at or above 4,500 ft MSL (approx. 3,580 ft AGL), then continue right turn through RVERR WP at or above 3,500 ft MSL (approx. 2,590 ft AGL) then continue right turn to JACKO PFAF at or above 3,000 ft MSL (approx. 2,050 ft AGL), then continue to RWY 30R.

RNAV (RNP) RWY 30R	(RNP, GPS): Aircraft entering from the northeast would enter the procedure at the TRTEL IAF at 7,000 ft MSL (approx. 6,190 ft AGL) and would proceed southwest to SOGGY WP at or above 5,000 ft MSL (4,030 ft AGL) then turn west to SAMMZ PFAF at or above 4,000 ft MSL (approx. 3,300 ft AGL) then turn northwest JACKO PFAF at or above 3,000 ft MSL (approx. 2,050 ft AGL), then continue to RWY 30R. (RNP, GPS): Aircraft entering from the east would enter the procedure at the GEEQU IAF at 7,000 ft MSL (approx. 6,070 ft AGL) and would turn west to SAMMZ WP at or above 4,000 ft MSL (approx. 3,300 ft AGL) then turn northwest JACKO PFAF at or above 3,000 ft MSL (approx. 2,050 ft AGL), then continue to RWY 30R. (RNP, GPS, ILS): Aircraft entering from the southeast would enter the procedure at the GROVZ IAF at 7,000 ft MSL (approx. 6,160 ft AGL) and would proceed northwest through WULAM WP at or above 6,000 ft MSL (5,200 ft AGL), Then continue through BONNA WP at or above 5,000 ft MSL (approx. 4,300 ft AGL) then continue through SAMMZ WP at or above 4,000 ft MSL (approx. 3,300 ft AGL) then turn northwest JACKO PFAF at or above 3,000 ft MSL (approx. 2,050 ft AGL), then continue to RWY 30R.
RNAV (RNP), (GPS), and ILS RWY 35	(RNP): Aircraft entering from the north would enter the procedure at HRBIE IF at 8,000 ft MSL (approx. 7,190 ft AGL) and would proceed south to HANRA WP at or above 6,000 ft MSL (approx. 5,020 ft AGL), then left turn through CHRMR WP at or above 4,300 ft MSL (approx. 3,330 ft AGL), then continue left turn to ROZEE WP at or above 4,000 ft MSL (approx. 3,060 ft AGL) then continue northwest to LORAH PFAF at or above 3,000 ft MSL (approx. 1,970 ft AGL) then continue to RWY 35. (RNP): Aircraft entering from the southeast would enter the procedure at the NNEWW at 7,000 ft MSL (approx. 5,970 ft AGL) and would proceed northeast through BUHZZ WP at or above 5,500 ft MSL (4,370 ft AGL) then continue through CHRMR WP at or above 4,300 ft MSL (approx. 3,330 ft AGL), then left turn to ROZEE WP at or above 4,000 ft MSL (approx. 3,060 ft AGL) then continue northwest to LORAH PFAF at or above 3,000 ft MSL (approx. 1,970 ft AGL), then continue to RWY 35. (GPS): Aircraft entering from the southeast would enter the procedure at the NNEWW at 7,000 ft MSL (approx. 5,970 ft AGL) and would proceed northeast through BUHZZ WP at or above 5,500 ft MSL (4,370 ft AGL), then left turn to ROZEE WP at or above 4,000 ft MSL (approx. 3,060 ft AGL) then continue northwest to LORAH PFAF at or above 3,000 ft MSL (approx. 1,970 ft AGL), then continue to RWY 35. (RNP, GPS, ILS): Aircraft entering from the south would enter the

	procedure at the JAMEZ IAF at or above 7,000 ft MSL (approx. 6,050 ft AGL) and would proceed northwest through OBERR WP at or above 6,000 ft MSL (5,010 ft AGL) then continue through SSTAR WP at or above 5,000 ft MSL (approx. 4,090 ft AGL) then continue to ROZEE WP at or above 4,000 ft MSL (approx. 3,060ft AGL) then continue northwest to LORAH PFPAF at or above 3,000 ft MSL (approx. 1,970 ft AGL), then continue to RWY 35.
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Appendix C

Consultation



U.S. Department
of Transportation

Federal Aviation
Administration

October 31, 2024

Ms. Amy Spong
Division Director & Deputy State Historic Preservation Officer
Minnesota Department of Administration
50 Sherburne Avenue, Suite 203
St. Paul, MN 55155
Via E-Mail: ENReviewSHPO@state.mn.us

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis-St. Paul International Airport

Dear Ms. Spong,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

The FAA is modernizing the National Airspace System nationwide by discontinuing outdated ground-based navigational equipment and implementing Global Positioning System (GPS)-Based procedures to enhance the safety and efficiency of airport operations. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures (implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-

contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as "the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking." 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the existing flight tracks of aircraft flying the current procedures (Existing Radar Tracks) to the proposed procedures (Expected Path Area). The comparison is depicted in the attached procedure boards. The proposed procedures were developed to mimic the current procedures and aircraft are expected to remain at approximately the same altitudes with the proposed procedure. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of ***no historic properties affected***, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

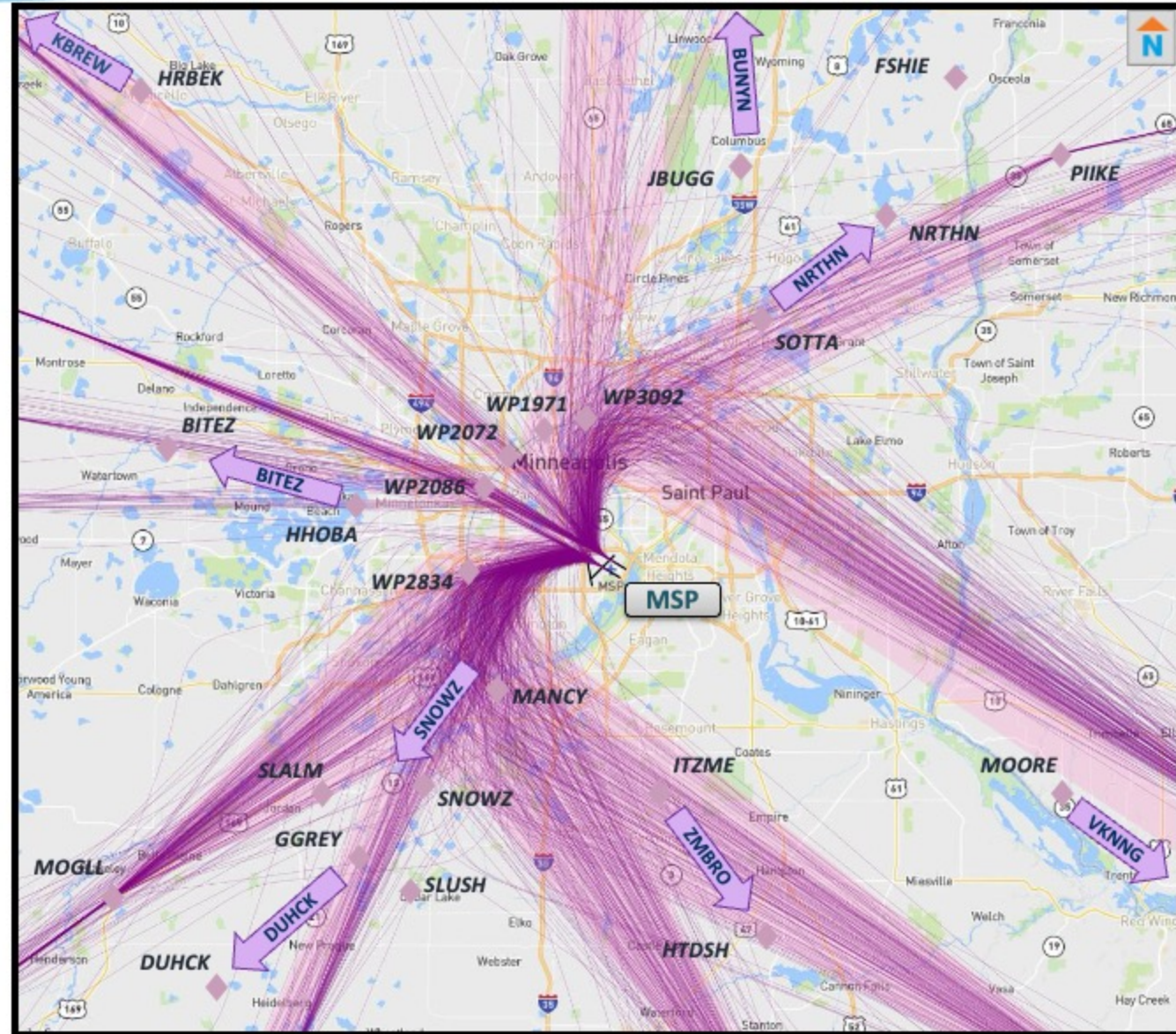
Sincerely,

**VONNIE L
GILES**

 Digitally signed by VONNIE
L GILES
Date: 2024.11.01 10:37:03
-05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2

Procedure Board Overview



NRTN → **Procedure** – All procedures use a five-letter designation. This procedure is pronounced “Northern”. The arrow indicates the direction of travel for departing or arriving procedures.

Departures

TORG → **Arrivals**

Waypoint – Represents a latitude/longitude point on a procedure. Waypoints also use five-letter designations. This waypoint is pronounced “Slush”

SLUSH

7 DME – Represents the existing area seven miles from the on-airport navigation equipment

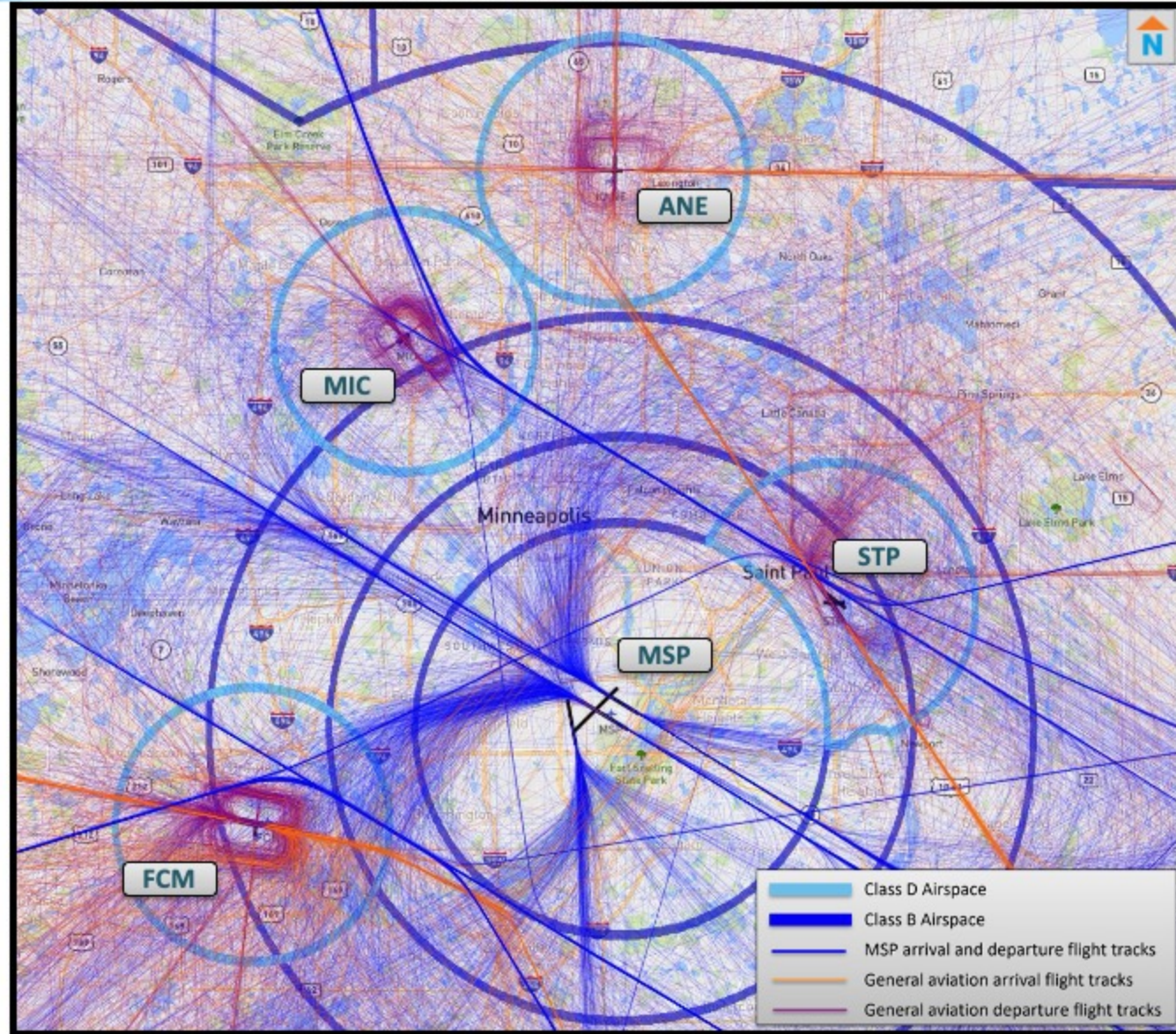
Flight Path Area – Represents the area that aircraft will fly in the future when Air Traffic Controllers give pilots dispersed headings to follow, called vectors.

Departures

Arrivals

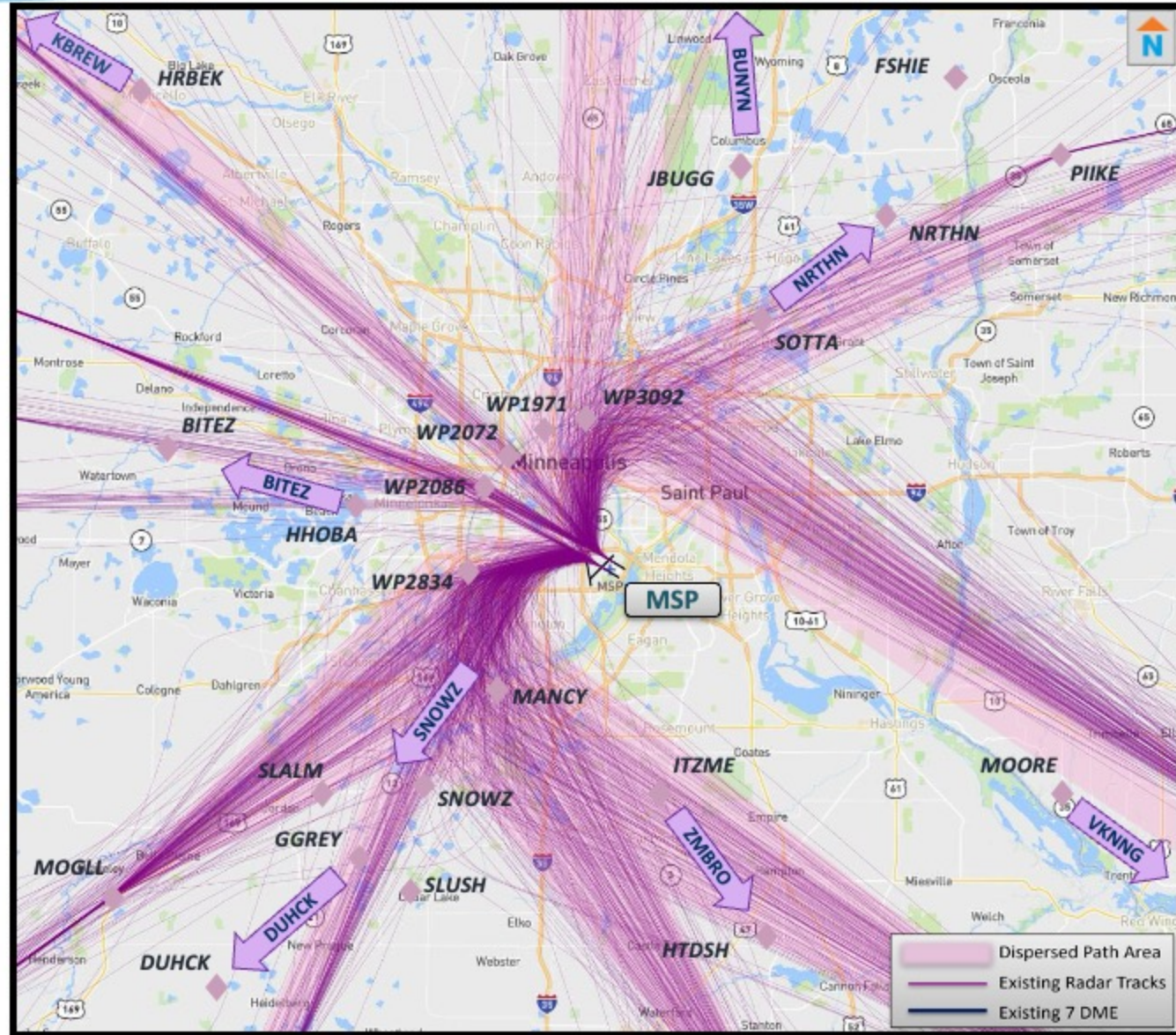
STAR Standard Terminal Arrival Route
SID Standard Instrument Departure
ATC Air Traffic Control
RNAV Area Navigation





Minneapolis Metro Area Aircraft Operations

- This board shows flight tracks for Anoka County (ANE), Crystal (MIC), Flying Cloud (FCM), St. Paul Downtown (STP) and Minneapolis Int'l airports (MSP)
- Each airport has dedicated airspace with a control tower and air traffic controllers
- These other airports are used by corporate jets, flight schools, medical transportation, law enforcement, and recreation operations
- Flight procedures for each airport are designed to avoid adjoining airport airspace
- Airports may share procedures where aircraft from multiple airports are sequenced to join a procedure

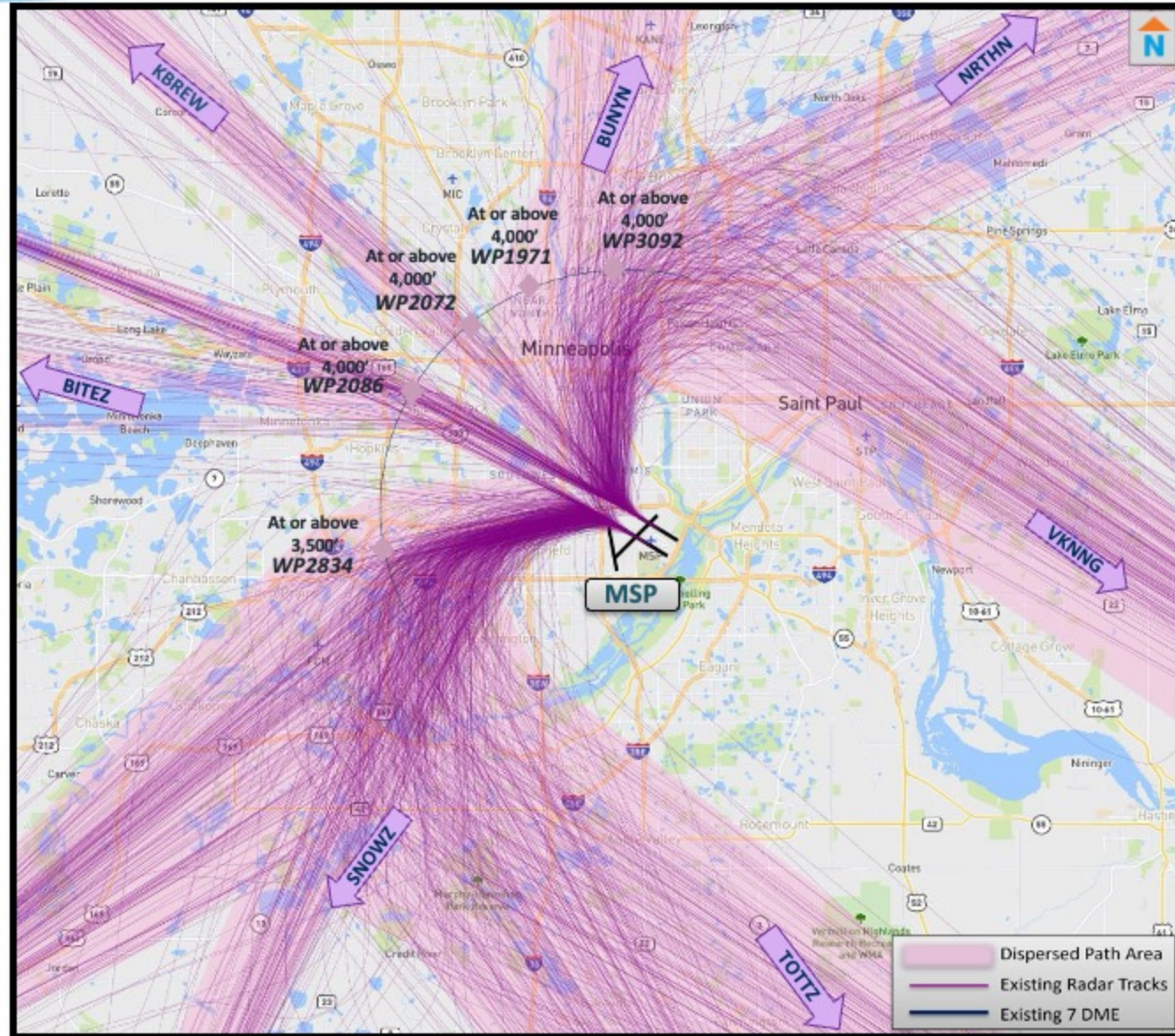


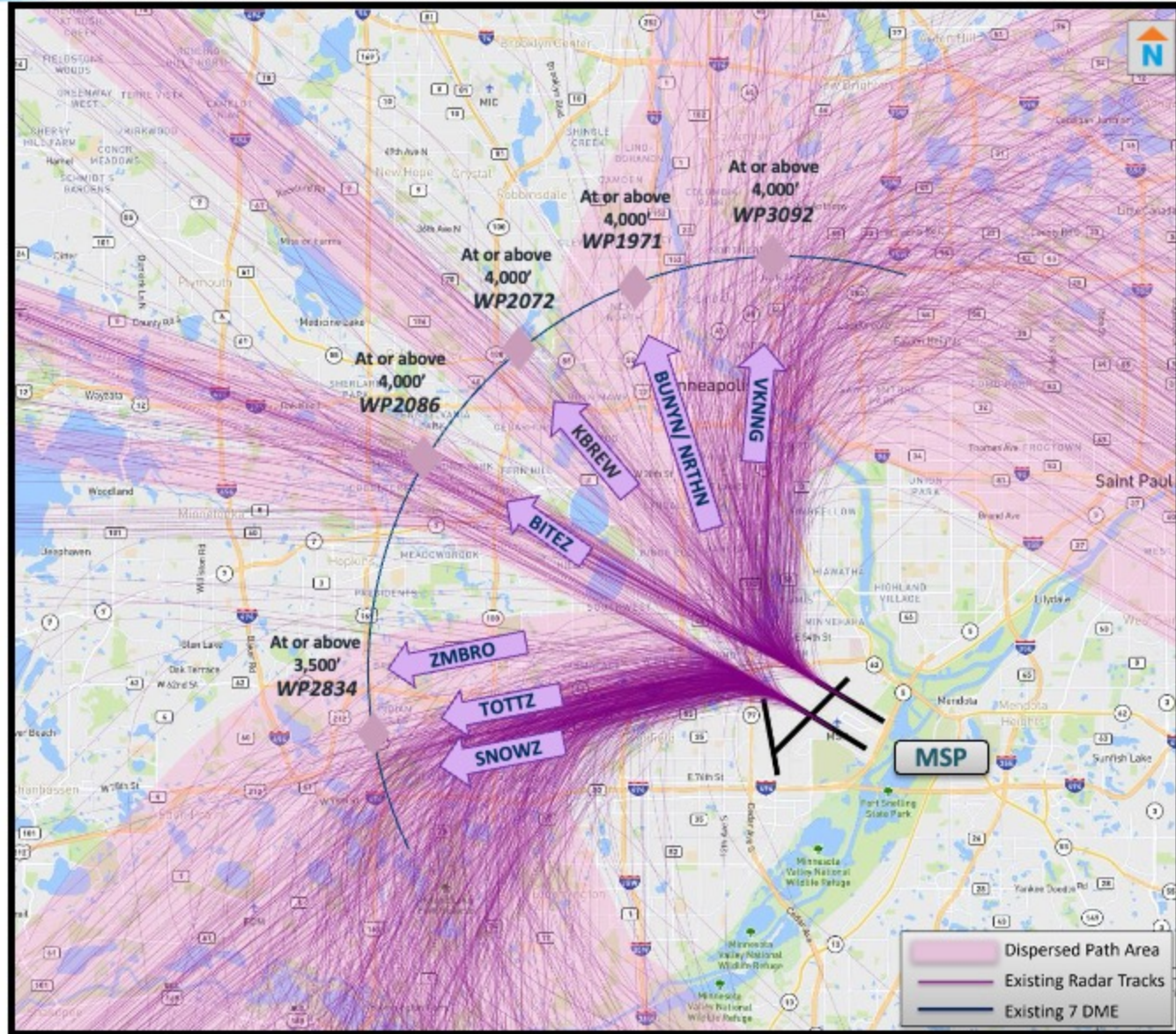
North Flow Departures Runway 30R & 30L

- This board shows a zoomed-out view of the proposed SIDs for north flow
- The new procedures include existing voluntary noise abatement
- The following boards are more zoomed-in and provide additional details

