

# MSP Spring 2026 Listening Session

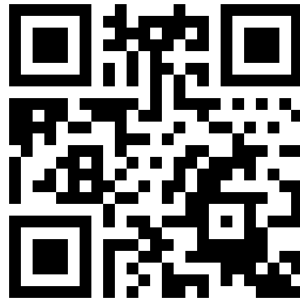


April 22, 2026

# Agenda

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- 6:00 – Welcome
- 6:05 – Introductions
  - What is your name? Where do you live?
- 6:10 – MAC Presentation
  - What is the NOC?
  - Weather Impacts on Operations and Noise
- 6:30 – Open Conversation
- 6:55 – Closing Feedback
  - Survey: How can we improve?



# Roles and Responsibilities



## U.S. Congress

- Passes laws that govern aviation in the U.S.



## Federal Aviation Administration (FAA)

- Regulates airports
- Regulates airlines
- Operates Air Traffic Control (ATC) facilities



## Airlines

- Transport people and products domestically and internationally
- Determine number of flights, aircraft types, routes, and flight times based on market demands



## Metropolitan Airports Commission (MAC)

- Owns and operates MSP and six reliever airports
- Provides a facility for airlines to conduct air commerce activities
- Does not determine where aircraft fly, runway use, or flight procedures



# MSP Noise Oversight Committee (NOC)



# MSP NOC

- ✈ Established in 2002
- ✈ 6 Community Representatives
- ✈ 6 Airline Industry Representatives
- ✈ Balanced forum and advisory committee to the MAC Board



# MSP NOC



## Mission

- Identify, study, and analyze airport noise issues and solutions
- Provide policy recommendations or options to the MAC
- Monitor compliance with established noise policy at MSP
- Ensure the collection of information and dissemination to the public

## Meetings

- Bimonthly (i.e.: January, March, May, etc.)
- Next: May 20, 2026, 1:30pm

# Spring Weather Impacts on Operations and Noise



# Minnesota Spring Weather Impacts to Operations

- Spring is **windiest** season of the year.
- Windiest months: #1 March, #2 April
- Windiest period: March 20 – April 5

- Wind shifts at MSP during spring:
  - Predominantly out of the **north** March – Early May.
  - Predominant out of the **south** Mid May

- Aircraft takeoff and land into the wind for safety.

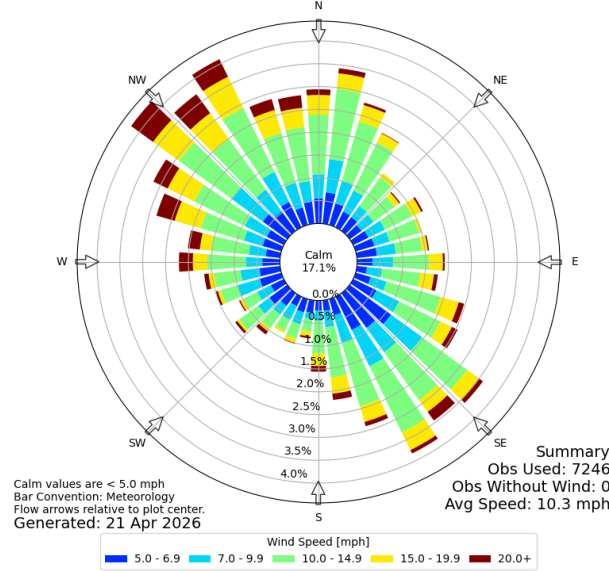
- Air Traffic Control prioritize runways when conditions permit.

