



NOC Winter Listening Session

Metropolitan Airports Commission

January 30, 2018

MEETING AGENDA

7:00 Welcome/Introductions

What is your name? Where do you live?

7:25 MAC Presentation

7:50 Open Dialogue

8:30 Closing Feedback

What did you like / dislike about the meeting format?





PRESENTATION OUTLINE

- Partnerships with Airport Neighbors
- Trends in MSP Airport Operations
- Noise Impact Metrics and Thresholds
- MAC's Efforts for Increased Transparency and Information Sharing
- Super Bowl Flight Activity Update



PARTNERSHIPS WITH AIRPORT NEIGHBORS





MSP NOISE OVERSIGHT COMMITTEE (NOC)



Community Representatives

- Minneapolis
- Richfield
- Bloomington
- Eagan
- Mendota Heights
- At-Large Representative
 - Apple Valley, Burnsville, Edina, Inver Grove Heights, St. Paul, St. Louis Park and Sunfish Lake

Industry Representatives

- Scheduled Airlines
- Cargo Carrier
- Charter Operator
- Chief Pilot
- Minnesota Business Aviation Association
- At-Large Representative

- NOC brings policy recommendations regarding aircraft noise issues to the MAC Board
- NOC viewed as an industry model in reaching collaborative solutions to aircraft noise impacts

NOC MISSION

Identify, study and analyze airport noise issues and solutions

Provide policy recommendations or options regarding airport noise issues to the MAC PD&E Committee

Monitor compliance with established noise policy at MSP

Ensure the collection of information and dissemination to the public



RECENT COMMUNITY DRIVEN NOC EFFORTS



2016-2017

- Egan-Mendota Heights Corridor Turboprop Analysis
- 12L and 12R Arrival Study
- Expert Presentation on Aircraft Arrival Landing Gear Extension Procedures
- Investigate Noise-Reducing Landscaping Options
- Quantify Noise Reduction Benefits of Vortex Generators on Airbus Aircraft Arrivals at MSP
- Evaluate Distant Noise Abatement Departure Profile (NADP) Use at MSP
- Develop a New, or Append to an Existing Monthly Report, Evaluation of the Egan-Mendota Heights Corridor Turboprop Activity
- Evaluate Steeper Glide Slopes for Aircraft Arrivals

YTD 2018

- NOC focuses on results in response to requests from MSP FairSkies:
 - Establish a Subcommittee to review and recommend revisions to the NOC bylaws for simplifying the citizen input process at meetings
 - Establish a noise reduction goal –
 - Be the first airport in the United States to provide residential noise mitigation to the actual 60 dB DNL noise contour by 2024
 - MAC staff plans to commission an independent study of other US airports to provide insight for the NOC as it discusses appropriate noise reduction goals for MSP
 - Develop and publish a 55 dB DNL noise contour – TBD (for further discussion at the March 21 NOC meeting)



TRENDS IN MSP AIRPORT OPERATIONS



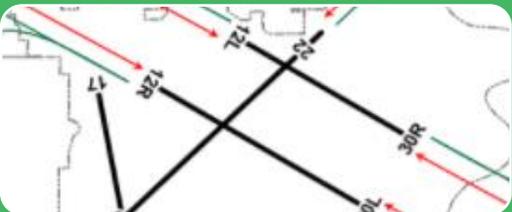
WHAT THINGS IMPACT NOISE?