North Flow Departures Runway 30R & 30L

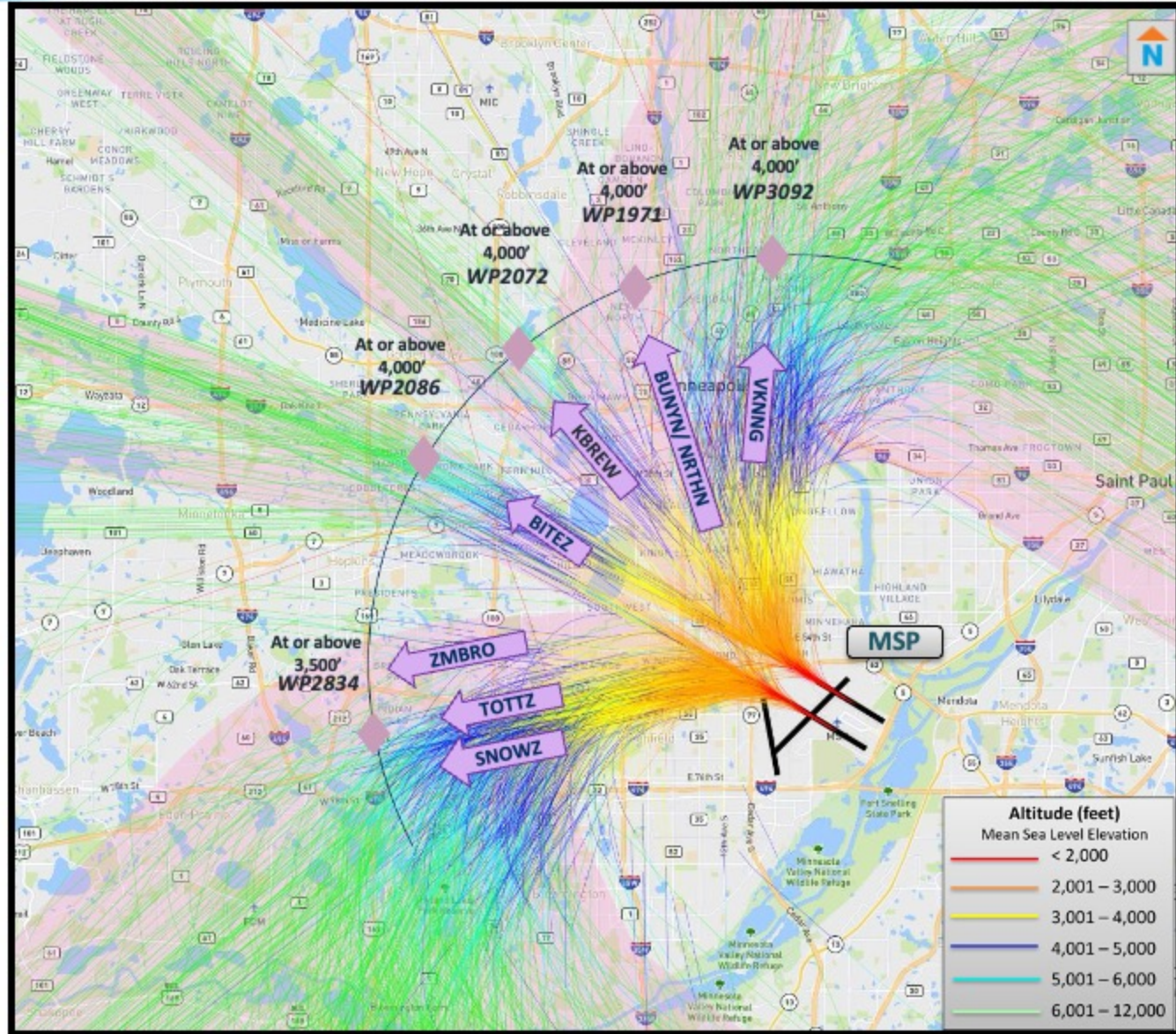
- This board shows a zoomed-in view of the proposed departures in north flow
- ATC normally assigns a departure procedure based on the most efficient route to the aircraft's destination
- The proposed departure procedures are designed to replicate the current procedures as close as possible, including aircraft dispersed on initial headings





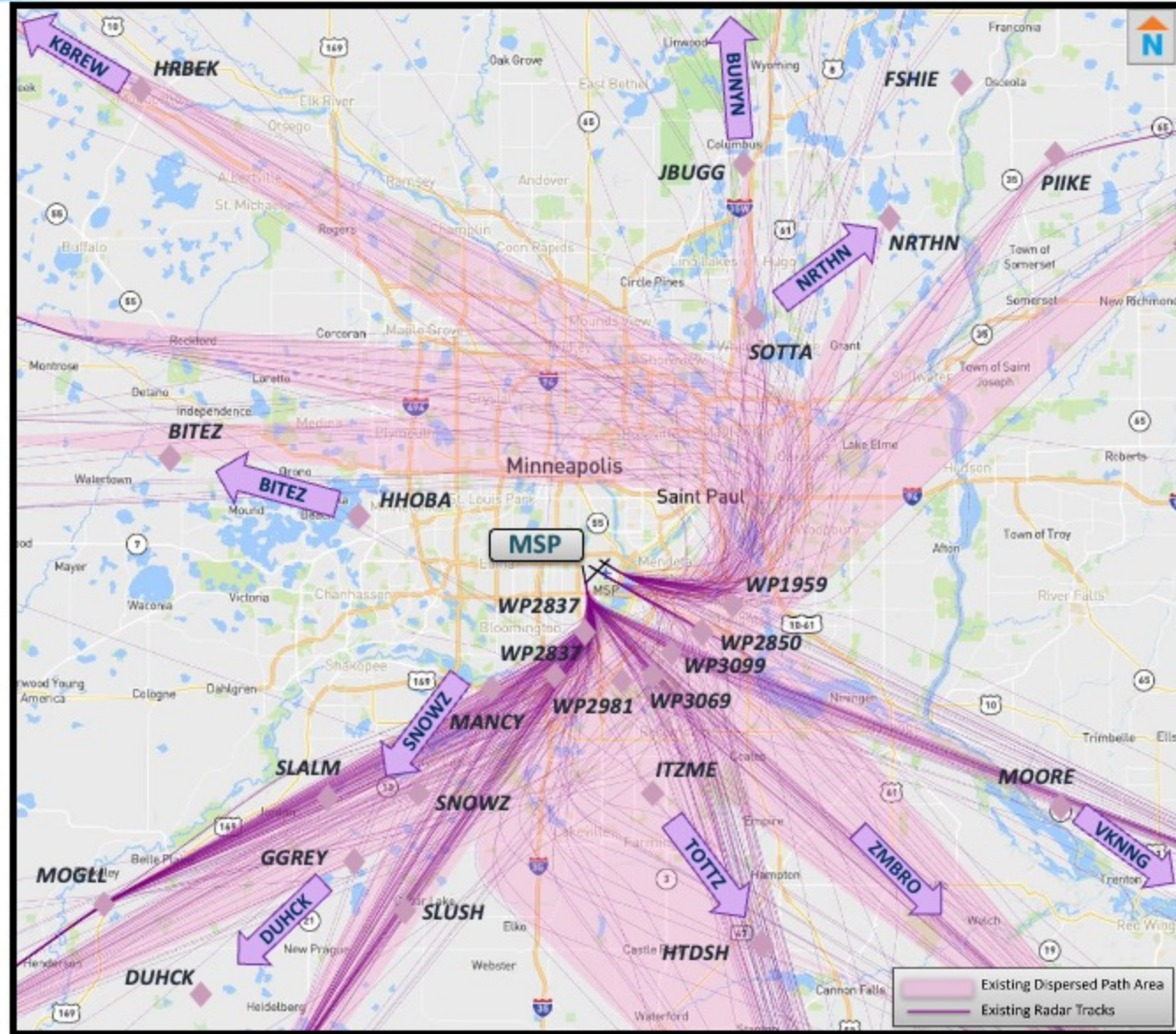
North Flow Departures Runway 30R & 30L

- This board shows a close-in version of proposed north flow departure procedures
- Aircraft will be issued a departure procedure based on destination
- Once aircraft take off and are at a safe altitude, ATC may turn aircraft on course, before reaching the initial waypoints, when it is operationally safe
- The waypoints are in the approximate area of the existing 7 DME arc, shown in blue
- The proposed procedures will mimic how aircraft depart MSP today, providing dispersion of flight tracks



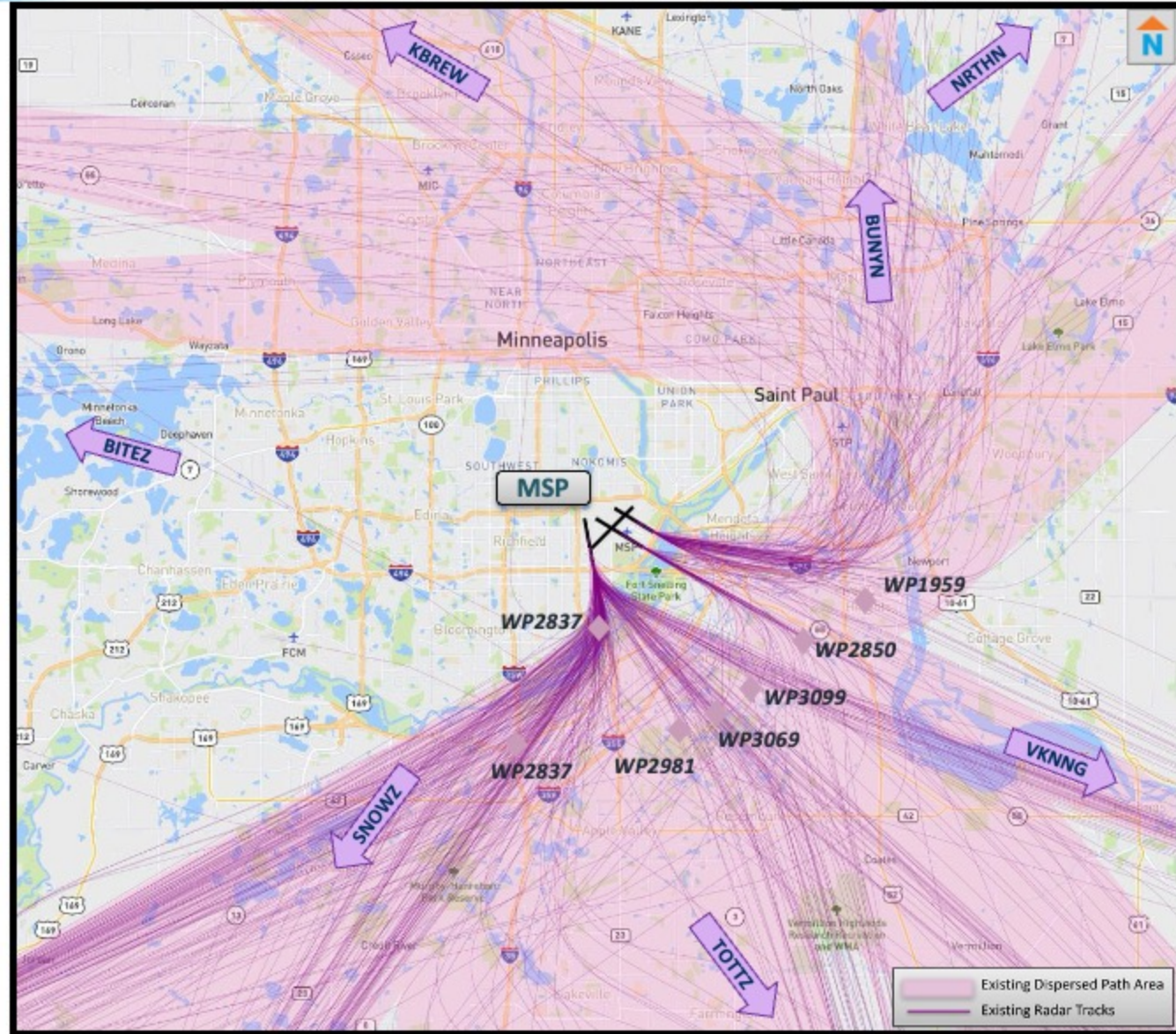
North Flow Departures Runway 30R & 30L

- This board shows a close-in view of proposed RNAV vector SIDs with existing flight tracks
- Existing aircraft flight tracks are shown color coded by altitude
- The proposed procedures reduce/eliminate the need to keep aircraft lower on departure, they may climb unrestricted
- The proposed procedures allow ATC to give an aircraft a heading and altitude to follow, reducing the need for progressive instructions



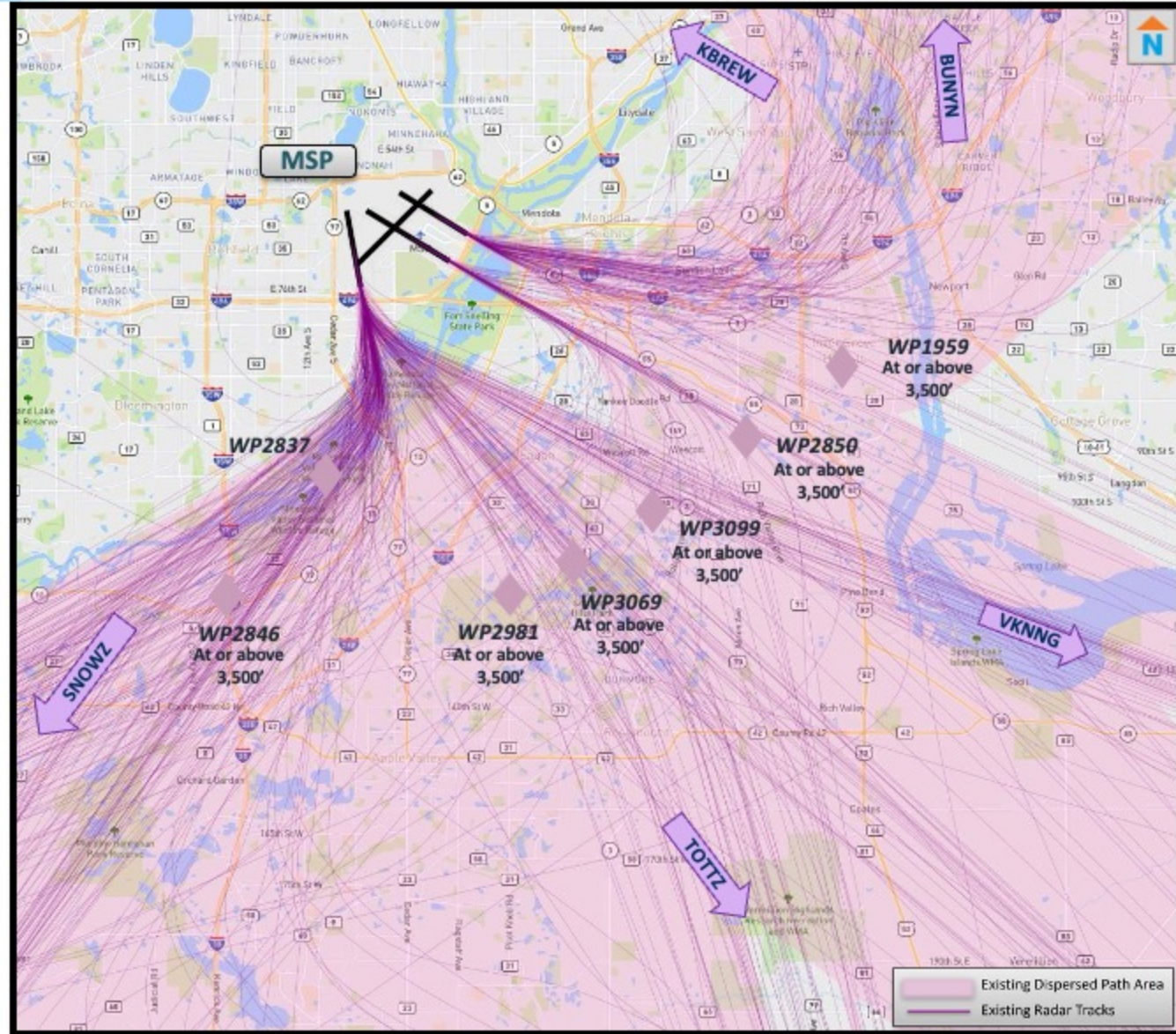
South Flow Departures Runway 12R & 12L, 17

- This board shows aircraft departing on SIDs from Runway 12R and 12L and Runway 17
- Aircraft departing Runway 12R and 12L will continue to use the Eagan-Mendota Heights Corridor
- Use of the Eagan-Mendota Heights Corridor maintains the Crossing-in-the-Corridor noise abatement procedure



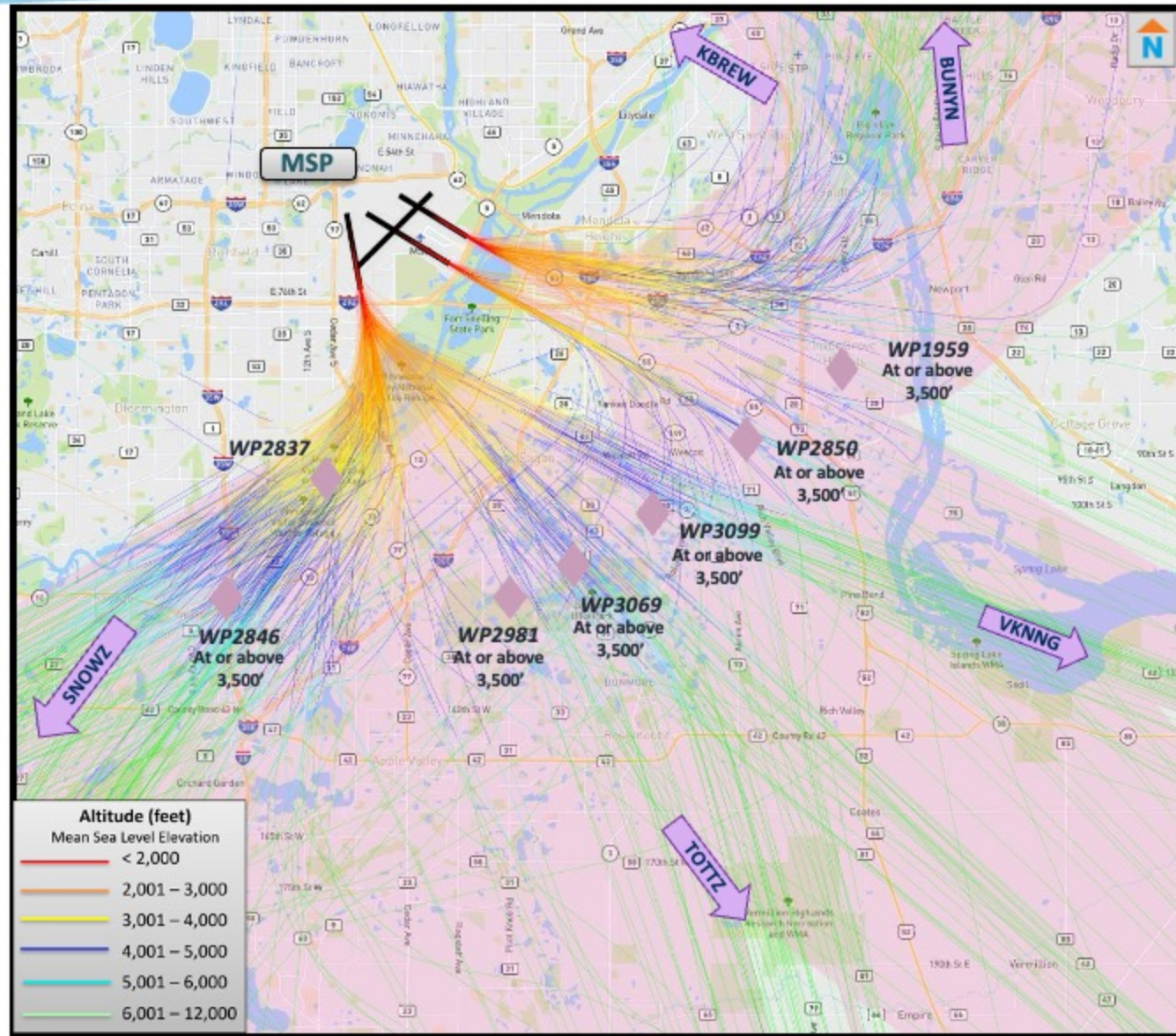
South Flow Departures Runway 12R & 12L, 17

- Aircraft are assigned an initial heading based on the aircraft destination, operational need, and sequencing of aircraft to maintain required separation
- The proposed initial headings replicate the VOR-based headings currently used to disperse departures
- The proposed procedures were designed to give ATC flexibility to manage air traffic for safety and efficiency, which inherently increases dispersion
- ATC normally assigns a departure procedure based on the most efficient route to the aircraft's destination



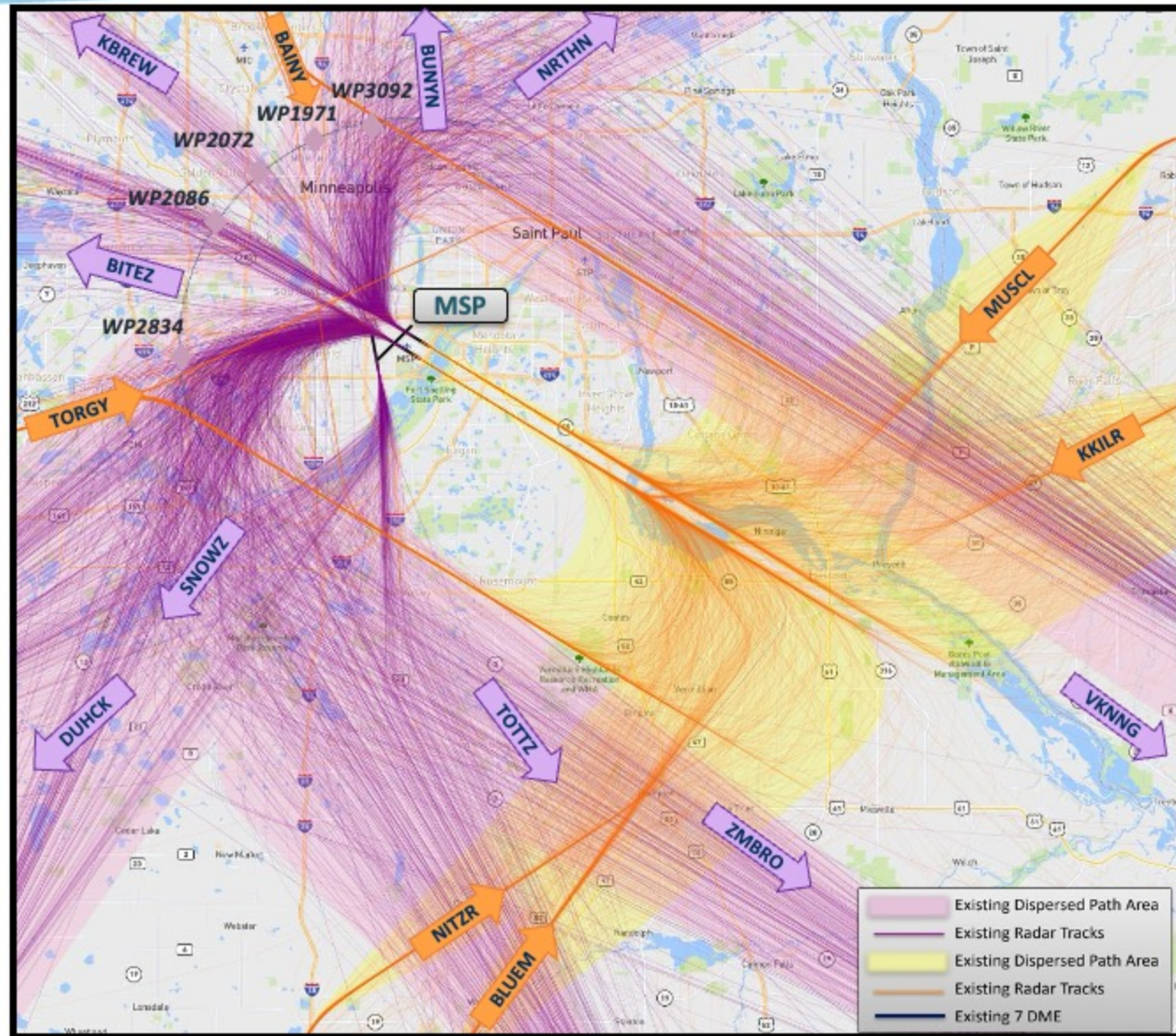
South Flow Departures Runway 12R & 12L, 17

- This board shows a close-in version of proposed south flow departure procedures and existing flight tracks.
- Once aircraft take off and are at a safe altitude, ATC may turn aircraft on course when it is operational safe
- For aircraft flying to the southwest, the proposed procedures include following the Minnesota River
- The proposed SIDs will provide the necessary separation from arriving aircraft