- Runway Use System (RUS) Priority:
  - Departures: 12L/R, 17, 4-22, 30L/R
  - Arrivals: 30L/R, 35, 4-22, 12L/R

- Avg. Runway Use (Spring 2016-2025):
  - North Flow: **33%**
  - Mixed Flow: **8%**
  - South Flow: **42%**
  - Other **17%**

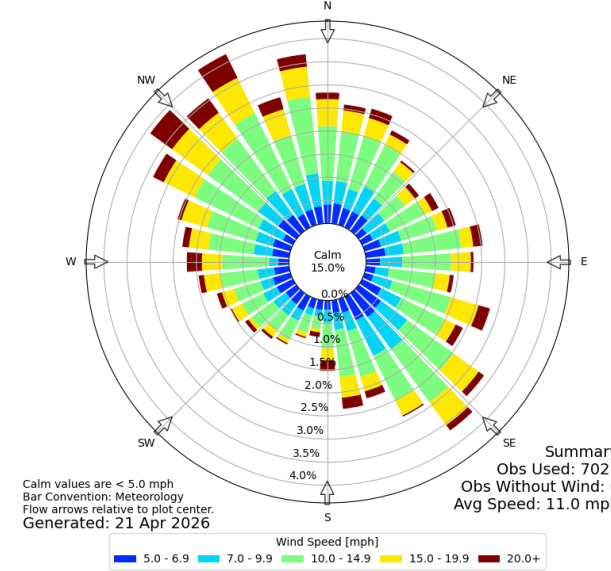
### MSP March Winds 2016-2025

Windrose Plot for [MSP] MINNEAPOLIS  
Obs Between: 01 Mar 2016 12:53 AM - 31 Mar 2025 11:53 PM America/Chicago  
Constraints: Mar



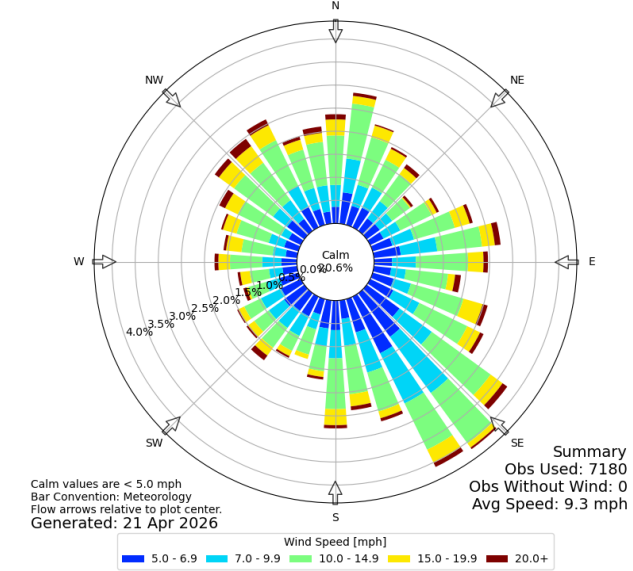
### MSP April Winds 2016-2025

Windrose Plot for [MSP] MINNEAPOLIS  
Obs Between: 01 Apr 2016 12:53 AM - 30 Apr 2025 11:53 PM America/Chicago  
Constraints: Apr