Total number of flights



Number nighttime and early morning flights



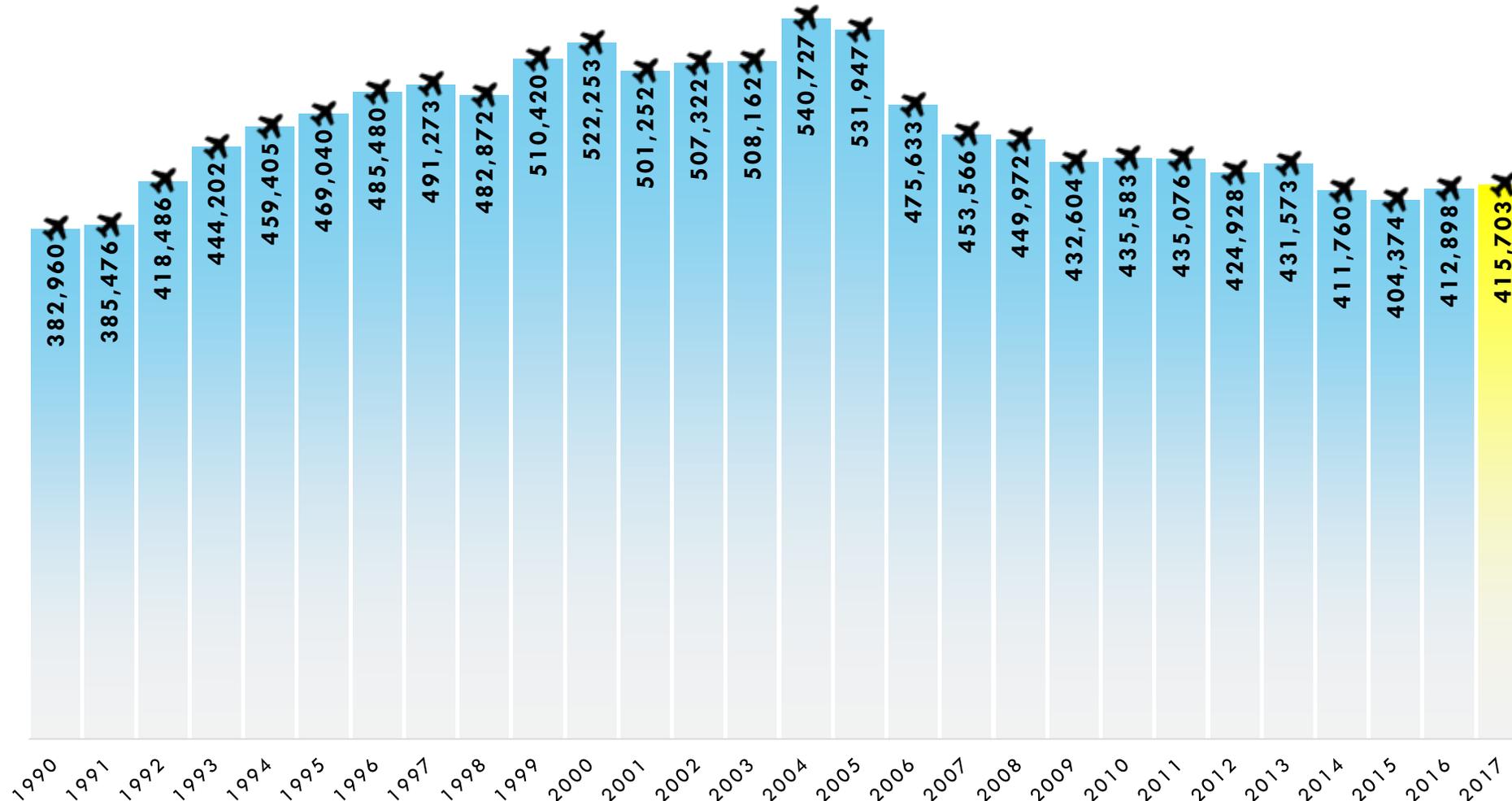
Runway use



Aircraft types



ANNUAL OPERATIONS 1990-2017



SOURCE: FAA OPSNET

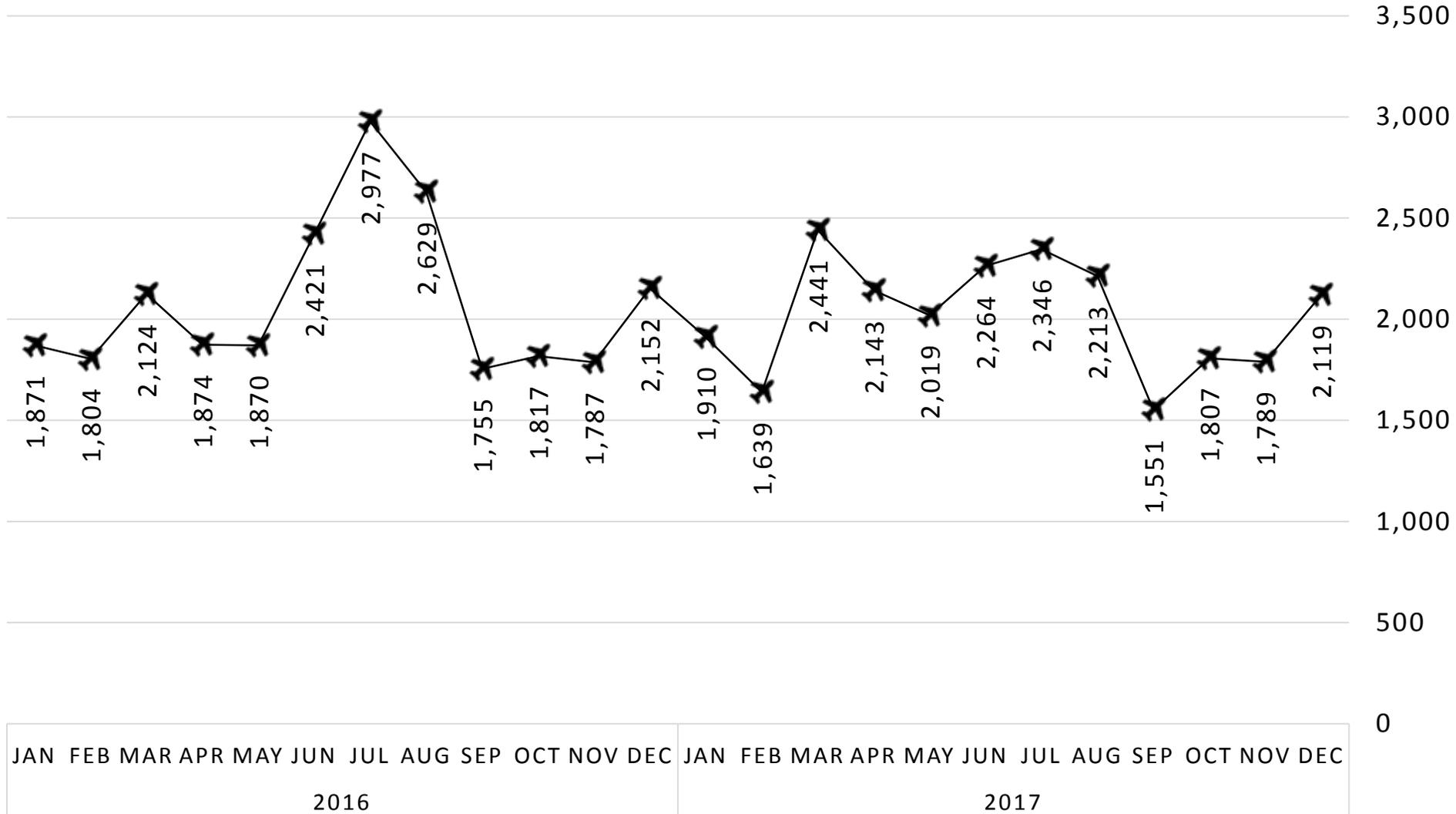
- MSP operations peaked in 2004 when more than **540,000** aircraft arrived or departed the airport
- MSP traffic level today is similar to **early 1990's levels**
- 2017 operations are **< 1%** above 2016