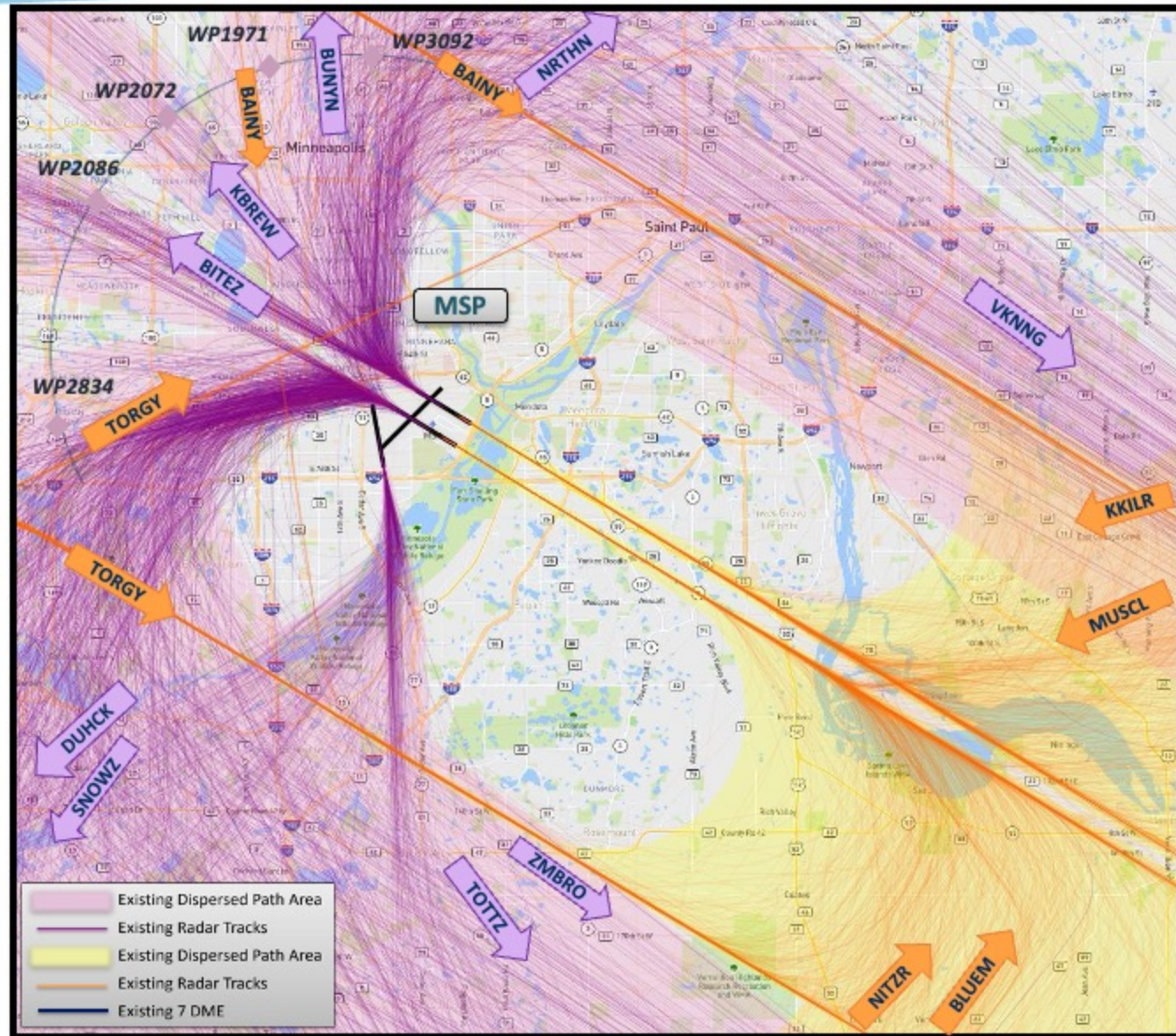
South Flow Departures Runway 12R & 12L, 17

- This board shows a close-in view of proposed RNAV vector SIDs with existing flight tracks.
- Existing aircraft flight tracks are shown color coded by altitude.
- The proposed procedures reduce/eliminate the need to keep aircraft lower on departure, they may climb unrestricted
- The proposed procedures allow ATC to give an aircraft a heading and altitude to follow, reducing the need for progressive instructions.



Mixed Flow Arrivals & Departures Runway 30L & 30R Departures Runway 17

- This board shows a zoomed in view of Mixed A flow
- In this operational flow, aircraft will land to the north and take off to the southwest and north
- Aircraft will also use the Eagan Mendota Heights corridor to land



Mixed Flow Arrivals & Departures Runway 30L & 30R Departures Runway 17

- This board shows the operational flow called Mixed A.
- In this operational flow, aircraft will land to the north and take off to the southwest and north
- Aircraft departing to the southwest will fly over the river

December 16, 2024

Vonnie L. Giles, Manager (A), Operations Support Group
ATO Central Service Center, AJV-C2
US Department of Transportation
Federal Aviation Administration

RE: Proposed FAA Procedure Changes at Minneapolis-St. Paul Airport
Bloomington, Hennepin County
SHPO No. 2025-0148

Dear Vonnie Giles,

Thank you for initiating consultation on the above referenced project. Information received on November 4, 2024, has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and its implementing federal regulations, "Protection of Historic Properties" (36 CFR Part 800).

As stated in your correspondence, the Federal Aviation Administration (FAA) is proposing changes to existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington. The FAA is modernizing the National Airspace System nationwide by discontinuing outdated ground-based navigational equipment and implementing Global Positioning System (GPS)-based procedures to enhance safety and efficiency of airport operations. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control. Updated FAA safety regulations will require the amendment or cancellation of current departure procedures and the development of new Area Navigation (RNAV) departure procedures.

According to your submission, the FAA compared the existing flight tracks of aircraft flying under current procedures to flight tracks of aircraft flying under the proposed procedures, and the aircraft are expected to remain at approximately the same altitudes as the existing procedures and therefore there should be no increase in visual, atmospheric or audible elements along these flight tracks. Also, based on this comparison, the FAA determined that there would be no new areas overflowed as a result of the new procedures and therefore no potential to introduce new visual, atmospheric, or audible elements. Based on this evaluation, the FAA has determined that the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist.

Based on the information provided, we concur with your agency's finding of **no historic properties affected** for this undertaking.

If you have any questions regarding our review of this project, please contact Kelly Gragg-Johnson, Environmental Review Program Specialist, at (651) 201-3285 or kelly.graggjohnson@state.mn.us.

Sincerely,



Amy Spong
Deputy State Historic Preservation Officer

MINNESOTA STATE HISTORIC PRESERVATION OFFICE

50 Sherburne Avenue ■ Administration Building 203 ■ Saint Paul, Minnesota 55155 ■ 651-201-3287 mn.gov/admin/shpo ■
mnshpo@state.mn.us

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U.S. Department
of Transportation

**Federal Aviation
Administration**

November 1, 2024

Mr. Matthew Tselee
Chairman
Apache Tribe of Oklahoma
P.O. Box 1330
Anadarko, OK 73005
via E-mail: matthew.tselee@apachetribe.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Tselee,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

The FAA is modernizing the National Airspace System nationwide by discontinuing outdated ground-based navigational equipment and implementing Global Positioning System (GPS)-Based procedures to enhance the safety and efficiency of airport operations. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures

(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking.” 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the existing flight tracks of aircraft flying the current procedures (Existing Radar Tracks) to the proposed procedures (Expected Path Area). The comparison is depicted in the attached procedure boards. The proposed procedures were developed to mimic the current procedures and aircraft are expected to remain at approximately the same altitudes with the proposed procedure. Based on this comparison, the FAA determined that there would be no new areas overflown by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

**VONNIE L
GILES**

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Date: 2024.11.01 10:23:50
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Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Garrie Kills-A-Hundred
THPO
Flandreau Santee Sioux Tribe of South Dakota
P.O. Box 283
Flandreau, SD 57028
via E-mail: garrie.killsahundred@fsst.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Kills-A-Hundred,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

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The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures

(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

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The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the existing flight tracks of aircraft flying the current procedures (Existing Radar Tracks) to the proposed procedures (Expected Path Area). The comparison is depicted in the attached procedure boards. The proposed procedures were developed to mimic the current procedures and aircraft are expected to remain at approximately the same altitudes with the proposed procedure. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of

historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

**VONNIE L
GILES**

 Digitally signed by
VONNIE L GILES
Date: 2024.11.01 10:42:25
-05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Michael Blackwolf
THPO
Fort Belknap Indian Community of the Fort Belknap Reservation of Montana
656 Agency Main Street
Harlem, MT 59526
via E-mail: mblackwolf@ftbelknap.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Blackwolf,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

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The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures

(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

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The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the existing flight tracks of aircraft flying the current procedures (Existing Radar Tracks) to the proposed procedures (Expected Path Area). The comparison is depicted in the attached procedure boards. The proposed procedures were developed to mimic the current procedures and aircraft are expected to remain at approximately the same altitudes with the proposed procedure. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of

historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

**VONNIE L
GILES**

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Date: 2024.11.01 10:41:11
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Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Lance Foster
THPO
Iowa Tribe of Kansas and Nebraska
3345 Thrasher Road
White Cloud, KS 66094
via E-mail: lfoster@iowas.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Foster,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

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Proposed Action

The FAA is modernizing the National Airspace System nationwide by discontinuing outdated ground-based navigational equipment and implementing Global Positioning System (GPS)-Based procedures to enhance the safety and efficiency of airport operations. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures

(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking.” 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the existing flight tracks of aircraft flying the current procedures (Existing Radar Tracks) to the proposed procedures (Expected Path Area). The comparison is depicted in the attached procedure boards. The proposed procedures were developed to mimic the current procedures and aircraft are expected to remain at approximately the same altitudes with the proposed procedure. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of

historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

**VONNIE L
GILES**

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Date: 2024.11.01
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Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. David Grignon
THPO
Menominee Indian Tribe of Wisconsin
P.O. Box 910
Keshena, WI 54135
via E-mail: dgrignon@mitw.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Grignon,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

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The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures

(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

As part of its responsibilities under Section 106, the FAA attempted to identify the Area of Potential Effect (APE) for the undertaking. The Section 106 regulations define the APE as “the geographical area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking.” 36 CFR 800.16(d).

The Proposed Action will not cause any physical effects. However, pursuant to 36 CFR 800.5(a)(2)(v), the FAA also considered the potential for the undertaking to introduce visual, atmospheric, or audible elements that could diminish the integrity of an historic property's significant historic features. The FAA compared the existing flight tracks of aircraft flying the current procedures (Existing Radar Tracks) to the proposed procedures (Expected Path Area). The comparison is depicted in the attached procedure boards. The proposed procedures were developed to mimic the current procedures and aircraft are expected to remain at approximately the same altitudes with the proposed procedure. Based on this comparison, the FAA determined that there would be no new areas overflowed by the Proposed Action, and therefore no potential to introduce new visual, atmospheric, or audible elements.

The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

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historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

VONNIE L GILES

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GILES

Date: 2024.11.01 10:38:33 -05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Noah White
THPO
Prairie Island Indian Community in the State of Minnesota
5636 Sturgeon Lake Road
Welch, MN 55089
via E-mail: noah.white@piic.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. White,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

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(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

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The FAA also considered the potential for the undertaking to have noise effects that could alter the character or use of historic properties. The FAA conducted a noise screen to determine how this undertaking could affect current aircraft noise exposure levels. The noise levels in the APE did not change from current conditions.

After careful evaluation of the proposed action compared to the no action alternative, the FAA determined the new procedures fall within the boundaries of the current flight tracks and therefore should not directly or indirectly cause alterations in the character or use of

historic properties if any such properties exist. Based on the FAA's determination that this undertaking does not have an Area of Potential Effect, the FAA is proposing a finding of *no historic properties affected*, pursuant to 36 CFR 800.4(d)(1).

Request for Concurrence

The FAA requests your review of the information listed within this document, and we seek concurrence with the FAA's finding pursuant to 36 CFR 800.4(d)(1) that no historic properties would be affected by the proposed action. As set forth in 36 CFR 800.4(d)(1)(i), any objections must be filed within 30 days receipt of the FAA's finding. If you have any initial comments or questions on this undertaking, please contact Kristi Regotti at (817) 222-5763 or kristi.regotti@faa.gov. We look forward to your response.

Sincerely,

VONNIE L GILES

Digitally signed by VONNIE L
GILES
Date: 2024.11.01 10:35:47
-05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Larry Thomas
THPO
Santee Sioux Nation
425 Frazier Ave N Suite 2
Niobrara, NE 68760
via E-mail: larry.thomas@ohiyacasino.com

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Thomas,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

The Proposed Action and its associated activities are also subject to the National Environmental Policy Act (NEPA) and the FAA has initiated preparation of an appropriate NEPA document to meet its regulatory obligations. The FAA intends to complete Section 106 in conjunction with the NEPA process.

Proposed Action

The FAA is modernizing the National Airspace System nationwide by discontinuing outdated ground-based navigational equipment and implementing Global Positioning System (GPS)-Based procedures to enhance the safety and efficiency of airport operations. At MSP, these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025. The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures

(implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures. RNAV enables aircraft to fly on any desired flight path within the coverage of ground- or space- based navigation aids, within the limits of the capability of aircraft self-contained systems, or a combination of both capabilities. RNAV provides for a more efficient design of airspace and procedures which collectively result in improved safety, capacity, predictability, operational efficiency, and environmental impacts. Specifically, improved access and flexibility help to enhance reliability and reduce delays by defining more precise terminal area procedures. These procedures reduce the risk of communication errors for pilots and air traffic control and take advantage of the aircraft's onboard navigation system.

The current procedures need to be modified to be compliant with current criteria to maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning. These upgraded RNAV departures were designed to initially use multiple headings on departure, as is done today, to disperse traffic above the airport's surrounding communities.

Additional information about the project can be found on the community engagement webpage at: https://www.faa.gov/air_traffic/community_engagement/msp

Area of Potential Effects

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Sincerely,

VONNIE L GILES

Digitally signed by VONNIE L

GILES

Date: 2024.11.01 10:34:48 -05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Leonard Wabasha
THPO
Shakopee Mdewakanton Sioux Community
2330 Sioux Trail N.W.
Prior Lake, MN 55372
via E-mail: leonard.wabasha@shakopeedakota.org

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Wabasha,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

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Sincerely,

VONNIE L GILES

Digitally signed by VONNIE L
GILES

Date: 2024.11.01 10:33:17 -05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2

From: [Leonard Wabasha \(TO\)](#)
To: [Regotti, Kristi \(FAA\)](#)
Cc: [Brewer, William \(FAA\)](#)
Subject: RE: FAA Section 106 Consultation
Date: Monday, November 4, 2024 8:02:04 AM
Attachments: [image001.png](#)

CAUTION: This email originated from outside of the Federal Aviation Administration (FAA). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Kristi Regotti

Thank you for the opportunity to consult. As there are no current proposed ground disturbances with this action the Shakopee Mdewakanton Sioux Community is in concurrence with the "Finding of No Significant Impact". Should ground disturbance become a concern please inform us for further consultation. Thank you and Have a Great Day!



LEONARD WABASHA

Tribal Historic Preservation Officer • Cultural Resources
Shakopee Mdewakanton Sioux Community
d: 952.496.6120
shakopeedakota.org
Leonard.Wabasha@shakopeedakota.org

The Shakopee Mdewakanton Sioux Community is a federally recognized, sovereign Indian tribe located southwest of Minneapolis/St. Paul. With a focus on being a good neighbor, good steward of the earth, and good employer, the SMSC is committed to charitable donations, community partnerships, a healthy environment, and a strong economy.

From: Regotti, Kristi (FAA) <Kristi.Regotti@faa.gov>
Sent: Monday, November 4, 2024 7:29 AM
To: Leonard Wabasha (TO) <leonard.wabasha@shakopeedakota.org>
Cc: Brewer, William (FAA) <william.brewer@faa.gov>
Subject: FAA Section 106 Consultation

You don't often get email from kristi.regotti@faa.gov. [Learn why this is important](#)

This message came from **outside the organization**. Do Not click on links, open attachments or respond unless you know the content is safe.

Good morning. The FAA is proposing changes to the existing procedures at Minneapolis-St. Paul International Airport. The project is subject to Section 106 of the National Historic Preservation Act. As such, we have provided, in the attached documentation, our determination of the Area of Potential Effect and our proposed finding of impacts on historic properties. We request your review of the information and seek concurrence from your office.

I will be out of the office November 6-26, 2024. If you have immediate questions, please reach out to my colleague, Bill Brewer, for additional information during that time. He may be reached at William.brewer@faa.gov or 817.222.4315.

I look forward to your response.

Respectfully,

Kristi Regotti
Environmental Specialist
FAA – ATO Central Service Center
Operations Support Group, AJV-C25
10101 Hillwood Parkway
Fort Worth, Texas 76177
817-222-5763

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The information contained in this message is confidential. If you are not the intended recipient, dissemination or copying of this information is prohibited.  
If you have received this communication in error, please notify the sender and delete the message from your system. Thank you!

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U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Ms. Dianne Desrosiers
THPO
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
P.O. Box 907
Sisseton, SD 57262
via E-mail: dianned@swo-nsn.gov

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Ms. Desrosiers,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

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Proposed Action

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Request for Concurrence

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Sincerely,

VONNIE L GILES Digitally signed by VONNIE L
GILES
Date: 2024.11.01 10:32:08 -05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Mr. Kenneth Graywater
THPO
Spirit Lake Tribe
P.O. Box 198
Fort Totten, ND 58335
via E-mail: thpo@spiritlakenation.com

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Mr. Graywater,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

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Sincerely,

VONNIE L GILES

Digitally signed by VONNIE L
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Date: 2024.11.01 10:30:34 -05'00'

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2



U.S. Department
of Transportation

**Federal Aviation
Administration**

October 31, 2024

Ms. Samantha Odegard
THPO
Upper Sioux Community
P.O. Box 147, 5722 Travers Lane
Granite Falls, MN 56241
via E-mail: samanthao@uppersiouxcommunity-nsn.gov

RE: Section 106 Consultation for proposed FAA procedure changes at
Minneapolis- St. Paul International Airport

Dear Ms. Odegard,

The Federal Aviation Administration (FAA) is proposing changes to the existing procedures at Minneapolis-St. Paul Airport (MSP) in Bloomington, Minnesota. The FAA has determined that this proposal is an ‘undertaking’ subject to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800 (as amended).

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Sincerely,

**VONNIE L
GILES**

Vonnie L. Giles
Manager (A), Operations Support Group,
ATO Central Service Center, AJV-C2

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Date: 2024.11.01 10:29:29
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Appendix D

Noise Screening Report

Noise Screening Analysis Report

For

Minneapolis-Saint Paul International Airport

KMSP

Saint Paul, MN

Prepared by:

AJV-C25 Environmental, CI & NAS Analytics Team

December 31, 2024

KMSP Noise Screening Analysis Report

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

Summary

Noise analysis was completed to assess potential impacts resulting from proposed air traffic actions at Minneapolis-Saint Paul International Airport (KMSP) in Saint Paul, MN, using the Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) Environmental Plug-in tool and the Aviation Environmental Design Tool (AEDT).

Historical radar track data was used to create a baseline scenario. After the baseline scenario was built, aircraft operations were reassigned to the proposed procedures, which provides the alternative scenario. A second alternative scenario was built to account for new Converging Runway Operations (CRO) procedures. Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for all three scenarios using AEDT. The scenarios were then compared to determine the potential for significant noise impacts. In the case of KMSP, there was **no reportable noise and no significant impacts** resulting from the proposed actions.

KMSP Noise Screening Analysis Report

This Noise Screening Report was prepared by the FAA to assess noise exposure from the proposed project under consideration. Even though the data and results contained in the report are accurate, the report is a preliminary document, potentially subject to revision, until the FAA makes a final environmental decision related to the proposed project.

Minneapolis-Saint Paul International Airport Noise Screening Analysis Report

1. Purpose

The purpose of this report is to document the analysis of potential noise impacts resulting from proposed airspace actions at KMSP in Saint Paul, MN and to present the results of that analysis. Table 1 shows the procedures included in the proposed action; Instrument Approach Procedure (IAP), Standard Terminal Arrival (STAR) and Standard Instrument Departure (SID). Figure 1-1 shows the airport diagram for KMSP, which provides the runway layout and the airport's field elevation.

Noise Screening uses FAA-Approved tools to determine the potential for extraordinary circumstances and may be used to rule out the need for more detailed noise analysis where a Categorical Exclusion (CATEX) may apply. The results presented in this document do not provide an environmental decision, but are intended to inform the responsible FAA Service Center Environmental Specialist in determining the appropriate level of environmental review.

Table 1: Proposed Procedures Modeled for KMSP

Procedure Name	Procedure Type
ILS OR LOC RWY 12L	IAP
ILS OR LOC RWY 12R	IAP
ILS OR LOC RWY 30L	IAP
ILS OR LOC RWY 30R	IAP
ILS OR LOC RWY 35	IAP
RNAV (GPS) RWY 12L	IAP
RNAV (GPS) RWY 12R	IAP
RNAV (GPS) RWY 30L	IAP
RNAV (GPS) RWY 30R	IAP
RNAV (GPS) RWY 35	IAP
RNAV (RNP) RWY 12L	IAP
RNAV (RNP) RWY 12R	IAP
RNAV (RNP) RWY 30L	IAP
RNAV (RNP) RWY 30R	IAP
RNAV (RNP) RWY 35	IAP

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BAINY (RNAV)	STAR
BLUEM (RNAV)	STAR
KKILR (RNAV)	STAR
MUSCL (RNAV)	STAR
NITZR (RNAV)	STAR
TORGY (RNAV)	STAR
BITEZ (RNAV)	SID
BUNYN (RNAV)	SID
DUHCK (RNAV)	SID
HTDSH (RNAV)	SID
KBREW (RNAV)	SID
NRTHN (RNAV)	SID
SNOWZ (RNAV)	SID
SNUPE (RNAV)	SID
TOTTZ (RNAV)	SID
ZMBRO (RNAV)	SID

KMSP Noise Screening Analysis Report

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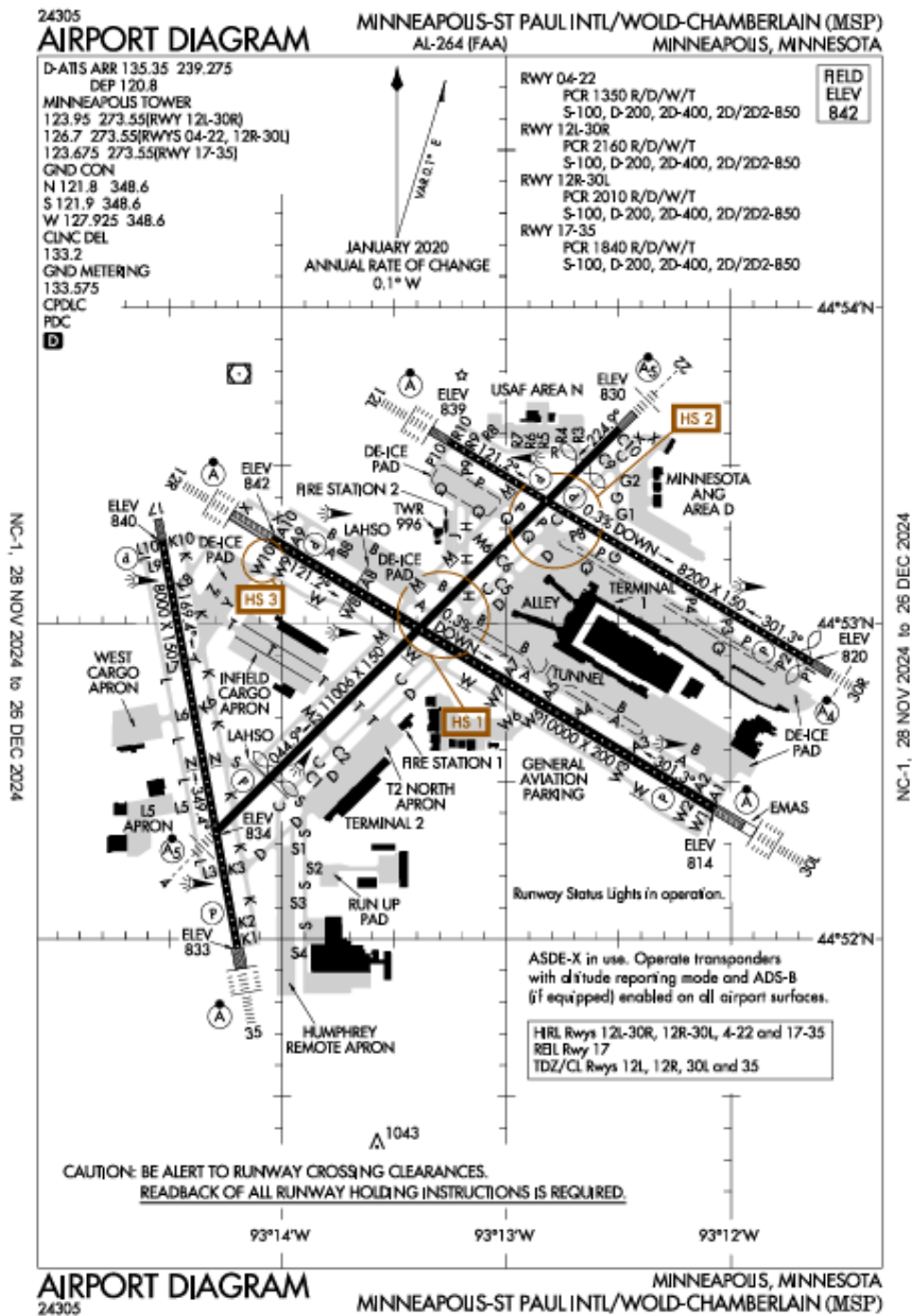


Figure 1-1: Airport Diagram of KMSP

KMSP Noise Screening Analysis Report

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2. Methods

Historical radar track data for KMSP was obtained from the Performance Data Analysis and Reporting System (PDARS). The following satellite airports were added to numerous SID procedures, so radar track data was also included for them in the project: Anoka County-Blaine Airport (KANE), Flying Cloud Airport (KFCM) and Saint Paul Downtown Airport (KSTP). The Metropolitan Airports Commission provided the following list of dates where runways were closed for construction projects or there was unusual runway usage: 9/6/22 to 10/17/22 construction, 2/20/23 to 2/23/23 severe winter storm and 5/20/23 to 6/8/23 unusual flows due to wind conditions. Dates were randomly selected from the remaining available dates within a recent 12-month period. The random dates are assumed to represent average typical runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions. A list of dates selected for the analysis is provided in Appendix A.