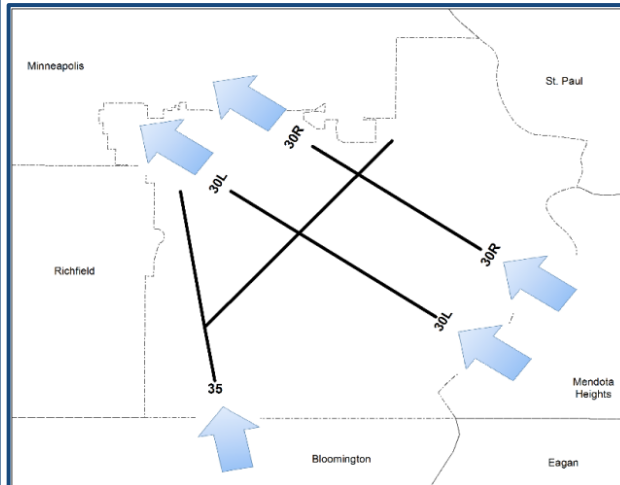


### MSP May Winds 2016-2025

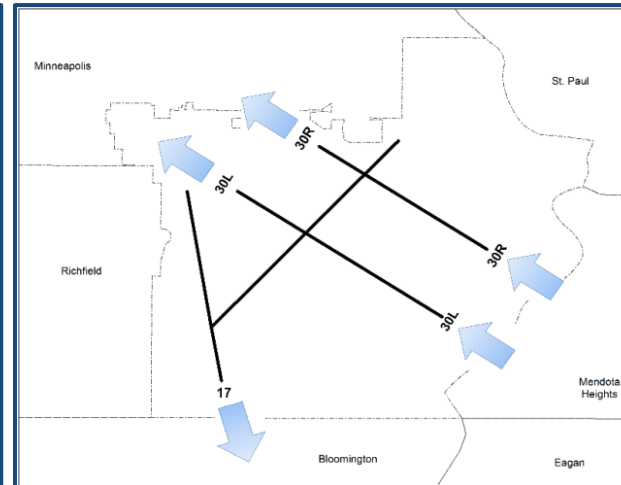
Windrose Plot for [MSP] MINNEAPOLIS  
Obs Between: 01 May 2016 12:53 AM - 31 May 2025 11:53 PM America/Chicago  
Constraints: May



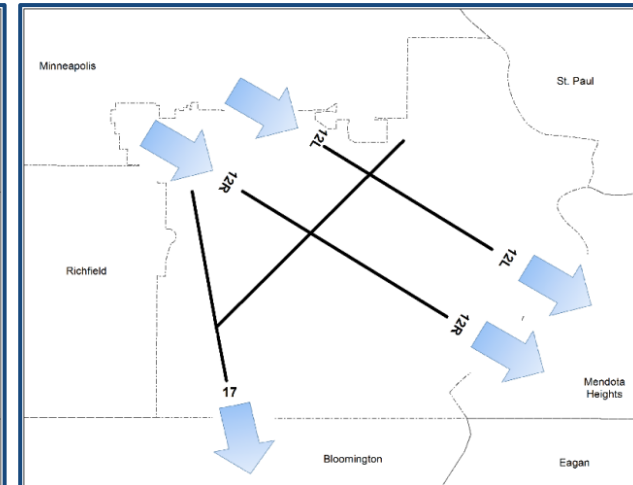
### “North Flow” = Winds from North / West



### “Mixed Flow” = When conditions permit / dictate



### “South Flow” = Winds from South / East



# Minnesota Spring Weather Impacts to Noise

## WIND



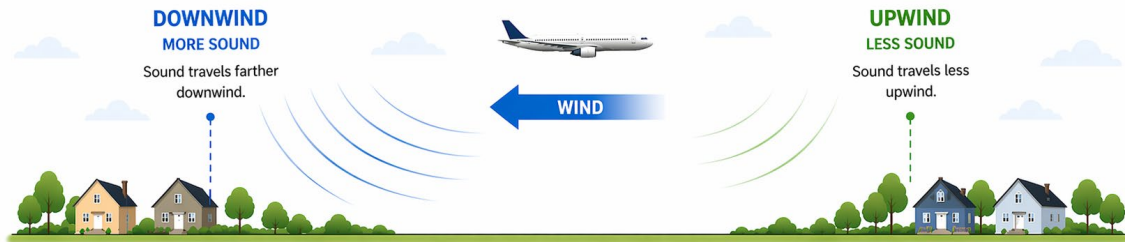
Aircraft take off and land into the wind, which can shift flight paths