MONTHLY NIGHTTIME OPERATIONS

(10:30 PM – 6:00 AM)

- MSP does not have a mandatory curfew
- 2017 nighttime operations were **3.3% lower** than 2016
- MSP nighttime operations have declined by over **800 operations** from 2016 to 2017
- MSP nighttime operations have declined in **7 months** from 2016 to 2017

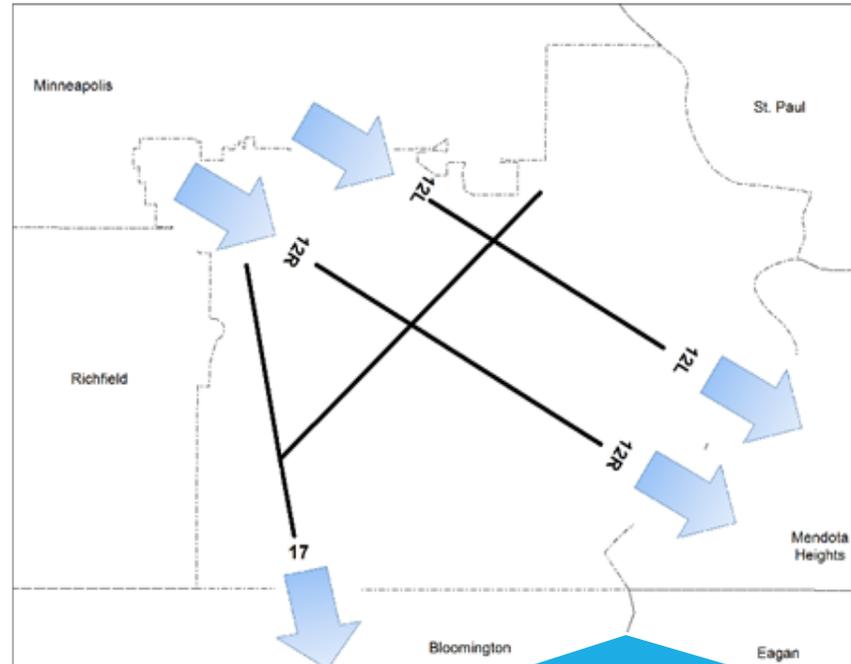


SOURCE: MACNOMS

RUNWAY USE

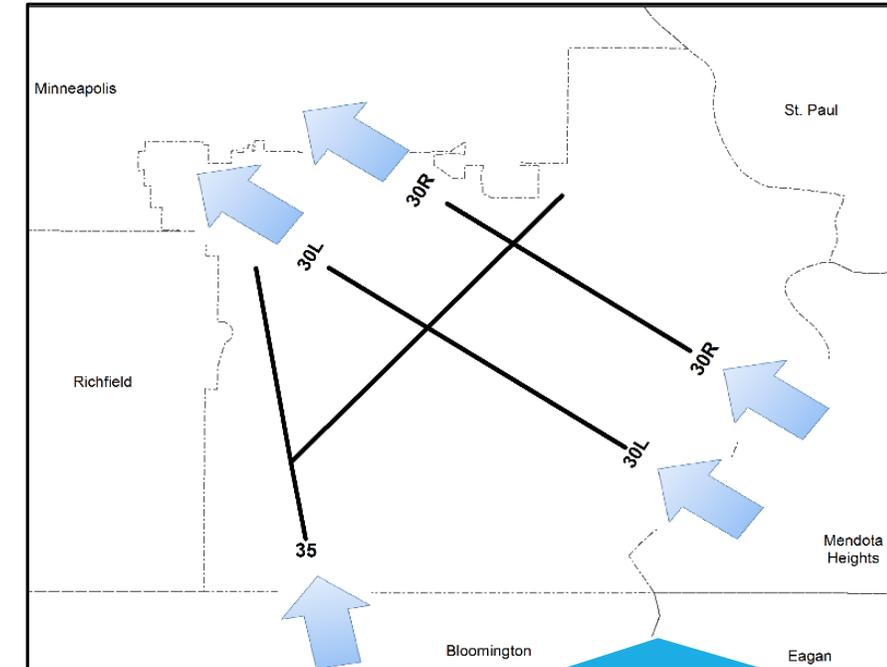


- Aircraft need to land and takeoff into the wind
- Updated CRO rules in 2016
- Resulted in increased South Flow operations:
 - ↑ Arrivals from North
 - ↑ Departures to South
- New technology and procedures applied: **January 2017**
- As a result 2017 had an **even balance** between time spent in South Flow and time spent in North Flow
- More time spent in mixed flows and opposite-direction, aimed to reduce flights over Minneapolis