After the removal of overflights and incomplete track segments, 59,532 total tracks were used for the analysis which is representative of the airport runway usage found in Appendix B. The CRO runway usage can be found in Appendix C. Arrival and departure tracks are analyzed regardless of type of procedure being planned to capture any changes to the overall noise footprint. The altitude of the historical tracks was considered, and a range ring was set to contain the area where the majority of tracks reached above 10,000 feet above ground level (AGL). This established the study area for the analysis and in the case of KMSP, the study area is a circle with a radius of 35 nautical miles centered over the airport. There were multiple discussions with MSP controllers on how procedures would be used which helped build the alternative scenarios. Based on those discussions, some waypoints were not used in the alternative scenarios to account for how controllers will vector according to their standard operations.

Annual operation counts and runway usage were obtained through a runway usage report from the FAA's IFP, Operations and Airspace Analytics Tool (IOAA) Runway Usage Module and were used to calculate the Average Annual Day (AAD) impacts. The analysis does not consider terrain. All calculations were made in reference to the airport's field elevation. RNAV equipped aircraft were separated from non-RNAV equipped aircraft (as indicated in the track data). Only RNAV equipped aircraft were modeled as flying the RNAV procedure. Where non-RNAV procedures are proposed, non-RNAV equipped aircraft were modeled as flying those procedures. The remaining aircraft were modeled as remaining on their historic flight paths. The runway usage chart broken down by annual operations, daily operations, arrivals, departures and runway is shown in Appendix B.

Once the baseline and alternative scenarios were built, the TARGETS Environmental Plug-in Tool was used to generate noise outputs for both scenarios. The Environmental Plug-in Tool uses the Aviation Environmental Design Tool version 3f (AEDT 3f) to calculate noise. The noise output files from AEDT 3f for both the baseline and alternative noise exposures consist of a series of equally spaced grid points, each showing a DNL value. The noise grid (receptor set) consists of grid points (receptors) spaced 0.25 nm apart. There may be a difference in the location of grid points between the baseline and alternative scenarios; however, that is not indicative of reportable or significant impacts. The noise impact is a comparison between the baseline and the alternative noise exposure that will depict reportable and significant noise changes (if applicable) at all affected receptors per the criteria indicated in FAA Order 1050.1F and Chapter 32 of FAA Order 7400.2K. Noise impacts are discussed in Section 3.

KMSP Noise Screening Analysis Report

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3. Noise Impacts

A comparison of the baseline and alternative scenarios by the TARGETS Environmental plug-in determines the noise impacts of the proposed action. Significance of noise impacts is defined by FAA Order 1050.1F which establishes the threshold for significant impacts in noise exposure. Where the proposed action results in a noise impact, TARGETS graphically displays a noise impact layer that indicates the relative locations of reportable and significant changes. In the case of KMSP, there was **no reportable noise and no significant impacts** in noise resulting from the proposed procedures.

KMSP Noise Screening Analysis Report

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Appendix A

Randomized Dates

ID	DATES		31	1/21/2023
1	7/2/2022		32	1/24/2023
2	7/6/2022		33	1/29/2023
3	7/12/2022		34	2/6/2023
4	7/17/2022		35	2/11/2023
5	7/25/2022		36	2/15/2023
6	7/29/2022		37	2/25/2023
7	8/1/2022		38	2/28/2023
8	8/9/2022		39	3/3/2023
9	8/17/2022		40	3/8/2023
10	8/25/2022		41	3/12/2023
11	8/30/2022		42	3/17/2023
12	9/2/2022		43	3/22/2023
13	9/5/2022		44	3/29/2023
14	10/18/2022		45	4/5/2023
15	10/20/2022		46	4/10/2023
16	10/26/2022		47	4/15/2023
17	10/29/2022		48	4/20/2023
18	11/7/2022		49	4/24/2023
19	11/10/2022		50	4/27/2023
20	11/15/2022		51	5/1/2023
21	11/21/2022		52	5/5/2023
22	11/28/2022		53	5/8/2023
23	12/1/2022		54	5/12/2023
24	12/6/2022		55	5/16/2023
25	12/15/2022		56	6/9/2023
26	12/21/2022		57	6/13/2023
27	12/28/2022		58	6/22/2023
28	1/6/2023		59	6/26/2023
29	1/11/2023		60	6/30/2023
30	1/18/2023			

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Appendix B

KMSP, KSTP, KANE and KFCM Runway Usage

7/1/2022 to 6/30/2023

MSP Runway	Departures	Percent	Daily	Arrivals	Percent	Daily
4	358	0.2	1	0	0	0
12L	24138	15.6	66.1	30933	20	85
12R	17384	11.2	48	48612	31.4	133.2
17	46835	30.3	127.1	0	0	0
22	161	0.1	0.4	0	0	0
30L	36959	23.9	101.3	45481	29.4	125
30R	28805	18.6	79	28832	18.7	79
35	147	0.1	0.4	836	0.5	2.3
Totals	154787	100	423.3	154694	100	424.5
STP Runway	Departures	Percent	Daily	Arrivals	Percent	Daily
9	91	0.8	0.2	0	0	0
13	90	0.8	0.2	0	0	0
14	6016	51.3	16.5	6296	52.4	17.3
27	0	0	0	108	1	0.3
31	81	0.8	0.2	141	1.2	0.4
32	5436	46.3	15	5434	45.4	15
Totals	11714	100	32.1	11979	100	33
ANE Runway	Departures	Percent	Daily	Arrivals	Percent	Daily
9	4022	20.7	11	3999	20.5	11
18	5347	27.5	15	5581	28.6	15.2
27	5376	27.6	15	6364	32.7	17.4
36	4716	24.2	13	3539	18.2	10
Totals	19461	100	54	19483	100	53.6
FCM Runway	Departures	Percent	Daily	Arrivals	Percent	Daily
10L	11144	26.3	31	7092	17.6	19.4
10R	5160	12.2	14	9190	22.9	25.2
18	2370	5.6	6.5	2511	6.2	7
28L	7321	17.3	20	11562	28.8	32
28R	15515	36.6	43	8837	22	24.2
36	838	2	2.3	1014	2.5	3
Totals	42348	100	116.8	40206	100	110.8

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Appendix C

Alternative Scenario with CRO 4/14/2023 to 4/15/2024						
MSP Runway	Departures	Percent	Daily	Arrivals	Percent	Daily
4	91	0.2	0.2	0	0	0
12L	22659	14	62.1	30491	19	84
12R	12531	7.4	34.3	49234	30	135
17	57740	35	158.2	0	0	0
22	532	0.3	1.4	0	0	0
30L	39030	24	107	50998	31	140
30R	31569	19	86.5	30984	19	85
35	37	0.1	0.1	2280	1	6.2
Totals	164189	100	449.8	163987	100	450.2

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Appendix E

Community Involvement Summary Report

Introduction

The Federal Aviation Administration (FAA) is modernizing the national airspace system nationwide by discontinuing outdated ground-based navigational equipment and by implementing GPS-Based procedures to enhance safety and efficiency of airport operations. At Minneapolis-St. Paul Airport (MSP), these actions will help reduce delays while increasing safety due to more efficient communications between pilots and air traffic control.

The MSP Very High-Frequency Omnidirectional Range (VOR) is one of approximately 300 ground-based navigational aids that will no longer be necessary due to the development and implementation of GPS navigation. It is scheduled for decommissioning in mid-to-late 2025.

The decommissioning of the MSP VOR, coupled with updated FAA safety regulations will require the amendment or cancellation of current departure procedures (implemented in 2015) and the development of new Area Navigation (RNAV) departure procedures.

The current procedures need to be modified to be compliant with current criteria and maintain safety and efficiency at the airport. These current procedures would need to be updated, regardless of the VOR decommissioning.

Community Involvement

FAA's Community Involvement Policy Statement (April 17, 1995) affirms the FAA's commitment to make complete, open, and effective public participation an essential part of its actions, programs, and decisions. The project website can be found at:

https://www.faa.gov/air_traffic/community_engagement/msp

Specific community involvement milestones include:

- 1st Workgroup meeting: January 2023
- 2nd Workgroup meeting: May 2023
- 3rd Workgroup meeting: August 2023
- Briefing to the Metropolitan Airport Commission: October 2023
- Briefing to the Noise Oversight Committee: November 2023
- 4th Workgroup meeting: February 2024
- 1st Public Webinar: August 14, 2024
- 2nd Public Webinar: August 15, 2024
- Comment period: through September 15, 2024

Public Workshops

The FAA held two public video webinars to discuss departure procedure updates around MSP on Wednesday, August 14, 1:00pm to 3:30pm Central Time, and Thursday, August 15, 2024, 6:00pm to 8:30pm Central Time. The webinars were scheduled to run for two hours but, due to the volume of questions received, both were extended an additional 30 minutes.

These events featured presentations from the FAA, including regional leadership, air traffic control, airline representatives, and staff from the Metropolitan Airports Commission (MAC).

Topics included:

- Current management of the MSP airspace;
- Future implementation of RNAV departure procedures at MSP;
- Input from the MAC and the Noise Oversight Committee (NOC) on the design of new RNAV procedures;
- The environmental study process;
- Future opportunity to provide public comment on the planned departure procedures at MSP.

Public Workshop Team

The panel was comprised of the following subject matter experts:

- Erik Amend, AGL Regional Administrator, Moderator
- Kristi Regotti, Environmental Specialist
- Sean Fortier, Matt D'Antonio, Robyn Loehndorf, and Brian Schild, Air Traffic Control
- Captain Clifton Sato, Industry Representative
- Michele Ross, MAC

Workshop Summary

The first webinar had approximately 160 attendees. 108 questions or comments were submitted via Zoom and YouTube. The panel answered 40 questions. The second webinar had approximately 100 attendees. 65 questions or comments were submitted via Zoom and YouTube. The panel answered 36 questions. While not all questions were answered, questions answered were representative of the majority of questions received.

Public Comment Summary

The FAA received a total of 58 public comments. The public comments are presented in the Public Comments Summary Table. They are referred to the responses that follow. These categories include air quality, noise, community involvement, extraordinary circumstances, environmental justice, and comments outside the scope of this project. Some comments included multiple categories. The FAA's general responses to these comments are provided in the corresponding sections.

Public Comments Summary Table

Note: Names and addresses have been removed.

Date Comment Submitted	Comment	Section Addressing Comment
August 14, 2024	The imagery on this zoom is incredibly poor. Can't read smaller text because it is so fuzzy. Sent from iPhone 7	Outside of Scope
August 14, 2024	Mpls RNAV I am a resident near a busy urban airport Safety and cost Are discussed Yet not once is noise and air quality are addressed Why? I want to know how loud my life will get now and in the future Noise and air quality are two big free gives to the airline Sent from my iPhone	Noise Air Quality

August 14, 2024	Hi, I am an Edina resident and took time out of my day today to listen to the FAA session on advice of my local city council member. The FAA has not publicly shared information on these flight changes and noise impacts. Instead the FAA and NOC are hosting two webinars which were suppose to provide information and allow community feedback. The presentation does not provide enough detail for residents to appropriately understand and interpret impact as the charts are large, not clear, and not public so residents cannot zoom in to understand impact. Additionally, the first hour was a scripted discussion of questions of no interest to residents. Additionally the questions selected were benign and clearly avoided the tough questions residents were asking such as - how will this impact noise in the Edina community. This approach to informing the public is deceitful, not transparent, and overly cumbersome on the public. This appears to be intentional given the large pushback the last time this was attempted to be implemented due to creating more noise issues in surrounding communities due to spreading out air traffic. I strongly object to the approach that has been taken to informing the public. Additionally, as an Edina resident I object to the additional traffic and flight spread proposed to occur under this new proposal. Unless the FAA and NOC more publicly share this information and allow for real public feedback I believe this approach is also in violation of community feedback promises and guidelines.	Community Involvement Noise
August 15, 2024	My name is. I live and own a home on in south Minneapolis. For reasons unknown to me MAC decided that Airport noise wasn't sufficient enough to warrant putting new windows and doors in my home (before i bought it) even though the homes across the street had new doors and windows put in by Mac. My neighbors across 47 th received new doors and window and neighbors south of my location did as well. I would like to see the decibel level that was recorded by MAC. I also would like to have it retested. I believe you will find there has been a mistake. Ive seen the renderings from MAC stating that the decibel level on my property	Outside Scope

	is below a certain level. I don't agree with this assessment. If you sit on my deck and are in a conversation with someone you need to stop until the plane is farther away. You are unable to hear someone talk next to you. What are my options now? Would MAC reconsider putting doors and windows in my home?	
August 15, 2024	Hello, I am overall in favor of moving forwards with this new solution. However, I am concerned about noise in Richfield. I live in southeast Richfield, and as runway 35 has been utilized for departures frequently the noise has become incredibly annoying. I have been submitting noise complaints on the apps, but there has been no movement. If this change will result in more use of departures southbound off of runway 35 I am concerned. To mediate this concern I would propose 1) A study into the increase of the current sound zone. Right now my house is about one block outside of it, but there are some nights and mornings we get woken up. We recently had a home energy inspection and we have enough insulation in the walls and attic as well as double paned windows that do not leak. The noise is still bad, and it is a sentiment shared by our neighbors. 2) If that isn't possible, some sort of noise control wall or berm would be helpful. There is currently a soundwall along MN 77 but it is just covering the 484/77 interchange. It would be nice to have that expanded if it would help mitigate the noise. I know I live next to an airport, and overall I am fine with it and expect some aircraft noise. However, the past two years as there has been construction on other runways the sound has really been markedly worse than it was. Again, I am fine with intermittent noise but the excessive noise during morning and evening push (mainly caused by the older aircraft) is aggravating. I just ask that those impacts be considered as part of these new changes. Thank you for your consideration,	Noise Proposed Project Outside Scope

August 15, 2024	Great webinar! Good video and slides. Very good SMEs. They did a great job of "technical translation" of a complex topic that the general public does not understand. Thanks much,	Thank you
August 15, 2024	Is anyone going to answer the remaining questions submitted during the seminars that were not read/answered during the live seminar?	Community involvement
August 16, 2024	Hello, how to I see what the final net impact of noise (delta or change from current) this procedure will have on each of the surrounding neighborhoods in terms of DB ? Thank you.	Noise
August 16, 2024	We live in Mendota Heights and we are frequently bombarded by trains of planes taking off not even 20 seconds apart from one another. We bought our house with the understanding that there will be airport traffic but some nights it is truly incredible how loud, low, and often these planes fly over. Just to the south of our community is a heavily industrialized area and is in direct line of the runways. That area should be in the line of fire. The trans international flights particularly bank hard over our houses under 3000 feet rattling our windows. Please be considerate in your instructions to the airport, traffic control and pilots when devising a new system. Thank you.	Outside of Scope
August 16, 2024	As I understand the implementation/improvement- ONLY the planes departing will be affected. This may be more efficient along those routes and may reduce overall noise somewhat. But RNAV procedures will have no effect on the droning effects of arriving aircraft except to make departures swifter and make room for even more arrivals? Incoming noise will continue or increase?	Noise Community Involvement
August 16, 2024	I live near Dodd Rd. and 1st Ave. Airplanes are constantly flying over my home now. They wake me up in the morning and keep me awake at night. I have lived here 34 years and bought a house north of Hwy. 62 to avoid this hassle. What is the city doing to mitigate this? It is very frustrating. Thank you.	Outside of Scope

	Sent from my iPad	
August 18, 2024	I am very concerned with the noise as the planes flying overhead (I am a Mendota Heights resident) are extremely loud and decibal levels seem unsafe to have many planes in an hour - and many hours of day and night filled with planes. I am very concerned with the pollution and feel the toxic nature of jet fuel exhaust is contributing to environmental polutants and negative health effects to the population within the flight paths. After covid - the uptick in planes is causing much concern for health of aging population, noise pollution and enviornmental pollution. Thank you	Outside of Scope
August 19, 2024	I attended the RNAV webinar last week and was disappointed in my ability to ask questions more easily. I felt the webinar was far too technical and did not sufficiently answer the concerns of general neighborhood households affected by departure scenarios. I live at, heading 360, on the northern edge of the Hiawatha Golf Course. I have been active since 2010 in attending meetings, calling the noise hotline often, informing my neighbors, reading reports and following flight tracker mappings. Our neighborhoods want and deserve to have specific answers to issues of: frequency of flights in the bursts of departures; directions (fanning); altitude; noise levels of each type of aircraft; air quality below flight paths; and any other factors that RNAV will affect. Complaints from me and my neighbors to the MAC the past few years have decreased because so many of us have given up. Also, the use of "slightly" quieter engines have been of "some" relief. However, predictions of increased flight departures in the near future are very concerning. So questions I and my neighbors have to the FAA and MAC with the implementation of RNAV going forward are these: WILL THE FAA... 1. provide many sessions informing us and allowing us to continue to ask questions, and teach us how use flight tracker?	Outside of Scope

	2. install more and move current noise monitors to where the new flight paths will be? 3. report with graphs altitudes of flights? Aircraft making immediate turns at take off sacrifice altitude. Bigger the turn, less altitude, more noise close to the airport. 4. offer reports on plane type and cumulative effects of their engine noise potential? 5. by one year of RNAV implementation produce a comprehensive report similar to the 84 page "January 2012 Departures Analysis" and repeat such analysis each year after? 6. every other month report on the factors (plane type, weight, winds and tower cooperation) being used to honor the FAA's promise to provide the highest level of fanning flight paths possible? Fanning = Fairness! I hope these questions will receive the attention they deserve. Thank you.	
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August 20, 2024	MSP 12L 12R inbound flight paths: For decades MSP 12L 12R arrival prioritization has wrongly directed inbound MSP flight paths via VOR right over the most densely populated sections of the city and suburbs at 2800-3000' AGL, MN State Capital, St. Paul, Falcon Heights, Roseville, Columbia Heights. This traffic eventually makes the big turn south and inbound to 12L 12R near the suburb of Robbinsdale. This inbound flight path should instead follow eastbound at higher altitude over the less dense, industrial and highway corridor of Stillwater>Highway 96 > I 694 inbound to MSP 12L 12R. MSP 30L 30R outbound flight paths: For decades MSP 30L 30R outbound prioritization has wrongly directed fully laden, outbound MSP passenger flight paths to make a long, hard banking turn to the north, then continue low and banking right turn over the most densely populated sections of SE MPLS, Roseville, Falcon Heights, St. Paul. This passenger jet traffic struggles to gain altitude in a full throttle banking turn with engines screaming at 2800-3000' AGL. This 30L 30R outbound traffic should instead continue north with a more controlled and straight line departure, up and out flight path, following the I35E / industrial corridor north to HWY 96 / I 694, then turn, rather than screaming engines over the most dense city populations. These low level inbound and outbound flight paths are also disruptive to digital TV signals broadcast from the centralized Vadnais Heights MSP TV towers. Thanks for reviewing my input and thoughts. I have lived here and observed MSP air traffic for over 70 years. Thank You	Outside of Scope
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August 20, 2024	MSP 12L 12R inbound flight paths: For decades MSP 12L 12R arrival prioritization has wrongly directed inbound MSP flight paths via what appears to be a Holmen Field VOR beacon directing traffic right over the most densely populated sections of the City of St Paul and suburbs at 2800-3000' AGL, the MN State Capital, St. Paul, Falcon Heights, Roseville, Columbia Heights. This traffic eventually makes the big turn south and inbound to 12L 12R near the suburb of Robbinsdale. This inbound flight path should instead follow westbound path at higher altitude over the less dense, industrial and highway corridor of Stillwater>Highway 96 > I 694 turning southbound near Robbinsdale, inbound to MSP 12L 12R. MSP 30L 30R outbound flight paths: For decades MSP 30L 30R outbound prioritization has wrongly directed northbound, fully laden,MSP passenger flight paths to make a long, hard banking turn to the north, then continue low and banking right turn over the most densely populated sections of SE MPLS, Roseville, Maplewood, Falcon Heights, St. Paul. These passenger jets struggle to gain altitude in a full throttle banking turn with engines screaming at 2800-3000' AGL. This 30L 30R outbound traffic should instead continue north with a more controlled and straight line departure, up and out flight path, following the I35W / industrial corridor north to HWY 96 / I 694, then turn, rather than turning with a steep bank, screaming engines over the most dense city populations. These low level inbound and outbound flight paths are also disruptive to local digital OTA TV signals broadcast from the centralized Vadnais Heights MSP TV towers. Thanks for reviewing my input and thoughts. I have lived here and observed MSP air traffic for over 70 years. Thank You	Outside of Scope
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August 21, 2024	Dear FAA and NAS Analytics Team, 4N313, I am writing to express my deep concern regarding the excessive airplane noise in our residential area. The constant noise from low-flying aircraft, particularly during early mornings and late evenings, has become a major disturbance for my family and many of our neighbors. It affects our ability to sleep, concentrate, and enjoy our homes. The situation has escalated to the point where it is impacting our overall quality of life. I understand that air traffic is necessary, but I kindly request that steps be taken to mitigate the excessive and intensive noise levels in our neighborhood. Whether it's by adjusting flight paths, altitude, or scheduling. I have watched the two video webinars regarding the departure procedure updates and the future implementation of Area Navigation (RNAV) departure procedures at the Minneapolis-St. Paul International Airport (MSP) I am confident that this presents a perfect opportunity for your team to find a resolution that balances the needs of air travel with the well-being of our community. Thank you for your attention to this matter. I look forward to your prompt response. Sincerely,	Outside of Scope
August 23, 2024	We live in SW Minneapolis. My wife and I are very concerned about the proposed flight pattern change from MSP airport. We already have flight pattern over our neighborhood that affects noise and pollution. We are very strongly opposed to the possible change in flight pattern that concentrates flights over South Minneapolis metro area. This would severely affect the neighborhood and affect the quality of life. The flight pattern in a Metropolitan area should be as widely distributed as possible as to avoid concentrating the negative on any one area and the people there. Please consider this letter as our strong opposition to the FAAs plans to concentrate flight pattern over the South Metro area. Thank you.	Community involvement

August 26, 2024	Hello, I see on your website the new MSP project boards. https://www.faa.gov/air_traffic/community_engagement/msp/project_boards.pdf do you have current state boards as well? Thank you,	Community Involvement
August 29, 2024	It is commendable that the RNAV planning group has listened and responded to the concerns and suggestions to continue the status quo offered by the Noise Oversight Committee and others in the area impacted by airport operations. However the public meeting on the new RNAV system held by the FAA made it clear that this summer more arrivals have been diverted or dispersed from the south parallel runway. If it is possible to divert arrivals to other runways during construction, wouldn't the added sophistication and precision of the RNAV system make it possible to divert arrivals to other runways more often in order to disperse the noise from landing aircraft more equitably? I would appreciate an answer either directly or in the response to comments in this process. Thank you.	Community Involvement
August 30, 2024	There has got to be a better way to fan out departures than what is currently done. We sometimes get a steady stream of departures flying either right over our neighborhood, or close enough that we experience a lot of noise. We're about 8 miles from the airport, so it seems like the planes could be fanned out more by this point to spread the noise around better. In addition, we are told that the flight paths try to stay over highways versus residential areas. This does not seem to be happening, since we live near 494 and from what I observe, the planes typically fly over homes versus the highway when they are near our area. Please try to spread/fan departure flight paths around more so that the noise is not so concentrated on certain areas. Thank you Sent from my iPhone	Community Involvement