Sound travels farther downwind and less upwind



Frequent spring wind changes can shift where noise is experienced



## CLOUD COVERAGE



Low clouds can reflect sound downward

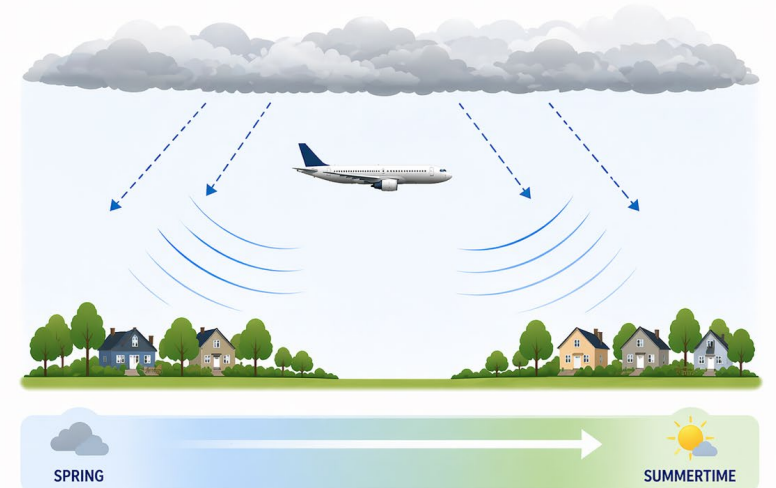


This can make aircraft noise seem:

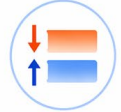
- louder
- more persistent



Minnesota cloud coverage typically decreases during spring into summertime.



## TEMPERATURE INVERSION



Temperature inversions (common in mornings/evenings) where air near the ground is cooler than air at altitude.



Difference in air density can:

- deflect sound back toward the ground
- make aircraft seem louder or closer



WARM AIR  
LESS DENSE  
Warmer air at altitude

INVERSION LAYER  
Acts like a lid, trapping sound waves below

COOL AIR  
MORE DENSE  
Cooler air near the ground



Soil heat absorption  
Ground cools after sunset



Cooling lake effects  
Cooler air forms over water



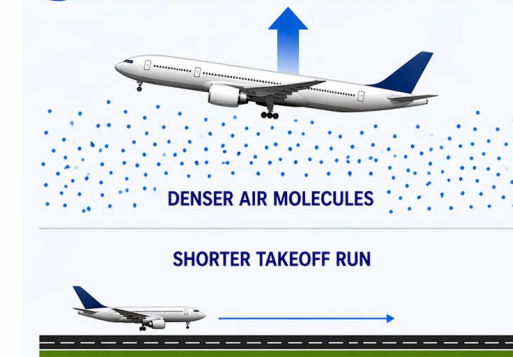
Upper jet streams  
Can contribute to inversion formation

## TEMPERATURE & AIRCRAFT PERFORMANCE



### COOLER TEMPERATURES

More lift

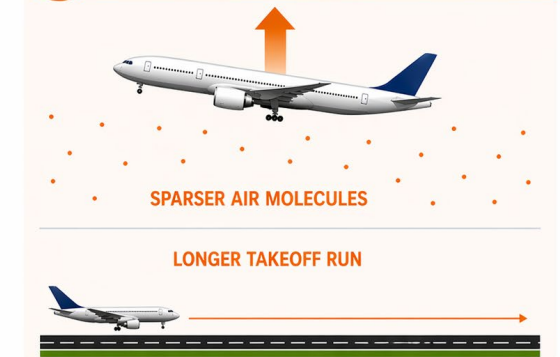


SHORTER TAKEOFF RUN



### WARMER TEMPERATURES

Less lift



LONGER TAKEOFF RUN



Warmer temperature means less efficient aircraft performance, which leads to longer takeoff runs, slower climb rates, and higher engine power levels.

# Open Conversation



# Announcements

- NOC Meeting
  - May 20, 2026
  - 1:30 pm MAC General Offices and via Teams
- Noise News – sign up to get latest information

More information at:  
[metroairports.org/community-connection/aircraft-noise](https://metroairports.org/community-connection/aircraft-noise)



# Please let us know how we are doing

- Please take our survey:
- What did you enjoy about this meeting?
- What suggestions do you have to improve?