South Flow Configuration

- Southern / Eastern winds
- More prevalent in the late Spring to Early Autumn

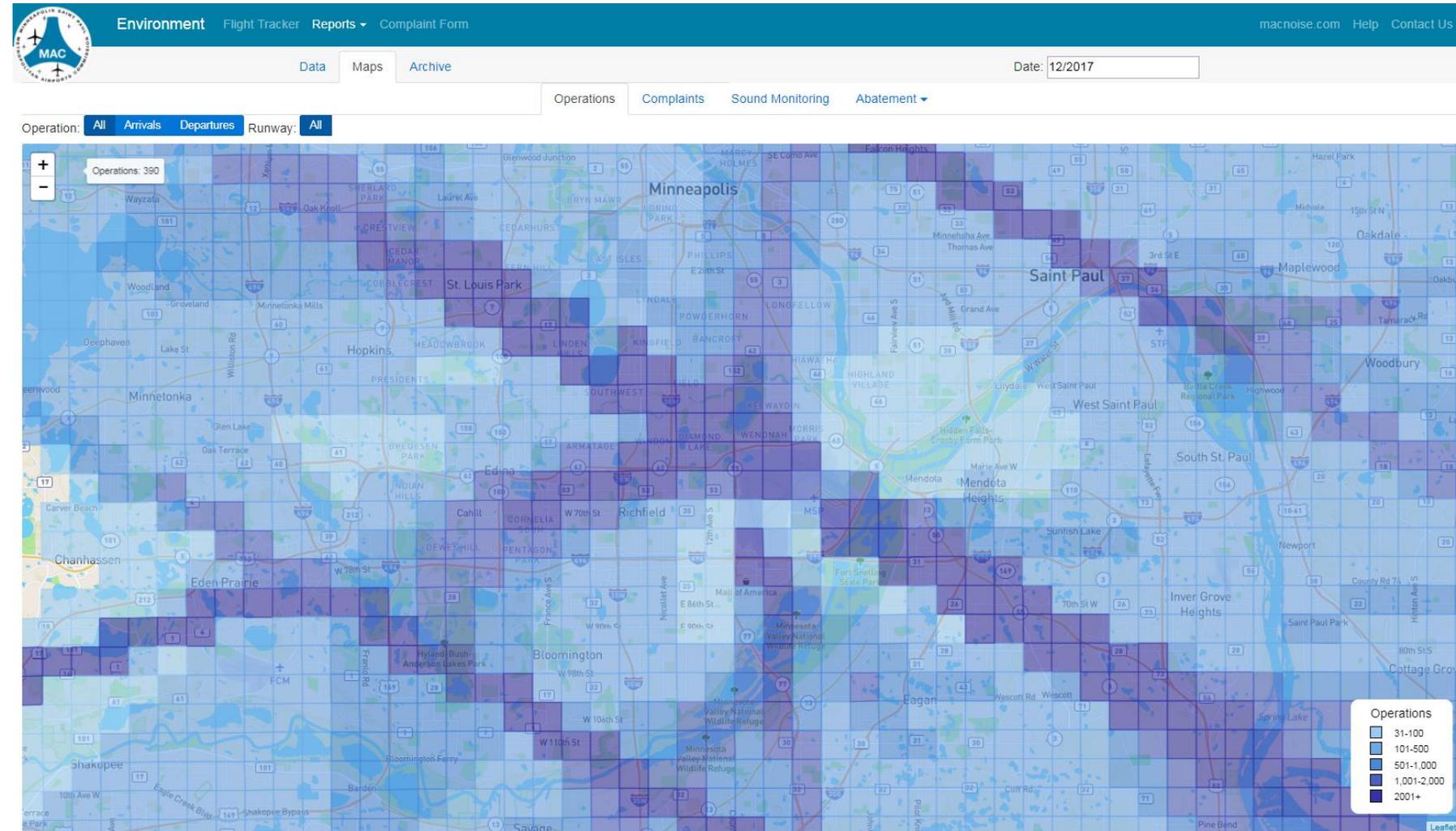


North Flow Configuration

- Northern / Western winds
- More prevalent in Late Autumn to Early Spring

RUNWAY USE

- The #1 runway for departures in 2017 was Runway 17, taking 31% of all departures
- The #1 runway for arrivals in 2017 was Runway 30L, taking 28% of all arrivals
- Minneapolis had 738 fewer flights in 2017 compared to 2016
- At night, there were 1,538 fewer flights over Minneapolis in 2017 compared to 2016



Visit our new online reports to take a closer look at your house - www.macenvironment.org/reports/

QUIETER AIRPLANES



A320 NEO

**50% reduced noise
compared to current A320¹**

Spirit – Operating 5 aircraft
55 more on Order
Frontier – Operating 15 aircraft



B737 Max

**Designed to be 40% Quieter
than today's 737²**

Southwest – 200 on Order; Began MSP
operations in October 2017
American – 4 Delivered, 96 on Order
United – 165 on Order