September 1, 2024	COMMENT #1: 12L DEPARTURES ARE CLAIMED TO BE USING DISPERSION WHEN THAT IS NOT THE CASE. PLEASE INCREASE 90 AND 120-DEGREE INITIAL ASSIGNMENTS TO ACHIEVE "PREVENTION OF CONCENTRATION" GOAL. The current method of operation (not to include this summer's 12L runway closure) has a concentration of the 105-degree initial heading assignment. The issue is that heading directs flights over residential parcels located within the Eagan-Mendota Heights (EMH) Corridor. Starting at just 1.5 miles from runway end these neighborhoods receive the loudest of takeoff noise as a result of flights as low as 1000 ft overhead, producing 80-90 dB noise events. This level of noise is beyond annoyance level and within negative health consequence territory. We are not asking for elimination of overflights in this area, but a more equitable balance of heading usage which would reduce the amount of same track overflights. This also benefits the neighborhoods located beyond the eastern EMH boundary affected by the 105-degree heading. This is as an ideal opportunity to take advantage of GPS based RNAV and PBN which offers flight path flexibility, automation, and can be leveraged to achieve residential noise reduction by directing more departures over noise compatible land use areas within the Corridor. It should be noted there's a force multiplier involved which is 12R is only used for departures by "operational necessity", therefore 12L gets up to triple the amount of departures in a south flow. Also noteworthy is nearly all 12R departures overfly the industrial park within the EMH Corridor since they generally maintain runway heading. During the webinars it was noted the following statements and themes were made: "departure dispersion over communities", "avoiding residential and to overfly open land and roadways", "dispersal of initial headings", "multiple headings north and south", and "evenly distribute". These statements would only hold true if the 90-degree heading and additional 120-degree headings were illustrated to be used in the project boards presented. Progress in this area has the added benefit of achieving the FAA's stated preliminary RNAV goal of "Utilizing departure procedures over the 12L and 12R industrial park" and "moving flight paths away from noise-sensitive areas." Alternatively, the 105 heading could be modified to be a more gradual arc and/or 10 additional seconds of runway heading prior to engaging the heading (similar to the RWY 17 river corridor where	Community Involvement
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	reduced efficiency is not an issue). The lateral distance between the current typical concentration compared to a concentration over industrial/commercial zoned areas is not very far, perhaps a couple thousand feet. COMMENT #2: EAGAN-MENDOTA HEIGHTS CORRIDOR CONTAINS RESIDENTIAL LAND USE There seems to be a disconnect regarding the composition of the Eagan-Mendota Heights Corridor. It is not entirely comprised of noise-compatible land use. The north-east quadrant is comprised of residential land use parcels (all located in Mendota Heights). COMMENT #3: FEB 6TH, 2024 FAA WORKGROUP RESPONSE TO NOC RNAV SUB-COMMITTEE Please re-evaluate and incorporate more 120-degree initial heading assignments for 12L departures, especially during low and mid-demand periods (i.e. engage Crossing-in-the-Corridor noise abatement procedure methodology for 12L). The predominant separation technique used during high demand (and medium demand) off 12L has not been divergence, it is nose-to-tail separation of 3 NM which allows aircraft to be departed once every 60 seconds. Current methodology has the 105 initial heading as the busiest heading, not the 120 as stated. COMMENT #4: ERROR ON PROJECT BOARD #7 REGARDING CROSSING-IN-THE-CORRIDOR Project Board #7 says using the EMH Corridor “maintains” the Crossing-in-the-Corridor noise abatement procedure. Simply using the EMH Corridor does not equate to using the Crossing Procedure. The Crossing Procedure is in effect when 12L departures maintain a 120 to 118 degree heading which directs aircraft over noise compatible parcels within the corridor. The residents living in the EMH Corridor fully endorse increased usage of the Crossing Procedure and request the use of RNAV technology since non-simultaneous conditions often exist and 12R is only used for departures when operationally necessary. COMMENT #5: DISPROPORTIONATE USE OF THE 105 INITIAL HEADING FOR 12L DEPARTURE CONTRADICTS THE STATED GOAL OF DISPERSION AND NON-CONCENTRATION OVER RESIDENTIAL LAND USE AREAS. In the diagrams presented it is unclear if there will be increased usage of the 120-degree heading (which directs aircraft over the very land use the FAA, NOC,	
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	and MAC is targeting: open land, roadway, and commercial/industrial parcels). This compatible land composition continues beyond the eastern EMH Corridor boundary which is why departures maintaining runway heading is the least impactful for close-in neighborhoods. COMMENT #6: PLEASE PRIORITIZE AN INITIAL HEADING OF 120-DEGREES FOR MILITARY AIRCRAFT DEPARTING 12L The loudest and lowest flying aircraft are military aircraft such as C-130Js. Since noise is reduced as aircraft climb, maintaining runway heading for as long as possible would direct the aircraft along a path over noise-compatible land areas before flying over homes.	
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September 1, 2024	Hello, I am writing to help appease my constant frustration about the airplane noise over my house in Cedar Grove in Eagan. I am only now finding more information on the airport related website and will continue reading and updating my self on the current situation and changing plans for air traffic. As I look into this, I am sure I will find that you are fielding many concerns from neighbors. I have talked with them and the overall consensus is that the powers that control the air traffic do not care about the surrounding neighborhoods. I believe, and hope that is not true since there is information posted and meetings for discussion. I wish I had known about this in August when the meetings occurred. Quantifying the times and frequency of my experience is silly and probably useless as the schedule is not a secret. Please please please tell me there is hope of change and the new runway work will result in planes coming and going in a way that is not so constant here. I am surrounded by residential booming car radios, Halloween monsters (starting now), Cedar Ave. and 35E auto noise. This is not healthy and I can't do much about it but talk with neighbors and hope for the best. In the mean time it is very stressful. I have lived here over 20 years and the problems have gotten worse, especially the planes. Though the City of Eagan promotes being a healthy community I am not feeling it in this regard. Please let me know how I can be a voice for my neighbors and stay informed. Thank you for any hope, help or information. Sincerely, your neighbor for now,	Outside of Scope
September 3, 2024	I've lived here for almost 11 years. The noise from planes is incredibly loud, to the point of needing to sleep with earplugs at night. They fly right over my house, sometimes as low as 600ft AGL. Additionally, some of the planes make a whale mating type of sound when they come in for landing. I've read it's only some airbus planes that do it, but according to ads-b data from my receiver, it's definitely Boeing planes also. I'm considering replacing my windows with triple pane glass and doing some soundproofing in my attic... At a cost of over \$100k.	Outside of Scope

	The existing noise area that was compensated for noise reduction work in their homes ends like 1/2 mile from here. And that money is exhausted anyway from what I am told.	
September 3, 2024	We live on In in eagan and planes come in for landing every 10 minutes . My understanding was that it's temporary but it's been months . Sent from AOL on Android	Outside of Scope
September 3, 2024	The airplane noise over North River Hills has been nearly constant at times, lately. This is unacceptable.	Outside of Scope
September 3, 2024	Can hear the planes every evening Even currently and it is 9:06pm Crazy Sent from my iPhone	Outside of Scope
September 5, 2024	Good morning, It had been stated that RNAV departure flights will initially fan out but in time will become concentrated. When is that planned to happen? It would be great to specifically see a map of planned Richfield flights!	Community Involvement

September 9, 2024	Greetings, I am writing to state my concerns about the frequent and disturbing aircraft noise over my house. I live in the Cedar Grove area of Eagan, on Carnelian Lane, east of Rahn Rd. Since 7:30 p.m. Sept. 8 'till after midnight, Monday, Sept 9. I've been hearing a steady stream of planes. This is not unusual. The times range from 6 a.m., and early evening around dinner time (I have counted over 20 planes within 1-2 minutes apart, till I got tired of paying so much attention to them) and again as late as midnight and sometimes in the wee hours of the night. I am woken up in the middle of the night and it is hard to hear a normal conversation in the backyard. Do you want to live in this kind of environment? I have visited the FAA/NOC websites and listened to the videos explaining the new plans and details about runway rehab and new satellite equipment. I listened to the questions and comments from the professionals explaining the situations. This has been in the works a long time, though I was not aware until recently when the plane noise has become especially aggravating and annoying. It has gotten much worse over the last year, especially this summer. I am not encouraged by the news or information on the websites and it sounds like the noise problem is understood but also not addressed except to explain details about noise science, airport needs. What I fear I am learning is that it will get worse, not better and no one really cares to change things to make the noise problem better for us on the ground. Maybe new planes will be quieter. When? Maybe after I have to move because I don't want to live here anymore. I am disappointed and frustrated by this ongoing increasing annoyance. I appreciate the efforts of the administration to address the noise problems but I am extremely distrusting and disappointed by the lack of commitment to make a change for residents. Thank you for reading this from me, if you have. I wish I felt this message would matter. I hope it does, along with others you have no doubt received. It is now 12:32 and planes are still flying over, no breaks. Would you want to live with this? Sincerely, Eagan resident	Outside of Scope
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Monday, September 9, 2024 3:30 PM	Hello, As a family impacted by airport noise, I am writing to give feedback on the proposed FAA Flight Operation Procedures coming to the Mpls/St. Paul airport. My hope is that moving forward, with the new system in place, MSP traffic patterns are dispersed as much as possible and mimic what they are today. It is important to prevent concentration of noise. Thank you for understanding the real world impact of these technology upgrades. It's a huge quality of life issue for those of us on the ground. Thank you, Minneapolis, MN	Community Involvement
September 9, 2024	Dear decision makers, I have lived at MN for 28 years. The noise level from the planes departing in a NW direction which then turn south over my house is terrible! This noise level is so high and frequent it causes anxiety and sleeplessness to residents. This overused departure path concentration also passes right over our neighborhood elementary school, which negatively impacts the students' ability to concentrate and learn. For too long my neighborhood has been ignored when it comes to noise mediation. Unfortunately, the louder voices from other areas have been listened to more, even though their noise level is less! I beg you to more evenly distribute this traffic so my neighborhood can get some relief! Please!!!! Thank you for listening! Sincerely,	Outside of Scope

September 9, 2024	I am writing from the 13th Ward in Minneapolis to express my sincere hopes that the FAA will take into consideration the comments from members of the local community, and our elected officials, in determining the final flight plan model. While I appreciate that a single flight path area (such as following Hwy 62) may be simpler to manage, and thus possibly safer, but...given the increasing number of flights in and out of MSP today, it seems to put an undue burden on those of us who now (after carefully considering home location and airport noise paths) have settled into our forever homes. Perhaps narrowing the dispersal path only slightly could provide a compromise? Too narrow a path is doing a disservice to those of us who investigated locations and settled on what we thought would be tolerable while maintaining easy access to the airport we truly appreciate having in our backyards. The time is likely past for a move out of the current airport, as other cities have done. Surely there must be some consideration for the local populace when we have a truly urban airport? We already pay a premium to fly most places, given Delta's near monopoly on our airport, but we should not have to incur further injury by significant increases in noise while in our homes. The number of flights is already increasing without this change - I cannot imagine what further narrowing of this plan will be like. Please, please, please consider all the input you have gotten and try to maintain as much dispersal of flights as possible. (And perhaps also commit to using the quieter new planes for what increases we must accept.) Thank you!!	Community Involvement
September 9, 2024	Arrival pickup at terminal 1 is a disaster! Lack of access to appropriate pickup needs to be addressed immediately. Sent from my iPhone	Out of Scope
September 9, 2024	A lot of airplane noise at my location: Seems like the Airbus A320 is particularly noisy. Please reply and advise, Thank you, Sent from my iPhone	Out of Scope

September 9, 2024	If you lived under the Super Highway of planes landing one after another, you would be asking this question, too. Even though they aren't as loud as planes taking off, it is like torture to sit on our patio and try to enjoy yourself when the noise never really stops. You can hear the next incoming plane as soon as the latest one has gone by overhead (literally). Please try to spread out the landing Highway into at least a few approaches . It truly ruins any activity I try to have in my backyard	Community Involvement
September 9, 2024	Why is there an Eagan Mendota Heights corridor if, as was stated many times in the meeting, the departure flights are to be dispersed? Sending the airplanes through this corridor is the opposite of dispersed. Correct?	Out of Scope
September 9, 2024	Air traffic over: Another Delta Airbus A320, very loud Sent from my iPhone	Out of Scope
September 9, 2024	Way too much outbound traffic over northern Mendota Heights!	Out of Scope
September 10, 2024	In the decades I have the lived here aircraft noise has done nothing but escalate. The noise is constant and unbearable. I have never had a response to any of my complaints addressed to MAC. If I could afford it I would move. The only reason I would leave my beautiful neighborhood would be to escape the your constant air assaults which have rendered my home uninhabitable.	Out of Scope
September 10, 2024	To whom it may concern - RNAV was previously implemented for arrivals at MSP. This has resulted in concentrated flight paths over my home on days where arrivals are coming from the NW. Departures, although louder, spread out more and so are not as significant of a concentrated impact. RNAV for departures should not expose properties that already bear a higher burden of the noise pollution from arrivals. Please spread it out. Thank you,	Community Involvement

September 10, 2024	I am a resident of SW Mpls and have been for my entire life. As such, I have lived with airplane noise which has been sometimes tolerable and sometimes not. I urge you to spread the air traffic out over the twin cities, so that no home or neighborhood is affected by the changes in new systems more than others. Thank you,	Community Involvement
September 12, 2024	I'm not sure what the plan is but here is what I live with. The noise from the air traffic over my roof is so loud I get alerts on my watch notifying me that it's a health hazard to my hearing. Where would I go to avoid it? Typically I'm awoken by air traffic every day before I'm ready to awake. What happened to the control of the hours of flights? Typically I'm bombarded by continuous traffic every evening when I sit down to eat dinner. It is so loud I can't talk on the phone or watch tv due to the volume. When the perfect weather allows me to have my two windows open to have fresh air it comes with more air traffic noise. I can no longer enjoy my outdoor deck due to the loudness of the traffic. I fact I heard what sounded like supersonic jets this week. It was so much louder and for an extended time over a few days. I feel concern every time I'm outside daily walking at all the crisscrossing airplanes overhead. I'd have to say it ruined living on the top floor of my condo building due to the daily battering noise of air traffic. To think I left living on 54th and 11 avenue to be away from the noise area to move where I'd hear less traffic has become an even worse outcome due to the increase in traffic that find myself now stuck with at turning 80 next year. I should have some type of financial compensation to enable me to relocate.	Out of Scope

September 12, 2024	To whom it may concern: The Minneapolis-St. Paul International Airport sits on land that was first acquired and developed in 1914. The population of the metro area was around 800K in 1914, but has grown to over 4 million. Yet, the airport sits on the same land, while the metro area has grown around it. The Metropolitan Airport Commission (MAC) owns MSP airport. MAC is a wholly-owned subsidiary of the State of Minnesota, but reports only to the governor (and FAA), as MAC is not funded by the state, only through user fees and rents. Thus, they operate independent of the general public since there are no elected officials. The general public has no input on the direction of the MSP airport, which allows MAC to act as a proxy for FAA initiatives. According to the MAC website, "the legislated purpose of the MAC is to promote efficient, safe, and economical air commerce, develop the full potential of the area as an aviation center, and minimize the environmental impact from air transportation and the public's exposure to noise and safety hazards around its airports." MAC (and FAA) have missed/dismissed opportunities to act upon their mission statement. In the early 90's, instead of relocating the airport to a less populated area, such as Chicago, Atlanta and Denver have done, MAC doubled-down and increased the length and number of runways to sustain more air traffic. Approximately 10 years ago, MAC, in partnership with the FAA, was ready to implement an RNAV network, only to be thwarted by a groundswell of public rebuke which halted the process. The general public does not want a "highway in the sky", nor do they want more aircraft flying through the metro area. Using an automated departure system will create "sky highways" with airplanes slotted to routinely follow the same path, creating additional noise and stress on areas already impacted by the growing air traffic. Additionally, MAC and FAA have jointly failed to anticipate the growth in commercial air freight shipments. This alone accounts for over 20% of daily flights out of MSP, and continues to increase. MAC and FAA should develop a plan to relocate commercial air freight carriers outside the MSP metro area; this would greatly reduce air traffic noise.	Community Involvement
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	Overall, the FAA is not strident enough in challenging aircraft manufacturers to develop quieter airplanes, and pushing airlines to modify existing airplanes to lower decibel levels. Noise pollution is real and insidious, just like air and water pollution. The FAA needs to operate more like the EPA, with a goal of setting standards that will mitigate and/or eliminate noise pollution in the future. Thank you,	
September 12, 2024	Dear FAA and NAS Analytics Team, I am writing to express my deep concern regarding the excessive airplane noise in our residential area. The constant noise from low-flying aircraft, particularly during early mornings and late evenings, has become a major disturbance for my family and many of our neighbors. It affects our ability to sleep, concentrate, and enjoy our homes. The situation has escalated to the point where it is impacting our overall quality of life. I understand that air traffic is necessary, but I kindly request that steps be taken to mitigate the excessive and intensive noise levels in our neighborhood. Whether it's by adjusting flight paths, altitude, or scheduling. I have watched the two video webinars regarding the departure procedure updates and the future implementation of Area Navigation (RNAV) departure procedures at the Minneapolis-St. Paul International Airport (MSP) I am confident that this presents a perfect opportunity for your team to find a resolution that balances the needs of air travel with the well-being of our community. Thank you for your attention to this matter. I look forward to your prompt response.	Out of Scope
September 12, 2024	Thank you for the synopsis of the FAA workshops. I want to rephrase my question submitted on Sept 5, 2024. Will RNAV departure headings initially disperse (partial RNAV) but later (2026, 2027, etc.) become full RNAV? Trust is lacking! The purple swish area that shows west departures off	Community Involvement

	30L is so intense that it is difficult to see true flight paths. It would be informative to see the purple swish with highways, exact streets visible.	
September 13, 2024	Letter from City of Apple Valley (letter attached to report)	Community Involvement
September 13, 2024	City of Minneapolis (letter attached to report)	Community Involvement Extraordinary Circumstances Environmental Justice
September 13, 2024	Hello! I watched the first webinar August 14th. What follows is information about myself and comments regarding airline noise from 2022-now and information from the webinar. I moved to my 1932 house at. I am about 3 miles from the south parallel runway between 60th street and highway 62. Note- a tiny cute house in south Minneapolis, closer to the airport than people speaking up in pricier neighborhoods in Edina or on Lake Harriet. I am a semi-retired public health RN and this home was to be somewhat transitional since I had downsized from a much larger home in Roseville, MN after my children moved out. I unfortunately, did not have the best realtor and have multiple regrets with this home but I do take responsibility for not doing enough due diligence. I knew the Minneapolis airport was nearby, but I was not familiar with flight patterns and in early 2022 when touring the home, during Covid, the airline noise was not too bad. In 2023 the airline noise greatly increased and now in 2024 starting in the spring the noise has been unbearable with some of the runways closed. When the noise became intolerable in 2023, I finally started looking into what was going on. I did not even know (realtor hadn't mentioned) that my house had been treated for "noise mitigation" in 2007. It is impossible to entertain friends or family outside with planes going overhead every minute. You literally can not hear the person speak that is right across from you. It really affects quality of life for events like these or even just to	Noise Out of Scope

	be outside gardening and yard care. Even going inside and shutting the windows, the TV has to be turned up to be able to watch a movie. Also, for many near the airport, including myself, it is simply not affordable to have to use the air conditioning and shut the house up as much as I have had to do recently because of increased airline routes and noise. I did not become aware of MACNOMS website, until last year and wasn't aware of the complaint procedure until this year. I have utilized the website to log complaints. I(WHEN IT IS WORKING- it is often glitchy)I could be on this website all day filing complaints when the wind is from the north and west. Just because people aren't submitting complaints, does not mean that the noise isn't unbearable. Some people don't have the time and are not aware of the website, like I was. From MACNOMS I can see how low the planes are flying over my house, and all the airplane info, etc. They often follow the pattern of taking off from the south parallel runway and make a sharp turn to head west over my house, then make further turns further out to go to the west or east coasts etc. It tends to be quieter when they are closer to highway 62 or further north over Diamond Lake. I think the FAA should know that some of the loudest planes are from Delta. 9 times out of 10 when they are super noisy, I look up at sure enough I can see the Delta Insignia underneath the plane. There were comments in the public workshop videos that noise mitigation in the future would include replacing these planes with quieter ones. How soon can this happen? How will the \$500 million loss that Delta suffered from the CROWDSTRIKE OUTAGE affect ongoing noise mitigation and replacing environmentally poor airplanes? I have been in touch with a representative from the airport commission and still hope to meet with her. I have been in touch with my city council woman for district 11- Diamond Lake. Although I am glad for some of the mitigation done- bath fan, attic insulation, new windows, furnace, I am woken up on a regular basis starting around 5 am with	
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	windows closed, over head fan and standing fan on, air filter on high, white noise app on near my pillow and ear plugs in. I question the choice of windows, as two of my living room window seals have broken this year and one window latch is broken as well. If they were not installed correctly, I would imagine, this affects the full sound proofing benefits. I would like the FAA to note that Delta as well as Sun Country and many other airlines have also added multiple routes since 2023 and this has greatly increased the noise as well. In the 90's MSP airport had the opportunity to move to the fringes of Dakota county but instead noise mitigation was agreed upon. The airport is in a densely populated area. My house was built in 1932 as I said previously. If the MSP airport wants to continue to be a good neighbor that more needs to be done about noise mitigation and it needs to be ONGOING for the neighborhoods surrounding the airport with the highest traffic. Due to wind patterns, I understand that planes will fly tend to fly north and west more often. I heard on the speakers say on the video that the patterns would not change compared to last year because of RNAV (construction and being down one runway not withstanding). I will be following the news closely on this in the next couple years; I will be in touch with the NOC and the MAC and others do get more information and to get more involved. The noise from the airplanes is a huge environmental safety issue due to the lost sleep, increased stress, and anxiety noise causes. I would bet the decibel level, if measured even in my house would not be considered healthy. I of course realize that air traffic safety is of primary concern as stated many times in the video. BUT, it is not environmentally safe (noise) to have so many increased routes from Delta and multiple other airlines or safe from an air traffic control perspective (potential for crashes over densely populated neighborhoods. I hope the FAA looks at more than just air traffic control safety when making decisions for MSP airports, but will focus on its neighbors, many who were here before the airport. Please do not just look at \$ income potential	
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	from airlines, CEO's, and city movers and shakers. Thank you for your time. Sincerely,	
September 14, 2024	The airline noise over Apple Valley is excessive and should be reduced to a reasonable level as it was before the pandemic. Thanks,	Outside of Scope
September 14, 2024	My wife and I have a residence at since February 1987. We purchased this home knowing noise from MSP was minimal. Hearing a north south runway was going to be constructed, we took the time to find out how the runway 17 departures would affect our quality of life. We were told the west departures would follow the river to allow aircraft to reach a higher altitude before turning southwest. East departures were to follow Highway 77. This original plan is not followed on a consistent basis. I'm a disabled vet with severe insomnia and chronic fatigue syndrome and this constant aircraft noise, at times, makes living in our home difficult for me. My wife and I would appreciate that the original plan for runway 17 departures be followed on a consistent basis. Thank you,	Outside of Scope
September 15, 2024	Dear FAA, Thank you for providing virtual presentations on RNAV implementation at MSP. I am a resident of Mendota Heights, living in the residential area of the Eagan-Mendota Heights corridor. Specific statements were made during the presentations that concerned me about the Eagan-Mendota Heights corridor. It appears that the RNAV team was unaware that the Eagan-Mendota Heights corridor contains residential areas. Further, it also appears the RNAV team could be unaware that the majority of departing air traffic off of 12L is routed over the residential area of the Eagan-Mendota Heights corridor, rather than the industrial area. This land is not noise-compatible. I'd like for the FAA to acknowledge that the Eagan-Mendota Heights corridor is not an exclusively industrial area. Please publicly correct the statements that Eagan-Mendota Heights corridor is a residential space with industrial space. I understand the new RNAV technology implements precision based navigation. It seems that the deployment of this new technology may not be fully	Community Involvement

	utilizing the features and advancements of this technology. I believe the FAA has an obligation to improve the life of MSP's residential neighbors in Mendota Heights. There is a wonderful opportunity that the FAA has to "precisely" and safely direct current traffic over the industrial part of Mendota Heights, which is west of Hwy 55. I was told by Kurt Mara that RNAV makes this possible. I'd like the FAA to make use of the new RNAV technology for good and design 12L departure procedures using the industrial space of the Eagan-Mendota Heights corridor, which is physically located west of Highway 55. The technology and the industrial area makes this possible! We all win when we all win. Warmly,	
September 15, 2024	I live on. in Bloomington. When aircraft are taking off to the south on runway 17/35 and turn in a northwest direction, they sometimes fly over or near my house. According to "Flightradar 24"., the planes are climbing and are around 3000 feet altitude. With the house closed up and the air conditioner going the noise isn't too bad. Other times with the windows open, the noise can be disruptive. Thanks	Outside of Scope
September 15, 2024	Dear FAA, We are residents of the Southwest Minneapolis Neighborhood. We are concerned by the planned changes to the departure and landing patterns at the airport. We are concerned about the noise changes that might result from this. We are beyond the noise mitigation area, so the changes in the noise that will come with the proposed concentrated paths for airplanes would directly affect us and our neighborhood. We are mostly concerned about plans to concentrate the departure and landing patterns with the new upcoming changes. This would concentrate the noise pollution in certain neighborhoods, instead of distributing it in a more wide "fanned out" pattern. This would negatively affect the quality of life in these neighborhoods and would concentrate engine pollution below these concentrated paths. All of this would negatively affect health and quality of life. We do understand that changes to technology are needed and that safety is of paramount importance. But safety was a priority previously, and we would have a	Community Involvement Noise

	hard time believing that the FAA compromised safety previously when the plane departures were fanned out. The new technology being installed would not require the concentrated paths for landing and takeoffs, and would allow the planes to be fanned out in a wider area. This "fanning out" pattern should be the default pattern for a busy airport located in a metropolitan community to minimize the concentration of the impact on any one area. Thank you for your attention to this matter.	
September 15, 2024	When we moved to Apple Valley it was a "Sleeper Community". People got a good night sleep and were productive at work and students did well in school. There was no airplane noise at all. Now it seems like all airplanes are routed south to go over our community. Lately it has been extremely problematic since two runways are closed for construction. There are only four way to take off and four ways to land, yet all are going south. Last noise meeting reported: - 40% of the departing planes go south off of runway 17/35 - 40% of the arrivals come over Apple Valley on runway 17/35 - Many of the planes departing on other runways also turn and go over Apple Valley. Our homes were not designed for this level of noise. The City of Apple Valley doesn't have any space that is compatible with airplane noise. More compatible areas are the Minnesota and Mississippi river valleys (no people live there), warehouse and manufacturing areas. The noise is unpredictable. - At times there are airplanes landing every 1-2 minutes - We are woken up in the middle of the night .. some times several times on the same night - Passenger planes are departing earlier and earlier in the "morning" and later and later in the night. - We hear loud noises and check Flighttracker only to find that planes have been too close, a freight plane landing too fast and almost landing on top of a Delta plane or there have been last minute abort of landing, all causing very loud noise. Abortion of landing on 17/35 interferes with the traffic on the parrallel runways. The communication about RNAV has been confusing. It is not clear how it is going to impact noise or air pollution. One presentation said the noise would be the same as today. Another presentation it said it would be	Air Quality Noise

	the same as today too, but it was a different day and a day with very different noise level. One Apple Valley resident was told the noise level would be the same as April 2024 and another that it was the same as February and March 2024.	
September 15, 2024	MSP has severely polluted the airspace over my home since March 2015. Any proposal that does not decrease the noise pollution over my home is in opposition to protecting my health and wellbeing.	Outside of Scope
September 18, 2024	Letter from City of Edina, MN	Community Involvement
September 19, 2024	I hope that when renovation of runways is complete and the new flight management system is instituted it will not mimic the flight patterns of summer 2024. South Minneapolis lakes area has been tormented with noise and emissions from flights. I would argue that the flights are louder than years previously reported but also as important is the frequency of noise/flights. I would like to know if this is the norm?	Community Involvement
September 20, 2024	I don't think you gave ample opportunity to allow actual people who live in the community to have a say in this decision. I think an extension is warranted prior to making any changes. Also, I think the groups you have corresponded with have a lot of conflict of interest. You need to have people who actually live in the neighborhoods. Seems like correspondence was narrow and more of a formality to say you spoke with and were transparent but that isn't actually the case. No one in my neighborhood was involved in any decision making! Also, the decision is premature because the environmental report wasn't even out before you came to your conclusions. Please extend the time frame and obtain more reach. You keep saying safety is the number one priority but no one has discussed with me or my neighbors how the planes noise and pollution impact every aspect of our lives. No doctors or health studies were obtained. Also, the priorities presented mention economic factors. There are lots of people who work from home post COVID. I feel like you haven't considered how this impacts their jobs and economics. I think the decisions made were based on limited sources, limited research, and the data allowed for considered was self serving and not a representation of the actual facts.	Community Involvement Noise

	When you said all the sources wanted to keep the flight patterns the same... that isn't true... no one in my neighborhood wants that!! This is an opportunity for change and I don't feel like you have obtained the information from the actual people who live in the affected areas. Lastly, with all the data and information and technology, the noise mitigation for homes should be completed before you make system and routing changes. In today's world, the noise levels should be calculated and noise mitigation provided before it is impacting the residence. Currently, It takes a year to collect and post the data/complete reports, and another year to decide who qualifies and additional time to install the noise mitigation. People are needlessly suffering for years before action is completed. Please accept this late submission due to IT/computer issues and strenuous circumstances. In addition I didn't not receive a response to an earlier email I submitted with questions. I was wondering if the questions and comments submitted during the presentations were going to be considered in the decision making process. Not all of my questions and/or comments were formally addressed during the presentation but wanted to make sure you received them.	
October 16, 2024	Why doesn't aircraft fly over the houses which have been outfitted with noise mitigation? Instead they fly over houses on north take offs that have not been allotted with noise mitigation. If you have an opportunity to correct this with the new system... only seems logical to do the right thing. (It's like providing one person with ear protection for lawn mowing and then having the second person, without the ear protection, mow the lawn.)	Community Involvement

Air Quality

Air quality is the measure of the condition of the air expressed in terms of ambient pollutant concentrations and their temporal and spatial distribution. Air quality regulations in the United States are based on concerns that high concentrations of air pollutants can harm human health, especially for children, the elderly, and people with compromised health conditions, as well as adversely affect public welfare by damage to crops, vegetation, buildings, and other property.

The study area for air quality should be defined as the entire geographic area that could be either directly or indirectly affected by the proposed project. For example, air quality impacts from construction may be limited to a project site and immediate adjacent areas. However, air quality impacts from operations (e.g., aircraft flight) may extend beyond a project site and immediately adjacent areas and extend vertically up to the mixing height. Dispersion of air pollutants can be affected by meteorology, topography, the type of pollutant, and other factors. In addition, a federal action can lead to air pollutant emissions that may occur at some distance from a project site, such as exhaust from project-generated vehicle traffic on the surrounding road network.

The General Conformity Rule for air quality establishes the procedures and criteria for determining whether certain federal actions conform to state or Federal (United States Environmental Protection Agency [EPA]) air quality implementation plans. Hence, the General Conformity Rule is only considered when a federal action is proposed to occur in an area designated by the EPA as a nonattainment or maintenance area for specific air pollutants. To determine whether conformity requirements apply to a proposed action, the FAA considers the following:

- The nonattainment or maintenance status of the area
- Emissions budget
- Exemptions from conformity
- FAA-specific activities that are presumed to conform (72 *Federal Register* 41565–41580 [July 30, 2007])
- Response to emergency or disaster

According to FAA Order 1050.1F, Exhibit 4-1, an emissions impact is significant if “[t]he action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards, as established by the EPA under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

Under Section 176(c)(4) of the Clean Air Act (42 U.S.C. § 7506(c)) and EPA regulations at 40 CFR Parts 51 and 93 (commonly referred to as the General Conformity Rule), the FAA must ensure that its activities do not cause or contribute to new violations of the National Ambient Air Quality Standards, worsen existing violations of the National Ambient Air Quality Standards, or delay attainment of the National Ambient Air Quality Standards. When developing the General Conformity Rule, the EPA recognized that many actions conducted by federal agencies do not result in substantial increases in air pollutant emissions in nonattainment and maintenance areas. Therefore, the EPA established threshold levels (also referred to as de minimis levels) for emissions of each of the criteria pollutants. When the sum of the increases from the direct and indirect emissions of a project would be less than the de minimis levels, a project would not require a general conformity determination.

The General Conformity Rule also allows federal agencies to develop a list of actions that are

presumed to conform to a State Implementation Plan. This can be done by clearly demonstrating that the total direct and indirect emissions from these types of activities would not cause or contribute to any new violation of any standard in any area; interfere with provisions in the applicable State Implementation Plan for maintenance of any standard; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area, including emission levels specified in the applicable State Implementation Plan. Alternatively, federal agencies can establish actions that are presumed to conform by providing documentation that emissions from these types of actions are below the applicable de minimis levels.

The FAA published a list of *Presumed to Conform* activities in the Federal Register on July 30, 2007. That list exempts the conformity determination requirement from all “Air Traffic Control Activities and Adopting Approach, Departure and Enroute Procedures for Air Operations.” The exemption does not only apply above the “mixing height” (generally 3,000 feet above ground level [AGL]). The Federal Register notice explains that longstanding research indicates that any operations above 1,500 feet AGL have “little if any effect on emissions and ground concentrations.” Operations at that low altitude are tightly constrained by any number of factors. “Accordingly, air traffic actions below the mixing height are also presumed to conform when modifications to routes and procedures are designed to enhance operational efficiency, increase fuel efficiency, or reduce community noise impacts by means of thrust reductions.”

The FAA prepared the appropriate level of environmental analysis for the Action in accordance with the National Environmental Policy Act (NEPA) under the Council on Environmental Quality Regulations and FAA Order 1050.1F. The air quality evaluation in Section 4.2.1 of the final environmental review document discusses the existing air quality conditions and possible impacts from the Action within the study area. Typically, significant air quality impacts would be identified if an action would result in the exceedance of one or more of the National Ambient Air Quality Standards, established by the EPA, for any time period analyzed. According to FAA Order 1050.1F, Exhibit 4-1, an emissions impact is significant if “[t]he action would cause pollutant concentrations to exceed one or more of the NAAQS, as established by the EPA under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

The FAA determined that project-related aircraft emissions released into the atmosphere below the “mixing height” (generally 3,000 feet AGL) can be presumed to conform when modifications to routes and procedures are designed to enhance operational efficiency (i.e., to reduce delay), increase fuel efficiency, or reduce community noise impacts by means of engine thrust reductions.

More specifically, the Proposed Action would not affect the number or type of aircraft operations in the study area, or the time aircraft spend below the mixing height. The Proposed Action does not increase flight time or route lengths. The majority of the changes that are part of the Proposed Action are at or above 3,000 feet AGL. As a result, it would not change the total emissions of air pollutants below the mixing height. The Action is presumed to conform because the changes are expected to enhance operational efficiency.

Noise

Sound is a physical phenomenon consisting of pressure fluctuations that travel through a medium, such as air, and are sensed by the human ear. Noise is considered unwanted sound that can disturb routine activities (e.g., sleep, conversation, student learning) and can cause annoyance. Aviation noise primarily results from the operation of fixed and rotary wing aircraft, such as

departures, arrivals, overflights, taxiing, and engine run-ups. Noise is often the predominant aviation environmental concern of the public.

The noise evaluation in Section 4.2.11 of the final environmental review outlines noise and land use compatibility criteria applicable to the evaluation of noise impacts. The compatibility of existing and planned land uses with aviation actions is usually determined in relation to the level of aircraft noise by comparing the DNL values to the land use compatibility guidelines in 14 CFR, Part 150. DNL is the FAA's required noise metric for the assessment of aircraft noise and was adopted through 14 CFR Part 150 to meet the provisions of the Aviation Safety and Noise Abatement Act of 1979.

14 CFR, Part 150, identifies a DNL level of 65 dB and below as compatible with residential and most other uses. The DNL does not measure sound as it occurs in real time but represents noise as it occurs over an averaged 24-hour period, while giving extra weight to nighttime noise. In determining DNL, the metric assumes that the A-weighted decibel noise levels occurring at night (defined as 10 p.m. to 7 a.m. local) are 10 dB louder than actuality. This 10 dB increase is applied to account for the fact that there is a greater sensitivity to nighttime noise, and the fact that events at night are often perceived to be more intrusive because nighttime ambient noise is less than daytime ambient noise.

To determine whether aircraft noise impacts are significant under NEPA, the FAA considers whether the predicted increase in noise associated with the Proposed Action exceed defined thresholds of significance. For aircraft noise, that threshold is an increase of DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the No Action Alternative for the same timeframe.

To identify the potential for impacts on the noise levels of noise sensitive areas, the FAA conducts an initial noise evaluation using a "screening tool." Screening tools use simplified but conservative modeling assumptions to provide estimates of where noise increases may occur. The noise screening identifies areas that may be exposed to significant noise impacts (i.e., an increase of DNL 1.5 dB or more in an area that is exposed to noise at or above the DNL 65 dB noise exposure level). The noise screening tool also identifies certain areas with potential increases in areas exposed to lower levels of noise, specifically:

- For DNL 60 dB to less than 65 dB: ± 3 dB
- For DNL 45 dB to less than 60 dB: ± 5 dB

The FAA refers to any change in noise exposure levels meeting these criteria as "reportable." Although they do not exceed the threshold of significance for most land uses, for certain land uses where the Part 150 land use guidelines may not be sufficient to account for the noise impact, they are factors to consider in whether there are extraordinary circumstances rendering a categorical exclusion inapplicable.

The FAA completed noise modeling using the Terminal Area Route Generation Evaluation and Traffic Simulation (TARGETS) Environmental Plug-in tool, which uses the Aviation Environmental Design Tool to calculate noise. The FAA obtained historic radar track data for KMSP from the Performance Data Analysis and Reporting System (PDARS). Dates where runways were closed for construction projects were removed from consideration and dates were randomly selected from the remaining available dates within a recent 12-month period (July 2, 2022-June 30, 2023). The FAA

selected random dates to represent average typical runway usage, flight paths, and day/night traffic ratios by capturing a range of temperature and wind conditions.

After the removal of overflights and incomplete track segments, 59,532 total tracks were used for the analysis. The FAA considered the altitude of the historical tracks and set a range ring to contain the area where most of the tracks reached above 10,000 feet AGL. This established the study area for the noise analysis. In the case of KMSP, the range was set at 35 nautical miles (NM).

The noise output files for both the baseline and alternative noise exposures consist of a series of equally spaced grid points, each showing a DNL value. The noise grid (receptor set) consists of grid points (receptors) spaced 0.5 NM apart. The noise impact is a comparison between the baseline and the alternative noise exposure that depicts any reportable and significant noise changes at all affected receptors per the criteria indicated in FAA Order 1050.1F and Chapter 32 of FAA Order 7400.2P. The FAA's noise modeling found no reportable and no significant increase in noise resulting from the Proposed Action. The noise modeling report is included in Appendix D of the final environmental review.

Environmental Justice

According to the United States Environmental Protection Agency (EPA), environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The EPA defines fair treatment to mean that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. The EPA defines meaningful involvement as:

- Potentially affected populations have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health
- The public's contribution can influence the regulatory agency's decision
- The concerns of all participants will be considered in the decision making process
- The rule-writers and decision makers seek out and facilitate the involvement of those potentially affected

The combination of all study areas for the other relevant impact categories represents the potential impact area for environmental justice because environmental justice impacts may be realized in conjunction with impacts to any other impact category.

The description of the affected environment for the NEPA document should identify the minority and low-income populations located within the identified study area. The environmental document should include demographic information about the affected populations and information about the populations that have an established use for the significantly affected resource, or to whom that resource is important (e.g., subsistence fishing).

Note that not all "adverse impacts" within the meaning of DOT Order 5610.2(a) will meet or exceed a significance threshold in another environmental impact category. Some adverse impacts may not be significant impacts in another environmental impact category as defined by Exhibit in FAA Order 1050.1F, yet they may be a significant impact when examined in the context of their effects on minority or low-income populations. As a result, the responsible FAA official must undertake a case-by-case analysis of an action's unique facts. The responsible FAA official does this to

determine if impacts not otherwise rising to a level of significance for NEPA purposes nonetheless represent disproportionately high and adverse effects, and/or a significant impact for environmental justice purposes.

An environmental justice analysis considers the potential of federal actions to cause disproportionately high and adverse effects on low-income or minority populations. Disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- Is predominately borne by a minority population and/or a low-income population; or
- Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

The FAA conducted analysis that is included in the final environmental review to consider the presence of low-income and minority communities within the study area (see Section 4.2.12). The analysis indicates that less than 10% of the population on average is below the poverty level throughout the study area. Although minority and low-income populations are present in the study area, these communities are interspersed with middle- and high-income communities and non-minority populations within the study area. In addition, most of the study area covers areas that do not have distinct minority or low-income populations. Moreover, aircraft have historically overflown the study area.

The environmental justice analysis in Section 4.2.12. of the final environmental review considered the potential of the Proposed Action to cause disproportionately high and adverse effects on low-income or minority populations due to the two factors stated above. In weighing whether the Proposed Action raises environmental justice concerns, the FAA's analysis draws on the findings of the other impact analyses, particularly noise, land use, and air quality. When examined in the context of their effects on minority or low-income populations, the FAA also determined the Action did not have an adverse effect. Based on this analysis, the FAA has determined that the implementation of the Proposed Action has not adversely affected air quality or land use within the study area. Additionally, the results of the noise screening analysis, when comparing the No Action Alternative, indicate that changes in noise exposure levels related to the Proposed Action are below the thresholds for significant and reportable noise impacts. The Proposed Action has no new social or economic effects on the study area compared to the No Action Alternative. Based on the findings of the other impact categories included in this review, no significant environmental impacts were identified. Therefore, there are no socioeconomic impacts and no disproportionate or adverse impacts on minority or low-income populations as a result of the Proposed Action as compared to the No Action Alternative.

Community Involvement

FAA's Community Involvement Policy Statement (April 17, 1995) affirms the FAA's commitment to make complete, open, and effective public participation an essential part of its actions, programs, and decisions. The project website can be found at:

https://www.faa.gov/air_traffic/community_engagement/msp

According to FAA Order 1050.1F, Section 5-4, there is no requirement to notify the public when a categorical exclusion is used. However, the Council on Environmental Quality encourages agencies to determine circumstances in which the public should be engaged or notified before a categorical exclusion is used on a case-by-case basis.

Although not required based on the limited scope of the Proposed Action, the FAA provided for public participation and community engagement for this Proposed Action including workgroup meetings with stakeholders, webinars with live question and answer sessions, and a comment period.

Specific milestones include:

- 1st Workgroup meeting: January 2023
- 2nd Workgroup meeting: May 2023
- 3rd Workgroup meeting: August 2023
- Briefing to the Metropolitan Airport Commission: October 2023
- Briefing to the Noise Oversight Committee: November 2023
- 4th Workgroup meeting: February 2024
- 1st Public Webinar: August 14, 2024
- 2nd Public Webinar: August 15, 2024
- Comment period: through September 15, 2024

The level of environmental review and public engagement that the FAA offered exceeds the Agency's standards for similarly scoped projects where environmental impacts are not identified during the course of the review and a categorical exclusion is appropriate.

Extraordinary Circumstance

Comments were received with objections to the processes utilized to determine the appropriate application of the NEPA. The FAA received comments concerning a categorical exclusion determination for the project. A categorical exclusion, or CATEX, refers to a category of actions that the FAA has determined, based on established methodology, do not individually or cumulatively have a significant effect on the human environment except in extraordinary circumstances. A categorical exclusion is not an exemption or a waiver from NEPA; it is a level of NEPA review and compliance.

FAA Order 1050.1F, Section 5-6.5, *Categorical Exclusions for Procedural Actions*, includes the list of categorical exclusions involving establishment, modification, or application for airspace or air traffic procedures. The term "extraordinary circumstances" is formally defined under NEPA as factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that then requires further analysis in an environmental assessment or environmental impact statement. For FAA actions, extraordinary circumstances exist when the action involves any of the circumstances described in Order 1050.1F, Paragraph 5-2(b), and has the potential for a significant impact.

The Proposed Action is an air traffic action only, with no ground-based activities. For this action, the FAA considered the following factors, which, if they resulted in a significant impact, would preclude use of a categorical exclusion in satisfying NEPA requirements for the Proposed Action:

- An adverse effect on cultural resources protected under the NHPA of 1966, as amended,

54 U.S.C. § 300101 et seq.

- An impact on properties protected under Section 4(f) of the DOT Act
- An impact on natural, ecological, or scenic resources of federal, state, tribal, or local significance
- An impact on noise levels of noise sensitive areas
- An impact on air quality
- Impacts on the quality of the human environment that are likely to be highly controversial on environmental grounds
- Likelihood to directly, indirectly, or cumulatively create a significant impact on the human environment

The environmental review included a thorough analysis of several resource areas, comparing current conditions to the proposed action. This environmental review was prepared by the FAA to determine whether extraordinary circumstances exist which would preclude a categorical exclusion as the appropriate level of environmental review for the Action. The final environmental review fulfills the FAA's compliance with NEPA; implementing regulations issued by the Council on Environmental Quality (40 CFR, parts 1500–1508); FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, and FAA Order 7400.2P, *Procedures for Handling Airspace Matters*.

The final environmental review found that the Proposed Action does not have the potential for a significant environmental impact, and therefore, extraordinary circumstances do not exist. This was determined based on the scope of the action (minor changes to existing flight procedures) and its effects on the FAA's impact categories in accordance with the significance determination criteria set forth in FAA Order 1050. 1F.

The level of environmental review and community involvement the FAA conducted for this project is considerable and exceeds the Agency's standards for similarly scoped projects where environmental impacts are not identified during the course of the review for the project and a categorical exclusion is appropriate.

Outside of the Scope of the Proposed Action

Some comments were received that did not address the actual Proposed Action. This includes comments regarding airport construction projects, airport mitigation programs, comments related to existing flight procedures, and comments regarding airport history.

The Proposed Action considered in the final environmental review and during the public involvement comment period is limited to this VOR decommissioning project. After extensive discussions with stakeholders, it was determined the procedures should be designed to best mimic the current procedures.

Comments received not related to Proposed Action are considered out of scope and are not further addressed.



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September 12, 2024

Federal Aviation Administration
Operations Support Group, AJV-C2
Attn: NAS Analytics Team, 4N313
10101 Hillwood Parkway
Fort Worth, TX 76177-1524

To Whom It May Concern:

The City of Apple Valley appreciates the Federal Aviation Administration's (FAA) efforts to incorporate public feedback as it modernizes the national airspace and develops new Area Navigation (RNAV) departure procedures for the Minneapolis-St. Paul Airport (MSP). From the public information webinars, it appears that the FAA has already incorporated many of the ideas raised by the Metropolitan Airports Commission (MAC) Noise Oversight Committee (NOC) expressing the member cities' feedback for new RNAV procedures. The City of Apple Valley would like to reiterate some of its concerns for the public record as the FAA finalizes the procedures.

The City strongly supports maintaining the current flight track dispersion and tracks over compatible land uses, like the Minnesota River Corridor, as much as is feasible. The City strongly opposes condensing flight tracks over non-compatible land uses, causing detriment to the residents underneath the condensed tracks. The RNAV system has a number of different tools. The City encourages the FAA to apply the more restrictive tools to keep flights tight over unpopulated areas like the Minnesota River Corridor, while using other tools to maintain dispersion over more populated areas so that no single area bears the burden of condensed flight tracks. The arrival track for Runway 17 already has significantly condensed arrival flight tracks. The City strongly encourages the FAA not to create a concentrated departure track over that same space.

The City appreciates the efforts of the FAA to work with the MAC and the cities involved in the NOC to help develop new RNAV procedures that minimize creation of new noise issues for communities around MSP.

Sincerely,

CITY OF APPLE VALLEY


Clint Hooppaw
Mayor



Office of Mayor Jacob Frey
350 S. Fifth St. - Room 331
Minneapolis, MN 55415
TEL 612.673.2100

www.minneapolismn.gov

September 13, 2024

Federal Aviation Administration
Operations Support Group, AJV-C2
Attn: NAS Analytics Team, 4N313
Submitted via email: 9-ajo-csa-public-workshop-comments@faa.gov

Dear Regional Administrator Amend and NAS Analytics Team:

The City of Minneapolis would like to take this opportunity to provide comment regarding proposed procedures for Minneapolis St. Paul International Airport (MSP) as presented to the public via webinars on August 14 and 15, 2024. These comments are in addition to our letter of August 12, which is attached. The City and our residents greatly value MSP as a vital service and contributor to the economy. We enjoy many benefits of the airport but are also impacted by noise and emissions. As direct neighbors, the City advocates for conditions that will allow the airport *and* neighboring communities to thrive. We have a long and collaborative history with the Metropolitan Airports Commission (MAC) and Federal Aviation Administration (FAA) towards this goal.

Minneapolis has participated in discussions about proposed performance-based navigation (PBN) departure procedures as a city and member of the Noise Oversight Committee (NOC). NOC provided recommendations to guide public engagement and development of the procedures on November 29, 2023. The FAA held a workshop with a NOC subcommittee on October 30, 2023, regarding preliminary designs and NOC provided formal comment on the preliminary designs on January 31, 2024.

Throughout this process, the City has emphasized the need for both well-designed procedures and engagement that ensures residents are informed, have their questions answered, and their feedback considered. The goal is to build trust while achieving safe and efficient procedures that will serve the airport, the aviation industry, *and* surrounding communities well.

A concern the City elevated in these discussions is about the potential for PBN procedures to concentrate flight paths. Land use in Minneapolis does not provide suitable opportunities to concentrate operations and the City has historically advocated for dispersing operations to manage or mitigate negative impacts. The City and NOC have communicated to the FAA about the goal of replicating existing flight paths and preventing the concentration or shifting of noise.

We appreciate that FAA has acknowledged “a common goal of ensuring existing dispersed pathways above MSP’s surrounding communities remain consistent with what they are today - provided they meet FAA safety criteria and operational requirements.” This was articulated in an FAA letter of March 26, 2024, and discussed at NOC on July 17, 2024. We understand the FAA also identified operational advantages associated with dispersion.

The information presented to the public in August indicated that Minneapolis residents can expect flight patterns that are similar to today. This was noted numerous times. The City and our residents are relying on these representations. As we understand it, outcomes will be affected by published procedures as well as actions taken by Air Traffic Control.