CS-100

**Quietest commercial jet in
its class³**

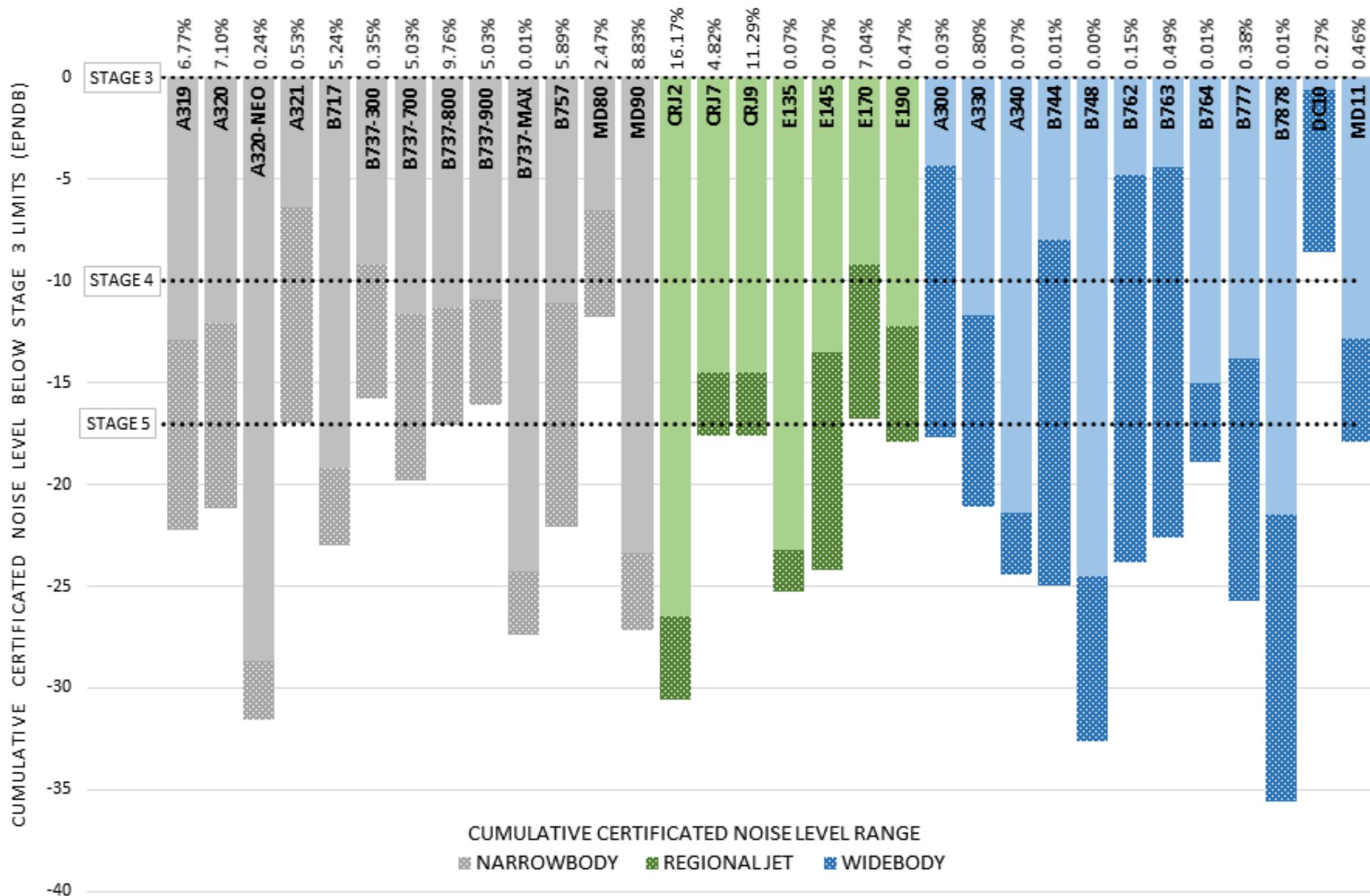
Delta – 75 on Order
– 50 more options

1 - https://www.lufthansagroup.com/fileadmin/data/themen/a320neo/LHG_Infografik_Laermkontur_EN.pdf

2 - <http://www.boeing.com/features/2016/09/737max-noise-09-16.page>

3 - <http://www.bombardier.com/en/media/newsList/details.tests-confirm-bombardier-c-series-aircraft-is-quietest-commercial.bombardiercom.html>