Residents who participated in the webinars had questions about the environmental impacts of proposed procedures, including noise. That information is important to understanding the procedure yet is not anticipated until early next year. It will be important to maintain public trust during environmental review

and address any unexpected impacts revealed by the data.

As the FAA determines the appropriate level of environmental review it must consider that there are census tracts in Minneapolis recognized as overburdened, underserved, and disadvantaged according to the Climate and Economic Justice Screening Tool. The City also believes that “Extraordinary Circumstances” exist which would warrant an Environmental Assessment or Environmental Impact Statement and opportunity for public review and comment.

Extraordinary Circumstances exist when there are “Impacts on the quality of the human environment that are likely to be highly controversial on environmental grounds.” We believe there is great potential for “substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm.” Satellite-based departure procedures were previously proposed for MSP and were highly controversial at the time. These circumstances contributed to a lack of trust which continues in the community today.

If the FAA concludes that this project falls within a Categorical Exclusion, additional documentation should be included in the record. National Environmental Policy Act guidance says that additional documentation should be provided in circumstances involving known controversy or public opposition, or, for which litigation is anticipated.

Again, the City and our residents are relying on representations that after publication of procedures next August, Minneapolis residents should expect flight patterns similar to today. In response to questions at the webinars regarding climb rates and departure altitudes residents were told to expect minimal change or altitude gains with noise reduction. As you advance these procedures, please continue to evaluate whether these expectations will be met.

The City would like the FAA’s commitment to review impacts post-implementation, including noise, and to adjust procedures as needed to address unexpected or unwelcome impacts. This is particularly important given multiple unknown factors, including the impacts of actions that will be taken by Air Traffic Control. If data shows there have been significant changes from the previous noise patterns that are not acceptable to communities around the airport, we ask that the FAA undertake a study to revise the flight paths to ensure that the new noise footprint matches the existing noise footprint to the maximum extent possible.

We expect that NOC will be looking at post-implementation data as part of its Work Plan. A significant construction project is anticipated in 2025 that will disrupt normal runway use and therefore we would request a minimum of six months after construction is complete to collect data and review it. These procedures are likely to be in place for a very long time and it is prudent to invest the time and resources up-front to achieve the best long-term result for all stakeholders.

Thank you for the collaboration on this project and for the work FAA does daily to safely move people and goods.

Yours Truly,

A handwritten signature in black ink, appearing to read 'JF', is written over the typed name of Mayor Jacob Frey.

Mayor Jacob Frey
City of Minneapolis

Cc: Senator Amy Klobuchar
Senator Tina Smith
Representative Ilhan Omar
Beth White, Senior Strategist for Public and Industry Engagement, FAA

August 12, 2024

Mr. Erik Amend
Regional Administrator, Great Lakes Region
Federal Aviation Administration
2300 Devon Avenue
Des Plaines, IL 60018

Dear Regional Administrator Amend,

We are reaching out regarding the development of performance-based navigation (PBN) procedures for Minneapolis St. Paul International Airport (MSP). It is important to the city of Minneapolis that we have a successful result from this process that will both serve the needs of the FAA and work for communities around the airport. We would like to reiterate our priorities for this process.

As you know, Minneapolis is situated at one end of the parallel runways and is usually being impacted by either departure traffic or arrival traffic. The areas most impacted are densely populated residential neighborhoods. More than 13,000 of the 16,000 plus homes mitigated around MSP are located in Minneapolis. Therefore, preventing or managing negative impacts from the airport is important and we have a long history of collaborating with MAC and FAA to do that.

As you are aware, this region has prior experience with proposed departure procedures. During the 2012-2014 process, there were specific community concerns about the design as well as added anxiety because many questions were not answered. This contributed to fear and mistrust. The city's hope for the current process is that we can prevent any unnecessary anxiety and discuss the facts of the proposal. Due to the region's unique history with this matter, a customized approach may be needed to ensure a successful outcome.

To achieve a good outcome for this project, it's critical that both the design of procedures and the public engagement are excellent.

In terms of design, you are aware that the city and Noise Oversight Committee (NOC) have expressed concerns about the potential of PBN procedures to concentrate flight paths. We have asked the FAA to prevent concentration and disperse noise and operations. We appreciate that in the March 26 letter to NOC, FAA acknowledges "a common goal of ensuring existing dispersed pathways above MSP's surrounding communities remain consistent with what they are today - provided they meet FAA safety criteria and operational requirements." It will be important for the city and residents to see detailed depictions of the proposed procedures, including how they compare to current conditions.

The City and NOC have also talked about the importance of meaningful public engagement –where feedback is considered and where the public's questions are answered. We sincerely appreciate that "the FAA is committed to making complete, open, and effective public participation an essential part of this process" and that "FAA will ensure the dialogue with the general public is two-way and that suggestions received during these sessions are considered for final procedure designs." It will be important that questions that arise, including questions because of the webinar, are answered.

We must note that we perceive public awareness of this project to be low. The city enterprise and Council Members have sought to amplify communications from the FAA including an initial message and video, and the webinar notices. Yet, we are concerned that many residents are unaware. That may mean that questions seemingly come up “late” in the process. We ask that the FAA be prepared to adapt if that is the case and ensure the public has sufficient information.

The city requests that the comment period be extended to 90 days to allow information to reach the public and allow local governments to follow internal procedures if they wish to provide comment. NOC also recommended a 90-day comment period. As you know, the city and NOC strongly recommended that at least one meeting have an in-person component but that recommendation was not taken.

We appreciate that FAA showed preliminary designs to NOC and that NOC was able to provide feedback as a body. That was a valuable process. However, we want to note that we do not view this as “public engagement” since the workshop and associated materials were not available publicly. The city cannot speak for residents to the FAA about proposed procedures until residents can review the designs and we can hear from them.

Again, we are greatly appreciative of efforts to replicate today’s conditions rather than shift or concentrate flight paths. When the procedures are implemented, we hope the FAA will make all possible adjustments if that goal is not achieved.

We look forward to the ongoing work. If you have any questions please contact Loren Olson, Senior Government Relations Representative, at: loren.olson@minneapolismn.gov.

Yours truly,

A handwritten signature in black ink, appearing to be 'JF', written in a cursive style.

Mayor Jacob Frey
City of Minneapolis

Senator Any Klobuchar
Senator Tina Smith
Representative Ilhan Omar
Sean Doyle, FAA Deputy Regional Administrator, Great Lakes Region
Rick King, Chair, Metropolitan Airports Commission
Brian Ryks, Executive Director/CEO, Metropolitan Airports Commission
Leili Fatehi, Commissioner Metropolitan Airports Commission
Emily Koski, City Council Member, City of Minneapolis (NOC Member)
Loren Olson, Senior Government Relations Representative, City of Minneapolis



September 17, 2024

Federal Aviation Administration
Operations Support Group, AJV-C2
Attn: NAS Analytics Team, 4N313
Submitted via email: 9-ajo-csa-public-workshop-comments@faa.gov

**RE: Proposed performance-based navigation departure procedures
("PBN")**

Dear Regional Administrator Amend and NAS Analytics Team:

On behalf of the City of Edina, MN, I first of all wish to thank the Federal Aviation Administration ("FAA") for taking a measured and cautious approach to the implementation of PBN departure procedures at the Minneapolis-St. Paul International Airport ("MSP"). Cities like Edina and Minneapolis first worked with the FAA and the Metropolitan Airports Commission ("MAC") back in 2011, as I recall, on this very issue, and at that point in time it was determined not to deploy a new GSP based system on a departure basis, although I believe such a system, or variation thereof, was adopted on an inbound basis. The notions of enhanced safety and greenhouse gas reduction were, as I recall, part of the overall goals of the FAA.

Since 2011, the FAA and its local partner, the MAC, have continued to use a dispersing technique on departures to not overburden any particular community. Edina endorsed that strategy on departures over a decade ago and continues to endorse that strategy of appropriate rapid ascent and broad dispersal today, too.

In 2011, as I recall, the proposed implementation of PBN would have resulted in flights on two tracks out over southwest Minneapolis and Edina – one track down either Highway 494 or the Crosstown (TH62) and the other track right over residential neighborhoods in both southwest Minneapolis and central Edina – every 2-3 minutes. That plan would have been intolerable from a sound standpoint, was environmentally damaging and would have caused a degrading of home values in not only our historically recognized neighborhood of Country Club, but our South Harriet Park neighborhood, too. We were so grateful this never occurred.

EDINA CITY COUNCIL

Mayor James B. Hovland • Kate Agnew • Carolyn Jackson • James Pierce • Julie Risser
4801 West 50th Street • Edina, Minnesota 55424 • EdinaMN.gov • 952-927-8861

As mentioned earlier, the more deliberate process employed by the FAA for studying and implementing new departure procedures out of MSP through public webinars, conversations with the MAC Board and its Noise Oversight Committee (“NOC”), workshops regarding preliminary designs, etc., has been appreciated. Also appreciated is the improved technologies supporting this system.

Edina, like Minneapolis, however, continues to be concerned about having a strong level of FAA assurance that departures under the new PBN system will utilize the same level of dispersal strategy as under the existing system. The idea of returning to the idea of any compressed, limited tracking system, that employed a dispersal strategy resulting in flights every few minutes out over Edina, on a limited number of tracks, would be ardently opposed. If one is using a GPS style system, it seems like multiple tracks for ascent and departure, akin to what exists now, is something on which the FAA could, and should, supply a comforting level of assurance.

I think the reason there continues to be a level of apprehension in 2024 about PBN and the planned dispersal strategy is that the information provided has a disquieting level of ambiguity. By way of illustration, maps and information presented at the two workshops made it impossible to understand the manner in which switching to RNAV or PBN will impact Edina residents. The background maps are so light and the level of granularity is such that it’s really impossible to understand which areas of Edina will be most impacted and why.

On the Procedure Board Overview map (first image in the PSP Project Boards), an even pink highlight is used to indicate “the area that aircraft will fly in the future when Air Traffic Controllers give pilots dispersed headings to follow called vectors.” This band is wide and does not have any gradations so it is really impossible to determine how Edina will be impacted and if some quadrants of Edina will be impacted more than others.

Next, while cities received assurance that changing to RNAV would bring little change, the image and information provided at the two public workshops appeared to reveal Edina might experience more airline noise. Accordingly, a meeting with the FAA on these issues would be most appreciated so we could better understand both routing and potential noise impact.

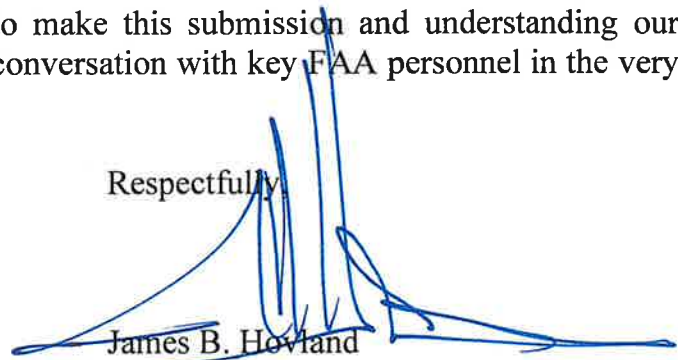
Additionally, in terms of public engagement, we understand the process didn’t really allow for robust or even informed public input; members of the public were not provided with information about the specific proposed pathways before the meeting (or even during the meeting); and the workshops themselves were very limited with a lot of time dedicated to the panelists.

Federal Aviation Administration
September 17, 2024
Page 3

Finally, we support the concerns raised by our neighbor, the City of Minneapolis, in its correspondence to the FAA dated September 13, 2024 (copy attached).

Thank you for the opportunity to make this submission and understanding our concerns. We look forward to having a conversation with key FAA personnel in the very near future.

Respectfully,



James B. Howland
Mayor, City of Edina

Enclosure

cc: Senator Amy Kobuchar
Senator Tina Smith
Representative Ilhan Omar
Beth White, Senior Strategist for Public
And Industry Engagement, FAA
Brian Ryks, E.D., Metropolitan Airports Commission
Rick King, Chair, Metropolitan Airports Commission

September 13, 2024

Federal Aviation Administration
Operations Support Group, AJV-C2
Attn: NAS Analytics Team, 4N313

Submitted via email: 9-ajo-csa-public-workshop-comments@faa.gov

Dear Regional Administrator Amend and NAS Analytics Team:

The City of Minneapolis would like to take this opportunity to provide comment regarding proposed procedures for Minneapolis St. Paul International Airport (MSP) as presented to the public via webinars on August 14 and 15, 2024. These comments are in addition to our letter of August 12, which is attached.

The City and our residents greatly value MSP as a vital service and contributor to the economy. We enjoy many benefits of the airport but are also impacted by noise and emissions. As direct neighbors, the City advocates for conditions that will allow the airport *and* neighboring communities to thrive. We have a long and collaborative history with the Metropolitan Airports Commission (MAC) and Federal Aviation Administration (FAA) towards this goal.

Minneapolis has participated in discussions about proposed performance-based navigation (PBN) departure procedures as a city and member of the Noise Oversight Committee (NOC). NOC provided recommendations to guide public engagement and development of the procedures on November 29, 2023. The FAA held a workshop with a NOC subcommittee on October 30, 2023, regarding preliminary designs and NOC provided formal comment on the preliminary designs on January 31, 2024.

Throughout this process, the City has emphasized the need for both well-designed procedures and engagement that ensures residents are informed, have their questions answered, and their feedback considered. The goal is to build trust while achieving safe and efficient procedures that will serve the airport, the aviation industry, *and* surrounding communities well.

A concern the City elevated in these discussions is about the potential for PBN procedures to concentrate flight paths. Land use in Minneapolis does not provide suitable opportunities to concentrate operations and the City has historically advocated for dispersing operations to manage or mitigate negative impacts. The City and NOC have communicated to the FAA about the goal of replicating existing flight paths and preventing the concentration or shifting of noise.

We appreciate that FAA has acknowledged "a common goal of ensuring existing dispersed pathways above MSP's surrounding communities remain consistent with what they are today - provided they meet FAA safety criteria and operational requirements." This was articulated in an FAA letter of March 26, 2024, and discussed at NOC on July 17, 2024. We understand the FAA also identified operational advantages associated with dispersion.

The information presented to the public in August indicated that Minneapolis residents can expect flight patterns that are similar to today. This was noted numerous times. The City and our residents are relying on these representations. As we understand it, outcomes will be affected by published procedures as well as actions taken by Air Traffic Control.

Residents who participated in the webinars had questions about the environmental impacts of proposed procedures, including noise. That information is important to understanding the procedure yet is not anticipated until early next year. It will be important to maintain public trust during environmental review and address any unexpected impacts revealed by the data.

As the FAA determines the appropriate level of environmental review it must consider that there are census tracts in Minneapolis recognized as overburdened, underserved, and disadvantaged according to the Climate and Economic Justice Screening Tool. The City also believes that “Extraordinary Circumstances” exist which would warrant an Environmental Assessment or Environmental Impact Statement and opportunity for public review and comment.

Extraordinary Circumstances exist when there are “Impacts on the quality of the human environment that are likely to be highly controversial on environmental grounds.” We believe there is great potential for “substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm.” Satellite-based departure procedures were previously proposed for MSP and were highly controversial at the time. These circumstances contributed to a lack of trust which continues in the community today.

If the FAA concludes that this project falls within a Categorical Exclusion, additional documentation should be included in the record. National Environmental Policy Act guidance says that additional documentation should be provided in circumstances involving known controversy or public opposition, or, for which litigation is anticipated.

Again, the City and our residents are relying on representations that after publication of procedures next August, Minneapolis residents should expect flight patterns similar to today. In response to questions at the webinars regarding climb rates and departure altitudes residents were told to expect minimal change or altitude gains with noise reduction. As you advance these procedures, please continue to evaluate whether these expectations will be met.

The City would like the FAA’s commitment to review impacts post-implementation, including noise, and to adjust procedures as needed to address unexpected or unwelcome impacts. This is particularly important given multiple unknown factors, including the impacts of actions that will be taken by Air Traffic Control. If data shows there have been significant changes from the previous noise patterns that are not acceptable to communities around the airport, we ask that the FAA undertake a study to revise the flight paths to ensure that the new noise footprint matches the existing noise footprint to the maximum extent possible.

We expect that NOC will be looking at post-implementation data as part of its Work Plan. A significant construction project is anticipated in 2025 that will disrupt normal runway use and therefore we would request a minimum of six months after construction is complete to collect data and review it. These procedures are likely to be in place for a very long time and it is prudent to invest the time and resources up-front to achieve the best long-term result for all stakeholders.

Thank you for the collaboration on this project and for the work FAA does daily to safely move people and goods.

Sincerely,

Jacob Frey

Cc: Senator Amy Klobuchar
Senator Tina Smith
Representative Ilhan Omar
Beth White, Senior Strategist for Public and Industry Engagement, FAA



6040 28th Avenue South, Minneapolis, MN 55450 • 612-467-0741

November 29, 2023 Noise Oversight Committee Recommendations to the FAA

The Noise Oversight Committee (NOC) understands and appreciates that the Federal Aviation Administration (FAA) is committed to complete, open, and effective participation in agency action, and that the agency regards community involvement as an essential element in the development of its actions, programs, and decisions.

Effective community involvement broadens FAA's information base and improves decisions. FAA collaboration with the public and airport stakeholders is critical during the planning and design of proposed Area Navigation (RNAV) procedures. The first step in meeting the needs of the public is to understand the public's needs.

The NOC wishes to be strategic partners in community involvement regarding the proposed RNAV procedures at MSP, particularly in an effort to assist FAA in better understanding the public's concerns and needs. The NOC therefore puts forward the following recommendations.

Provide opportunities for meaningful public engagement

- Conduct engagement that seeks community input and does not simply inform the public. The FAA *Community Involvement Manual* emphasizes the importance of establishing ongoing, two-way communications that gives the public an opportunity to understand the proposed project and to ask questions and raise concerns before decisions are made. Therefore, the FAA should:
 - Allow sufficient time for public input to shape the outcome of the project.
 - Thoughtfully consider all input received from the NOC and the public and incorporate into procedure design as feasible (i.e., where safety and efficiency would not be negatively impacted).
 - Clarify why any input received is not feasible to be incorporated into procedure design by explaining how it would negatively impact safety and efficiency.

Provide additional opportunities to engage with the public

- Community involvement should start in the design phase. The FAA has stated, and the NOC agrees, that community concerns should be identified as early as practicable and considered in the planning process. FAA's *Community Involvement Performance Based Navigation Desk Guide* recommends sharing preliminary designs with the community to solicit feedback to inform decision making and project refinements. The FAA's *Community Involvement Manual* acknowledges that meeting with specialized groups (such as NOC or MAC) may not entirely capture views of the community. FAA should provide the following additional opportunities to engage the public regarding procedure design:

- Conduct broader public engagement efforts by presenting the proposed procedures at a workshop/meeting with NOC open to the public on or before January 3, 2024. This will afford the FAA the opportunity to provide necessary context about the design as leaders of the project. Additionally, it will allow the FAA to understand if the proposed procedures would be highly controversial on environmental grounds prior to making a determination of the appropriate level of environmental review. This would not take the place of the public workshops the FAA plans to conduct in the Summer 2024.
- A combination of techniques is usually needed to reach all the relevant communities. Therefore, the FAA should conduct one virtual and two in-person public workshops. A combination of virtual and in-person workshop options offers the most inclusivity by being accessible both to those who cannot travel to an in-person meeting and to those less familiar with technology or who lack reliable internet access.

Increase transparency and communicate effectively

- Recognize and develop a communication approach that considers community sensitivity to RNAV design and information gaps based on previous projects. This communication approach should include:
 - Explanation of the project benefits and efforts made to consider noise and incorporate community concerns into the proposed design.
 - Presentation of the proposed procedures in a manner that is accessible to non-technical audiences while providing sufficient detail and technical information to communicate procedure design and how aircraft will operate.
 - Use of creative tools to increase community understanding (i.e. online illustrative and interactive tools).
 - Accessible information to communities across the Minneapolis/St. Paul Twin Cities area with translation services available as needed (Spanish, Hmong, Somali, and ASL interpretation).
- During the public workshops, communicate the impact of the procedures to residents, anticipated changes in noise exposure and what it means for them and their experience of aircraft over their homes today.
- Advertise the public workshops to communities across the Minneapolis/St. Paul Twin Cities area and have translation services available as needed (Spanish, Hmong, Somali, and ASL interpretation).
- Increase public awareness and clarify opportunities for public participation by:
 - Sharing details with the NOC about the timelines, technical design steps, and engagement required to implement the procedures to decommission the MSP VOR on schedule.
 - Providing NOC members with information that can be shared with their stakeholders.

Identify additional opportunities for proposed procedures to replicate existing flight paths

- The proposed West SID ultimately separates into three routes; however, areas near the airport when aircraft are at their lowest altitude, are more concentrated and located in areas that receive arrival overflights to Runways 12L and 12R. Include more dispersion of these straight-out departures on Runways 30L and 30R in consideration of the areas currently impacted by arriving aircraft.
- The aircraft modeled on the 360-degree COULT, and 340-degree North and Northeast SIDs departing Runways 30L and 30R indicates aircraft will turn tighter and earlier, changing the area where aircraft are turning southeast-bound (COULT SID) and northeast-bound (North and Northeast SIDs). If this is an accurate representation of day-to-day departure operations to the north, it will put aircraft operations over areas that currently do not receive these types of overflights. Operations on these departures should fly further on the 360- and 340-degree headings prior to making their next right turn, similar to how they fly these departure procedures today with the goal of spreading out tracks and preventing concentration. This may also require adjustments to arrival routes to accommodate this request.
- The aircraft modeled on the West and KBREW SIDs, departing Runways 12L and 12R indicates a change in the area where aircraft are turning west-bound (West SID) and north-bound (KBREW SID). If this is an accurate representation of day-to-day departure operations to the south, it will put aircraft operations over areas that currently do not receive these types of overflights. Operations on these departures should fly further to the north prior to making their next left turn, similar to how they fly these departure procedures today with the goal of spreading out tracks and preventing concentration. This may require adjustments to arrival routes to accommodate this request.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Great Lakes Regional Office
2300 East Devon Avenue
Des Plaines, IL 60018-4696

January 5, 2024

Cheryl Jacobson
MSP NOC Community Member
City of Mendota Heights

Paul Buckley
MSP NOC Airport User Member
Delta Air Lines

Dear Ms. Jacobson and Mr. Buckley,

Thank you for your November 29, 2023 letter sent on behalf of the Minneapolis – St. Paul Airport (MSP) Noise Oversight Committee (NOC) containing initial community outreach and procedure recommendations for the area navigation (RNAV) departure procedures being developed at MSP. The FAA is committed to community engagement and maintaining a dialogue as this project progresses. We also appreciate the NOC's willingness to work together to represent their member communities and the Twin Cities area in general, and to provide preliminary feedback on our draft procedures. These draft procedures were previously shared with the Metropolitan Airports Commission (MAC) on October 10 and 26, 2023 and the NOC Subcommittee on October 30, 2023.

The FAA developed the draft procedures for MSP based on three official design meetings and multiple discussions with the MAC, airlines, local and regional air traffic control, and other aviation stakeholders. In addition to the three procedure recommendations provided by the NOC in their November 29, 2023, letter we welcome any additional feedback they would like to provide on the draft procedures by the agreed to February 1, 2024, deadline. The FAA's Air Traffic team plans to review the three recommendations already submitted by the NOC in conjunction with other subsequent feedback submitted by February 1, 2024, in totality, during a February 6, 2024, workgroup meeting. During this meeting, project stakeholders will assess the NOC's recommendations for feasibility, safety, and efficiency in consideration for potential modification of draft procedure designs. Any suggestions that are feasible and do not negatively impact safety or efficiency, will be assessed for consideration in the final procedures. Suggestions received from the NOC, whether they are feasible or not, will be summarized and posted on our [MSP community involvement website](#) which will also feature updates, resources and other related documents throughout the full life cycle of the project. However, it should be noted that the final proposed procedures will not be reviewed for noise impacts and other environmental factors until we begin our review under the National Environmental Policy Act (NEPA), which will commence later in 2024.

The FAA remains committed to multi-faceted engagement throughout the procedure development process including evaluating recommendations provided by the NOC. While we have started our engagement with the MAC and the NOC on the initial draft procedures,

we also plan to conduct public outreach sessions in 2024 as well as any formal engagement required as part of the environmental review under NEPA. The dates for these sessions have not yet been determined, but the FAA will consult with both the MAC and the NOC before scheduling is finalized.

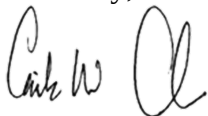
These sessions will include materials showing the new procedures, feature a question-and-answer session with air traffic controllers, and provide explanations of the changes being proposed. These sessions will be held live and will be hosted on a virtual platform. They will also be recorded which will provide a greater reach for engagement to community members not available to participate during the live session. Those viewing the recording(s) will be able to submit comments. We will plan to have live closed captioning during the event and will assess if additional language tracks for the recordings are needed to support limited English proficiency communities in the vicinity of MSP.

Since the FAA subject matter experts who will support these sessions are located throughout the country, holding virtual sessions is both more cost-effective, ensuring prudent use of taxpayer funds while providing expanded access to subject-matter experts. Virtual sessions will also provide for greater reach to members of communities and more transparency on project considerations. The FAA will ensure the dialogue with the general public is two-way and that suggestions received during these sessions are evaluated for feasibility and safety implications. Comments will be accepted via US Postal Service or to our online comments mailbox during and after the workshops, and all comments will be addressed in the final NEPA documentation for the project.