2017 MSP CARRIER JET USAGE WITH CUMULATIVE CERTIFICATED NOISE LEVELS



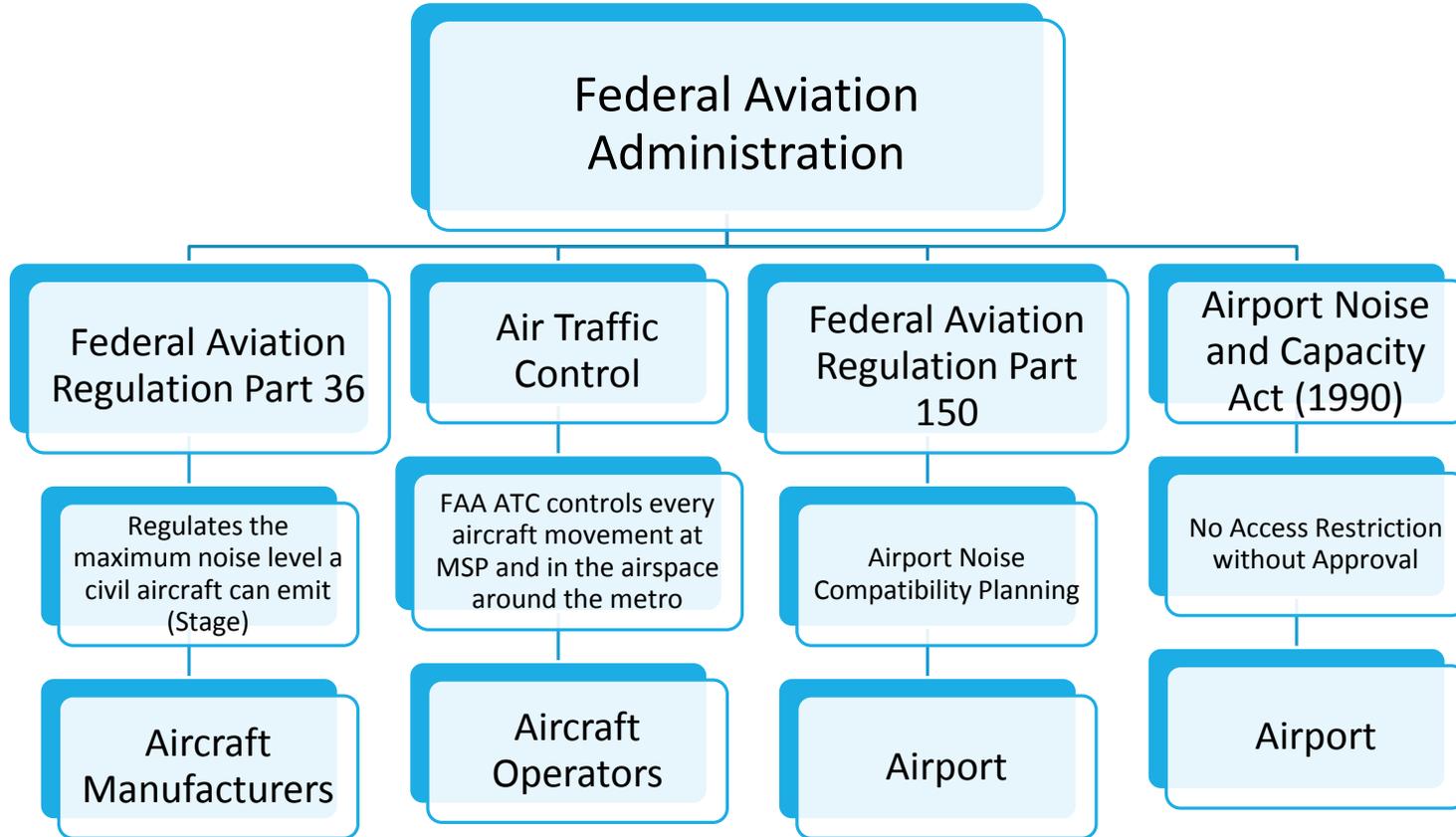
SOURCE: USAGE DATA: MACNOMS; NOISE CERTIFICATION DATA: EUROPEAN AVIATION SAFETY AGENCY

CUMULATIVE CERTIFICATED NOISE LEVELS REPRESENTED AS A RANGE TO ACCOUNT FOR MULTIPLE CERTIFICATION VARIABLES (WEIGHT, MODEL, ENGINE TYPE, AIRFRAME CONFIGURATION, ETC)

NOISE IMPACT METRICS AND THRESHOLDS



NOISE REGULATION



DAY – NIGHT AVERAGE SOUND LEVEL (DNL)

DNL (Day-Night Average Sound Level) is the FAA-mandated metric for assessing aircraft noise impacts around U.S. airports. The DNL metric is used to determine eligibility in Residential Noise Mitigation programs per the FAA.



RESIDENTIAL NOISE MITIGATION



63 dB DNL

- Homes around MSP at 63 dB DNL or greater have been eligible to receive a 5-decibel reduction package

60 dB DNL

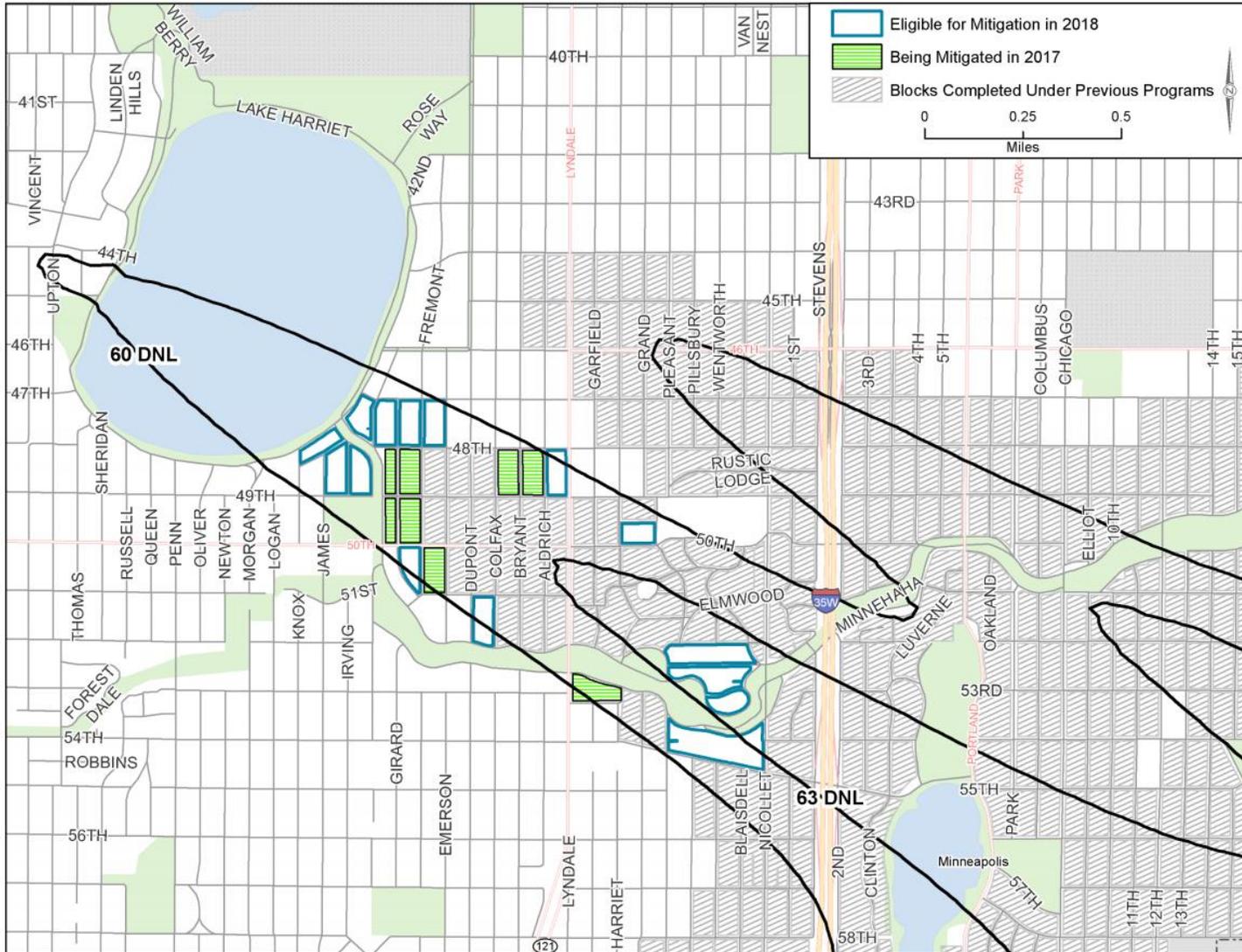
- MSP is the only U.S. airport that has residential noise mitigation provided to residents inside the actual 60 dB DNL contour and evaluates it on an annual basis