To meet the necessary air traffic charting deadlines, the FAA is working towards a goal of publishing the new procedures by August 2025. However, as part of our dialogue with the MAC who has expressed the goals of the NOC, we have discussed a common goal of ensuring existing dispersed pathways above MSP's surrounding communities remain consistent with what they are today - provided they meet FAA safety criteria and operational requirements.

We look forward to continuing our dialogue with the MAC and NOC and reviewing initial feedback for the draft procedures received by February 1, 2024. Beyond February, the MAC and the NOC will play a vital role with the FAA to develop and discuss timing of next steps as well as public engagement sessions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Erik Amend', with a stylized flourish at the end.

Erik Amend, PMP
Regional Administrator
Great Lakes Region

Cc:

Bryan Ryks, MAC
Roy Fuhrmann, MAC
Naomi Pesky, MAC

Evan Wilson, MAC
Dana Nelson, MAC
Mitch Kilian, MAC
Kyle Fisher, MAC
Michele Ross, MAC



6040 28th Avenue South, Minneapolis, MN 55450 • 612-467-0741

January 31, 2024 Noise Oversight Committee Recommendations

The Minneapolis-St. Paul International Airport (MSP) Noise Oversight Committee (NOC) appreciates the opportunity the FAA has afforded for the NOC to share insight related to aircraft overflights, noise and meaningful public engagement. The NOC acknowledges that this opportunity to provide feedback to the FAA this early in the FAA's procedure design process is not typical and, due to that, the FAA had limited data available to share regarding its proposed procedures, in part because broader public engagement has not yet formally begun.

The recommendations provided by the NOC are based on the information currently available from the FAA. The NOC understands that the FAA has stated more information will be made available to the public at a later date, during the FAA's broader public engagement efforts that are planned for Summer 2024. The NOC will continue to share insight with the FAA throughout the duration of this FAA initiative and looks forward to reviewing additional information and hearing from residents during broader public engagement.

The NOC submitted recommendations to the FAA on November 29, 2023. The submitted recommendations were developed with the goal of building trust, dispelling misinformation, and providing adequate public accessibility to project materials. The FAA responded on January 5, 2024, noting the FAA's continued commitment to consider the NOC's feedback provided on or before February 1, 2024 for this initial feedback period. The NOC puts forward the following additional recommendations in conjunction with the recommendations submitted on November 29, 2023, which the NOC continues to endorse, and FAA has stated they will review in totality. The following additional recommendations were developed to encourage meaningful public engagement, effective communication, opportunities to replicate existing procedures and reduced concentration of aircraft activity over residential neighborhoods.

Provide opportunities for meaningful public engagement

- Provide a public comment period of up to 90 days related to FAA's proposed procedures and resultant environmental review to allow members of the public sufficient time to be informed and equipped to participate in the FAA's comment process.
- In order to have broad and effective outreach, the NOC would like the FAA to avoid scheduling its public workshops during major holidays.
- As noted in the FAA's January 5, 2024, response to the NOC's recommendations submitted on November 29, 2023, the FAA plans to hold virtual open houses due to the FAA's perspective that they are convenient, provide greater reach and flexibility and are more cost effective. The NOC recommends the FAA provide in-person FAA personnel for at least one hybrid public workshop, as this would honor the points raised by the FAA and offers the most inclusivity by being accessible

both to those who cannot travel to an in-person meeting and to those less familiar with technology or who lack reliable internet access.

Increase transparency and communicate effectively

- As the governmental agency responsible for this project, FAA is the appropriate lead to actively communicate and engage with the public regarding FAA's proposed procedure updates. Community leaders should not be put in the position of representing the FAA's project.
- Prior to public workshops, the NOC recommends the FAA develop a short video presentation to share simple and concise information about what RNAV is and what process the FAA will follow to develop, study and implement the new procedures.
- The NOC recommends the FAA communicate the benefits that the FAA identifies associated with implementation of its proposed procedures, including unrestricted climbs that may help offset some of the noise impacts on the new flight paths.
- The NOC recommends the FAA include all common airport configurations in its analysis and public presentation materials to ensure the public has a full picture of how the new procedures may be used. Specifically, the NOC would like to see the following configurations be included: North Flow (arrivals and departures on Runways 30L and 30R and arrivals on Runway 35); South Flow (arrivals and departures on Runways 12L and 12R and departures on Runway 17); and Mixed A (arrivals and departures on Runways 30L and 30R and departures on Runway 17).

Effectively communicate environmental impacts

- The NOC requests the FAA explain the process used to determine the appropriate level of environmental review for the project and carefully consider Environmental Justice, Socioeconomic, and Extraordinary Circumstance factors when making this determination. There are census tracts in the region which are recognized as overburdened, underserved, and disadvantaged by the Climate and Economic Justice Screening Tool. Additionally, due to the history of RNAV in this community, there may be potential for "substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action's environmental impacts or over the action's risks of causing environmental harm."
- Publish a robust environmental review document for public access and transparency, including an executive summary, and present these findings to the public, regardless of the level of review that FAA deems appropriate for the project.
- Given the community's long-standing history of active involvement regarding noise issues at MSP, the NOC recommends the FAA model and present the changes in the noise environment that residents can expect to observe from the FAA's implementation of its proposed procedures, regardless of whether the impacts meet FAA's level of significant noise impact threshold.

Identify additional opportunities for proposed procedures to reduce overflight concentration over neighborhoods

- The NOC recommends the FAA not create a concentrated RNAV departure path for straight-out departures from Runway 17, in consideration of the areas currently impacted by arriving aircraft to Runway 35.
- The NOC appreciates the efforts by the FAA to use VI-CF legs to concentrate aircraft activity within the established boundary of the Egan-Mendota Heights Corridor. The same departing aircraft overfly residential land uses within the corridor and as they exit the end of the corridor, where aircraft concentration would not be beneficial. Therefore, the NOC recommends the FAA evaluate VA-DF leg types for greater dispersion as an alternative to the proposed VI-CF for Runways 12L and 12R departures.

Identify additional opportunities to enhance use of existing noise abatement practices

- During South Flow operations, aircraft departing with a 120-degree heading from Runway 12L utilize the established noise abatement procedure, Crossing-in-the-Corridor. This benefits surrounding communities by directing aircraft over more compatible land in the center of the Egan-Mendota Heights Corridor. Since RNAV provides more precise and predictable routes and the FAA has stated that during South Flow operations Runway 12R is only used for departures when operationally necessary, the NOC recommends the FAA assign a 120-degree heading to additional Runway 12L RNAV departures to route aircraft over the center of the corridor without increasing overflights over residential areas of Sunfish Lake.
- Aircraft departing over the Minnesota River reduces the instances of aircraft overflying residential areas. The NOC recognizes the FAA's high use of the existing Runway 17 turn point noise abatement procedure to keep westbound turns over the Minnesota River today. The NOC recommends the FAA take this opportunity to keep Runway 17 departures that are designed to fly over the Minnesota River, over the River for as long as possible before flying over homes and other noise sensitive areas.
- The NOC recommends the FAA's procedures minimize shifts in flight patterns that may be due, in part, to planes staying on runway heading longer than they do today. Staying on runway heading may lead to shifts in areas of overflights and conflicts with a noise abatement principal of the MAC and NOC, which is to reduce straight out departures over communities already impacted by arrival noise. Using a 500-foot per nautical mile (NM) climb gradient may allow an aircraft to initiate a turn on course closer to the departure end of the runway. The NOC recommends the FAA evaluate a 500-foot per NM climb gradient.

Identify additional opportunities for proposed procedures to replicate existing flight paths

- Currently, only departure procedures with 230-to-285-degree headings for Runway 17 are designed with altitude restrictions at seven nautical miles DME (distance measure equipment). Commonly used Runway 17 departure headings of 120-to-170-degrees are not currently designed with a crossing restriction. The NOC requests that Runway 17 departure procedures that do not require altitude restrictions be designed without waypoints at seven miles, to replicate existing procedures and continue to disperse aircraft departures to the extent feasible.

- The westbound (260-degree) heading off Runways 30L and 30R overflies residential areas to the north and west of the airport. The NOC understands from the FAA that the new RNAV procedures may concentrate flight paths as aircraft approach the proposed first waypoints if aircraft are not vectored off the initial 260-degree heading. To prevent concentration near the first waypoint, the NOC recommends that the FAA evaluate opportunities for designing the procedures with the goal of spreading out tracks, replicating existing aircraft dispersion, and preventing concentration. Opportunities may include air traffic controllers turning aircraft off the 260-degree prior to reaching the first waypoint for departures ultimately going south- and southeast-bound, shifting the location of the first waypoint, or identifying additional headings.
- Similar to the point above, the NOC recommends the FAA evaluate opportunities to spread out tracks and prevent concentration in residential areas off the end of the Eagan-Mendota Heights Corridor. Opportunities may include air traffic controllers turning aircraft off the 105-degree heading for aircraft departing Runway 12L after exiting the Eagan-Mendota Heights Corridor and prior to reaching the proposed first waypoint, similar to how most departures operate today.
- In keeping with the points above, the northeast bound (340- and 360-degree) headings off Runways 30L and 30R overfly residential areas to the north and east of the airport. The NOC recommends that the FAA evaluate opportunities to spread out tracks, prevent concentration, and replicate aircraft dispersion experienced today in these residential areas. Opportunities may include air traffic controllers directing aircraft on these headings similar to how most departures operate today, shifting the location of the first waypoints, or identifying additional headings.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Great Lakes Regional Office
2300 East Devon Avenue
Des Plaines, IL 60018-4696

March 26, 2024

Cheryl Jacobson
MSP NOC Community Member
City of Mendota Heights

Paul Buckley
MSP NOC Airport User Member
Delta Air Lines

Dear Ms. Jacobson & Mr. Buckley,

Thank you for your January 31, 2024, letter sent on behalf of the Minneapolis – St. Paul Airport (MSP) Noise Oversight Committee (NOC). The FAA appreciates the NOC's recommendations provided on community outreach and procedure development for the area navigation (RNAV) departure procedures currently being developed at MSP. The FAA appreciates being able to have this dialogue early. What follows is part of that conversation but, unless specifically noted, no final decisions have been made that would be pre-decisional under the National Environmental Policy Act (NEPA) and other applicable laws and regulations.

The FAA has reviewed your January 31, 2024, letter and we appreciate the NOC's willingness to represent their member communities and the Twin Cities area in general, and to provide feedback on our initial draft procedures. The FAA is committed to community engagement, and based on this initial feedback, the FAA has incorporated changes to the initial project design in response to NOC's comments, which are noted below. These changes will be assessed for consideration for the final procedures under all applicable laws. The other non-procedural recommendations from the NOC and other stakeholders are very much appreciated by the FAA and are still being considered as part of this project.

The FAA developed the initial draft procedures for MSP based on three official design meetings and multiple discussions with aviation stakeholders including the MAC, airlines, local and regional air traffic control. These draft procedures were previously shared with the Metropolitan Airports Commission (MAC) officials on October 12 and 26, 2023 and members of the NOC Subcommittee on October 30, 2023. The FAA appreciates the initial feedback provided by the NOC in their November 29, 2023, and January 31, 2024, letters to the FAA.

In addition to the three official design meetings, the FAA's Air Traffic team recently reviewed the procedural recommendations submitted by the NOC in a workgroup meeting with aviation stakeholders on February 6, 2024. Any procedural suggestions that were feasible and did not negatively impact safety or efficiency, were assessed for consideration in the final procedures.

Recommendations received from the NOC, whether they were feasible or not, will be summarized and posted after the NEPA process is complete on the MSP community involvement website which will also feature updates, resources and other related documents throughout the full life cycle of the project. We will also post project updates on this website and the final outcome of the environmental process as required by NEPA.

Moving forward, the FAA remains committed to multi-faceted engagement for community engagement purposes. The FAA will work with the MAC and NOC to conduct public outreach sessions in 2024. The FAA appreciates the NOC's provided suggestions to the FAA on when to hold these sessions in their January 31, 2024, letter to the FAA.

The FAA is committed to making complete, open, and effective public participation an essential part of this process. These sessions will include materials showing the proposed new procedures, feature a question-and-answer session with air traffic controllers, and provide explanations of the changes being proposed. The FAA will ensure the dialogue with the general public is two-way and that suggestions received during these sessions are considered for final procedure designs. We look forward to continuing to partner with MAC, NOC, and other stakeholders to ensure that participation is successful.

Specific to the initial feedback contained in your January 31, 2024, letter, the FAA has provided the below responses:

Provide opportunities for meaningful public engagement

1. Provide a public comment period of up to 90 days related to FAA's proposed procedures and resultant environmental review to allow members of the public sufficient time to be informed and equipped to participate in the FAA's comment process.

FAA Response:

We will ensure our public engagement approach is in accordance with all applicable laws.

2. In order to have broad and effective outreach, the NOC would like the FAA to avoid scheduling its public workshops during major holidays.

FAA Response:

The FAA has committed to scheduling public engagement sessions on days other than major holidays.

3. As noted in the FAA's January 5, 2024, response to the NOC's recommendations submitted on November 29, 2023, the FAA plans to hold virtual open houses due to the FAA's perspective that they are convenient, provide greater reach and flexibility and are more cost effective. The NOC recommends the FAA provide in- person FAA personnel for at least one hybrid public workshop, as this would honor the points raised by the FAA and offers the most inclusivity by being accessible.

FAA Response:

Thank you for your input on this important matter. The FAA will consider this recommendation as the level of environmental approach under NEPA has been determined.

Increase transparency and communicate effectively

4. As the governmental agency responsible for this project, FAA is the appropriate lead to actively communicate and engage with the public regarding FAA's proposed procedure updates. Community leaders should not be put in the position of representing the FAA's project.

FAA Response:

The FAA looks forward to serving as the lead for community engagement with the assistance of both public and private entities that assisted with the project design. While the replacement of outdated technology by the FAA is the primary driver for the updates to MSP procedures, and as such will be the lead for community engagement, the working group comprised of both public and private entities has developed many of the specific details to support implementation. In addition, the safety and efficiency benefits of the project impact multiple stakeholders including the FAA, industry, and the airport. As such, we would encourage all entities represented by the working group membership to actively support communication planning as well as community outreach and engagement activities.

5. Prior to public workshops, the NOC recommends the FAA develop a short video presentation to share simple and concise information about what RNAV is and what process the FAA will follow to develop, study, and implement the new procedures.
6. The NOC recommends the FAA communicate the benefits that the FAA identifies associated with implementation of its proposed procedures, including unrestricted climbs that may help offset some of the noise impacts on the new flight paths.

FAA Response to the two above items:

The FAA is committed to ensuring that the public is able to obtain information about this project at this early stage and looks for ways for the public to do so from their personal computer, smartphone, library computer and other web-enabled device anywhere in the world. The FAA has recently updated our *Community Engagement – Minneapolis-St. Paul* [webpage](#). In line with NOC's recommendation, the FAA added a video to that webpage that provides a comprehensive overview of the project. The FAA will update this webpage as details of the project are developed, including opportunities for community input.

7. The NOC recommends the FAA include all common airport configurations in its analysis and public presentation materials to ensure the public has a full picture of how the new procedures may be used. Specifically, the NOC would like to see the following configurations be included: North Flow (arrivals and

departures on Runways 30L and 30R and arrivals on Runway 35); South Flow (arrivals and departures on Runways 12L and 12R and departures on Runway 17); and Mixed A (arrivals and departures on Runways 30L and 30R and departures on Runway 17).

FAA Response:

The FAA appreciates this feedback and will consider this for its public outreach sessions.

Effectively communicate environmental impacts

8. The NOC requests the FAA explain the process used to determine the appropriate level of environmental review for the project and carefully consider Environmental Justice, Socioeconomic, and Extraordinary Circumstance factors when making this determination. There are census tracts in the region which are recognized as overburdened, underserved, and disadvantaged by the Climate and Economic Justice Screening Tool. Additionally, due to the history of RNAV in this community, there may be potential for “substantial dispute involving reasonable disagreement over the degree, extent, or nature of a proposed action’s environmental impacts or over the action’s risks of causing environmental harm.”
9. Publish a robust environmental review document for public access and transparency, including an executive summary, and present these findings to the public, regardless of the level of review that FAA deems appropriate for the project.
10. Given the community’s long-standing history of active involvement regarding noise issues at MSP, the NOC recommends the FAA model and present the changes in the noise environment that residents can expect to observe from the FAA’s implementation of its proposed procedures, regardless of whether the impacts meet FAA’s level of significant noise impact threshold.

FAA Response to the above three items:

When complying with NEPA obligations, FAA follows the regulations issued by the Council of Environmental Quality (CEQ), which apply to all federal agencies, as well as the agency-specific instructions regarding NEPA implementation contained in FAA’s Order 1050.1F: *Environmental Impacts: Policies and Procedures*. That Order identifies the potential environmental impacts that must be analyzed during the environmental review including noise, socioeconomics, and environmental justice that the NOC has highlighted for consideration. The FAA follows the process for determining the appropriate level of environmental review, based on the potential environmental impacts, identified in the Order. Regardless of the level of environmental review, FAA has committed to engaging the public during the environmental review process and public comment period. The FAA will provide information on noise impacts.

Identify additional opportunities for proposed procedures to reduce overflight concentration over Neighborhoods *(The FAA's below responses are part of an early dialogue with the NOC and community. Final decisions cannot be reached until the conclusion of the NEPA process.)*

11. The NOC recommends the FAA not create a concentrated RNAV departure path for straight-out departures from Runway 17, in consideration of the areas currently impacted by arriving aircraft to Runway 35.

February 6, 2024, Workgroup Response:

The current proposed procedures from runway 17 either turn to a 120, 135, 150, or a 220 heading. There are no proposed departures that continue straight out on a 170 heading. If changes to this design occur during development, due to safety criteria and other procedure development factors, we will advise the NOC.

12. The NOC appreciates the efforts by the FAA to use VI-CF legs to concentrate aircraft activity within the established boundary of the Eagan-Mendota Heights Corridor. The same departing aircraft overfly residential land uses within the corridor and as they exit the end of the corridor, where aircraft concentration would not be beneficial. Therefore, the NOC recommends the FAA evaluate VA-DF leg types for greater dispersion as an alternative to the proposed VI-CF for Runways 12L and 12R departures.

February 6, 2024, Workgroup Response:

The workgroup agreed that the use of a VI-CF vs a VA-DF leg did not impact safety or efficiency for Air Traffic. The workgroup agreed to change the initial legs to VA-DF. We are striving to incorporate this change into the design.

Identify additional opportunities to enhance use of existing noise abatement practices

13. During South Flow operations, aircraft departing with a 120-degree heading from Runway 12L utilize the established noise abatement procedure, Crossing-in-the-Corridor. This benefits surrounding communities by directing aircraft over more compatible land in the center of the Eagan-Mendota Heights Corridor. Since RNAV provides more precise and predictable routes and the FAA has stated that during South Flow operations Runway 12R is only used for departures when operationally necessary, the NOC recommends the FAA assign a 120-degree heading to additional Runway 12L RNAV departures to route aircraft over the center of the corridor without increasing overflights over residential areas of Sunfish Lake.

February 6, 2024, Workgroup Response:

Moving additional departure procedures to an initial 120-degree heading will result in reduced efficiency at MSP. Using divergence, an aircraft can depart following another aircraft if their courses diverge and the preceding aircraft is 6000ft down the runway and airborne. If aircraft are flying the same path, the second aircraft cannot depart until the first aircraft is 3 NM away. The 120 initial heading is used for the busiest departure plus several others. Moving the second busiest departure, the COULT, to that heading would reduce overall airport efficiency.

14. Aircraft departing over the Minnesota River reduces the instances of aircraft overflying residential areas. The NOC recognizes the FAA's high use of the existing Runway 17 turn point noise abatement procedure to keep westbound turns over the Minnesota River today. The NOC recommends the FAA take this opportunity to keep Runway 17 departures that are designed to fly over the Minnesota River, over the river for as long as possible before flying over homes and other noise sensitive areas.

February 6th, 2024, Workgroup Response:

The workgroup evaluated the currently designed procedure that is down the river and further adjustments would either not meet design criteria or create an issue with arrival aircraft on the downwind for runway 12R. Further changes would not allow departures to continue climbing due to the need to descend arrivals to get into the proper position to be established on a stabilized approach.

15. The NOC recommends the FAA's procedures minimize shifts in flight patterns that may be due, in part, to planes staying on runway heading longer than they do today. Staying on runway heading may lead to shifts in areas of overflights and conflicts with a noise abatement principal of the MAC and NOC, which is to reduce straight out departures over communities already impacted by arrival noise. Using a 500-foot per nautical mile (NM) climb gradient may allow an aircraft to initiate a turn on course closer to the departure end of the runway. The NOC recommends the FAA evaluate a 500-foot per NM climb gradient.

February 6, 2024, Workgroup Response:

All the departures that have a turn of more than 15 degrees from the end of the runway are designed with a 500 ft/NM climb gradient until Lateral Navigation Engagement (LNAV) by the Flight Management System (FMS) to initiate the turn within 1 NM of the runway end.

Identify additional opportunities for proposed procedures to replicate existing flight paths

16. Currently, only departure procedures with 230-to-285-degree headings for Runway 17 are designed with altitude restrictions at seven nautical miles DME (distance measure equipment). Commonly used Runway 17 departure headings of 120-to-170-degrees are not currently designed with a crossing restriction. The NOC requests that Runway 17 departure procedures that do not require altitude restrictions be designed without waypoints at seven miles, to replicate existing procedures and continue to disperse aircraft departures to the extent feasible.

February 6th, 2024, Workgroup Response:

The current procedures do not meet the full needs of air traffic and the crossing restrictions are currently needed. Air traffic needs to continually monitor these aircraft to make sure that they are clear of adjacent airspace. The restrictions will also require the aircraft to climb at a higher climb gradient and gain altitude faster. An aircraft without the restriction could climb at the minimum required climb gradient of 200 ft/NM. Also, having a few procedures that are different from the majority introduces risk into the National Airspace System.

17. The westbound (260-degree) heading off Runways 30L and 30R overflies residential areas to the north and west of the airport. The NOC understands from the FAA that the new RNAV procedures may concentrate flight paths as aircraft approach the proposed first waypoints if aircraft are not vectored off the initial 260-degree heading. To prevent concentration near the first waypoint, the NOC recommends that the FAA evaluate opportunities for designing the procedures with the goal of spreading out tracks, replicating existing aircraft dispersion, and preventing concentration. Opportunities may include air traffic controllers turning aircraft off the 260-degree prior to reaching the first waypoint for departures ultimately going south- and southeast-bound, shifting the location of the first waypoint, or identifying additional headings.
18. Similar to the point above, the NOC recommends the FAA evaluate opportunities to spread out tracks and prevent concentration in residential areas off the end of the Eagan-Mendota Heights Corridor. Opportunities may include air traffic controllers turning aircraft off the 105-degree heading for aircraft departing Runway 12L after exiting the Eagan-Mendota Heights Corridor and prior to reaching the proposed first waypoint, similar to how most departures operate today.
19. In keeping with the points above, the northeast bound (340- and 360-degree) headings off Runways 30L and 30R overfly residential areas to the north and east of the airport. The NOC recommends that the FAA evaluate opportunities to spread out tracks, prevent concentration, and replicate aircraft dispersion experienced today in these residential areas. Opportunities may include air traffic controllers directing aircraft on these headings similar to how most departures operate today, shifting the location of the first waypoints, or identifying additional headings.

February 6, 2024, Workgroup Response to the three above items:

According to FAA Job Order, 7110.65AA, the primary purposes of the ATC system is to prevent a collision involving aircraft operating in the system. In addition to its primary purpose, the ATC system also provides a safe, orderly, and expeditious flow of air traffic in and out of MSP. Air Traffic Control will continue to control aircraft, as close as possible as is done today, and as requested in procedure design workgroup meetings initially by the MAC. Air traffic wants to get aircraft on course and heading towards their destination as soon as safely possible. In addition, procedure design only allows for one runway transition per runway per departure procedure.

To meet the necessary air traffic charting deadlines, the FAA is working towards a goal of publishing the new procedures by August 2025. However, as part of our ongoing dialogue and workgroup meetings which included the MAC who has continuously expressed the goals of the NOC, we have discussed a common goal of ensuring existing dispersed pathways above MSP's surrounding communities remain consistent with what they are today - provided they meet FAA safety criteria and operational requirements.

Future Steps

We look forward to continuing our dialogue with the MAC, NOC, and other stakeholders. The MAC and the NOC will play a vital role with the FAA to develop and discuss timing of next steps as well as planning for public engagement sessions.

Sincerely,

Erik Amend, PMP
Regional Administrator
Great Lakes Region

A handwritten signature in black ink, appearing to read "Erik Amend". The signature is fluid and cursive, with the first name "Erik" and last name "Amend" clearly distinguishable.

Cc: Bryan Ryks, MAC
Roy Fuhrmann, MAC
Naomi Pesky, MAC
Evan Wilson, MAC
Dana Nelson, MAC
Mitch Kilian, MAC
Kyle Fisher, MAC
Michele Ross, MAC