Residential Noise Mitigation

- Residential units that have been inside the 60 dB DNL noise contour, within a higher noise impact area when compared to the previous program for 3 consecutive years will be eligible for additional mitigation



RESIDENTIAL NOISE MITIGATION



- Eligibility is evaluated and reported by March each year at www.macnoise.com
- In 2017, the MAC provided mitigation to 79 homes and plan to complete and additional 334 homes this year
- To-date the program has provided mitigation to over 15,000 homes, nearly 3,300 multi-family units and 19 schools at a total cost of close to \$500 million
- The MAC is committed to continue providing mitigation activities at this level until 2024

Visit our interactive eligibility map on our website by going to “Do I qualify for Home Noise Mitigation?”

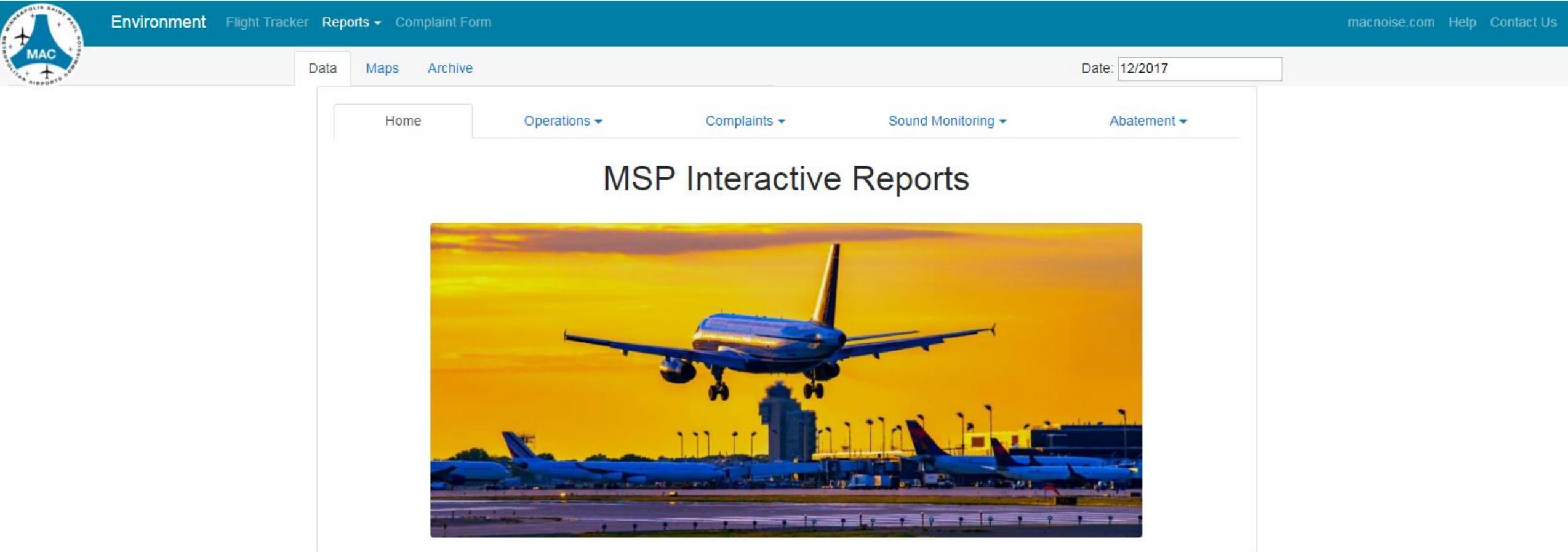
MAC'S EFFORTS FOR INCREASED TRANSPARENCY AND INFORMATION SHARING



TRANSPARENCY

New Interactive Reports website at macenvironment.org

- Information updated daily
- New tools designed for residents
- Alternate noise metrics easily accessible

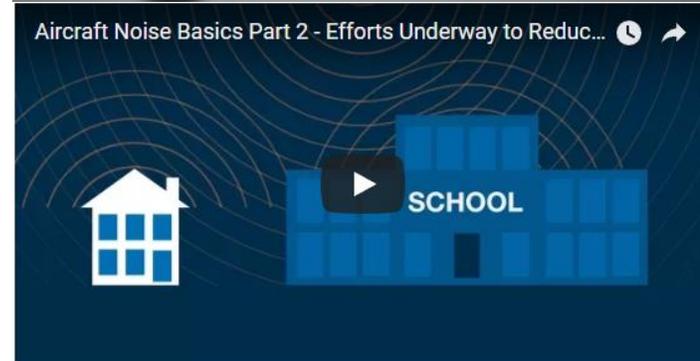


The screenshot displays the website interface for the Metropolitan Airports Commission (MAC) Environment department. The top navigation bar includes links for Environment, Flight Tracker, Reports, and Complaint Form. A date filter is set to 12/2017. The main content area features a navigation menu with Home, Operations, Complaints, Sound Monitoring, and Abatement. The central heading is "MSP Interactive Reports", and the main image shows a large commercial airplane in flight over an airport tarmac at sunset.

INFORMATION SHARING

4-Part Aircraft Noise Basics Videos and Fact Sheets

- Part 1: Who Makes the Decisions?
 - Part 2: Efforts Underway to Reduce Aircraft Noise
 - Part 3: MSP Noise Oversight Committee: Collaboration at Work
 - Part 4: How are Runway Decisions Made?
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- Quarterly Listening Sessions
 - **Stay Informed** – receive MSP Noise News updates by subscribing at macnoise.com



SUPER BOWL FLIGHT ACTIVITY UPDATE



What you can expect...



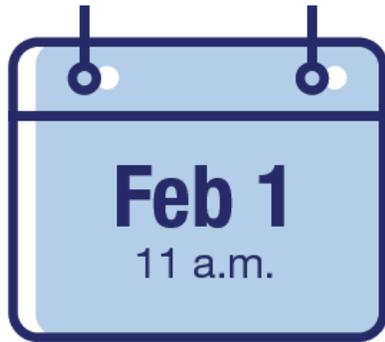
More flight activity at MSP is expected between Saturday, January 27 and Tuesday, February 6

- MSP expects to have 550 more corporate jet flights.
- Charter flights will bring in an additional 30-40 flights during the 11-day period.
- Commercial airlines regularly serving MSP are expected to fly larger planes in order to move more people.
- Low-flying helicopters conducting security surveillance may be seen from the ground and high-rise buildings in and around Minneapolis.
- Between 65,000 and 70,000 people are expected to fly out of MSP the Monday after the Super Bowl. That is roughly 20,000 more people than have flown out of MSP on a single day.



What you can expect...

The busiest times for aircraft arriving to MSP is



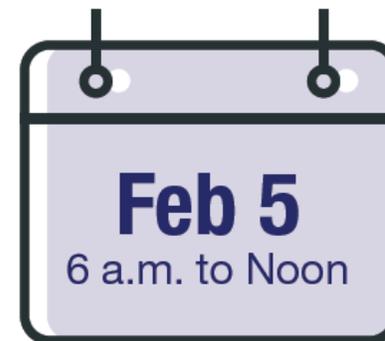
The busiest time for aircraft leaving MSP is expected to be



until



a lull,
then



What you can expect...

MSP Airport Super Bowl Operations Fact Sheet

You may have heard...

The Super Bowl is coming to Minnesota. The event is expected to draw thousands of people to the Twin Cities. For many, their first stop is the Minneapolis-St. Paul International Airport (MSP). MSP is preparing to meet the needs associated

with this event to ensure a high level of service for our passengers, while being mindful of neighboring communities. There are a few things we wanted to share so you know what to expect during this busy time.

What you can expect...

- More flight activity at MSP is expected between Saturday, January 27 and Tuesday, February 6 (The game is Sunday, February 4).
- During the eight days leading up to the game and two days after we expect to have 550 more flights operate in and out of MSP.
- The mix of airplanes will also be different than your average day; we expect a larger number of corporate jets, like the one pictured below.



- Charter flights will be popular and bring in an additional 30-40 flights occur during the 11-day period.
- Commercial airlines regularly serving MSP are expected to fly larger planes in order to move more people.
- Between 65,000 and 70,000 people are expected to fly out of MSP the Monday after the game. That is roughly 20,000 more people than have flown out of MSP on a single day.
- These flights are expected regardless of which teams are playing in the game.



- Flights will use the runways that are best aligned into the wind and will utilize the same flight paths as usual.
- The voluntary noise abatement procedures at MSP will be used to the greatest extent practical.
- The airport is expected to close Runway 4-22 to have extra space for parking airplanes.
- During the game, flights will be restricted for security purposes from operating in the area of US Bank Stadium.
- The network of smaller airports around MSP will also see a lot of activity and this could also contribute to flight patterns that are not normally seen – even in the area of MSP.

If you will be traveling during this time period, visit mspairport.com/SuperBowl for what you can expect at the airport.





Open Floor Conversation

Please fill out a comment card before you leave to let us know what you liked or disliked about this meeting format

SPRING LISTENING SESSION

MARCH 28, 2018

7:00 PM

MAC GENERAL OFFICES

