



Minneapolis-St. Paul International Airport Noise Oversight Committee (NOC)

NOC Committee Members

Jeffrey Hart – Co-Chair (Delta Air Lines)
Dianne Miller – Co-Chair, City of Eagan Representative (City of Eagan)
Ryan Barette – Minnesota Business Aviation Association Representative
Pam Dmytrenko – City of Richfield Representative (City of Richfield)
Chris Finlayson – At-Large Airport User Representative (Endeavor Air, Inc.)
Gordy Goss – Chief Pilot Representative (Delta Air Lines)
Brian Hoffman – At-Large Community Representative (City of St. Louis Park)
Todd Lawrence – Charter/Scheduled Operator Representative (Sun Country Airlines)
Dwayne Lowman – City of Bloomington Representative (Bloomington City Council)
Jay Miller – City of Mendota Heights Representative (Mendota Heights City Council)
Angie Moos – Cargo Carrier Representative (United Parcel Service)
Loren Olson – City of Minneapolis Representative (City of Minneapolis)

MEETING AGENDA

September 19, 2018 at 1:30 pm

**MAC General Office Building
Lindbergh Conference Room
6040 28th Avenue South
Minneapolis, MN 55450**

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

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

1. 1:30 Review and Approval of the July 18, 2018 Meeting Minutes
2. 1:35 Review of Monthly Operations Reports: July and August, 2018
3. 1:50 Public Comment Period
4. 2:10 Guest Speaker: MAC/MSP Update (Brian Ryks, MAC Executive Director/CEO)
5. 2:40 Guest Speaker: Boeing ecoDemonstrator (Doug Christensen, ecoDemonstrator Program Leader at Boeing Commercial Airplanes)
6. 3:20 Review of the Eagan Listening Session
7. 3:25 Eagan Mobile Noise Monitoring Study Request
8. 3:35 Review Final MSP Noise Management Benchmarking Study
9. 3:45 Draft 2019 Work Plan
10. Announcements
11. Adjourn

Public Comment Notice: A public comment period of no more than 20 minutes will be added to each agenda. Members of the public wishing to address the NOC during this period are allotted 3 minutes to speak. Please complete and submit a speaker card prior to the start of the meeting or have arrangements made with your NOC representative prior to the meeting date.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

SUBJECT: **REVIEW OF MONTHLY OPERATIONS REPORTS: JULY AND AUGUST, 2018**

DATE: August 5, 2018

Each month the MAC reports information on MSP aircraft operations, aircraft noise complaints, sound levels associated with MSP aircraft operations, and compliance with established noise abatement procedures on its interactive reporting website:

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

At the September 19, 2018 NOC meeting, MAC staff will provide a summary of this information for the months of July and August. To view these summary reports prior to the meeting, visit the Archives section at the link above.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

SUBJECT: **GUEST SPEAKER: MAC/MSP UPDATE (BRIAN RYKS, MAC EXECUTIVE DIRECTOR/CEO)**

DATE: September 5, 2018

At the September 19, 2018 NOC meeting, MAC Executive Director/CEO Brian Ryks will provide the NOC a MAC/MSP update.

Topics to be discussed include:

- MAC legislative mandate, governance and funding
- MAC Vision and Mission
- Recent accolades
- Trends in passenger and operational levels
- Recent and future improvements at MSP

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

SUBJECT: **GUEST SPEAKER: BOEING ECODEMONSTRATOR PROGRAM
(DOUG CHRISTENSEN, ECODEMONSTRATOR PROGRAM LEADER
AT BOEING COMMERCIAL AIRPLANES)**

DATE: September 5, 2018

At the September 19, 2018 NOC meeting, Boeings ecoDemonstrator Program Lead, Doug Christensen will give a presentation on the Boeing ecoDemonstrator Program. Mr. Christensen's biography is attached.

Boeing is the leading manufacturer of commercial and military aircraft combined. With its headquarters in Chicago, Boeing employs more than 140,000 people across the United States and in more than 65 countries. Today the company builds the 737 (featuring the new 737 MAX), 747, 767, 777 and 787 families of aircraft.

Boeing's ecoDemonstrator program takes a series of specially modified aircraft to develop and test aviation technologies and accelerate development to get them ready more quickly to use on future aircraft. Program goals focus on improving fuel economy and environmental performance (including noise reduction) and enhancing safety of future aircraft. The program began in 2012 and is now in its fifth iteration. Since its start, over sixty technologies have been tested under the program and each flight test was operated with a blend of biofuels approved for commercial aviation.

The 2018 ecoDemonstrator program is using a FedEx-owned Boeing 777 Freighter to test more than 35 technologies, including flight deck enhancements, compact thrust reversers and advanced materials.



Biography

Boeing Commercial Airplanes
P.O. Box 3707, MC 21-71
Seattle, Washington 98124-2207
www.boeing.com



Doug Christensen
ecoDemonstrator Program Leader
Environmental Performance Associate Technical Fellow

Doug Christensen is an Associate Technical Fellow and the Test Vehicle Program Manager for ecoDemonstrator technology demonstration vehicles. He is responsible for flight demonstration aircraft acquisition, technology demonstrations, and external ecoDemonstrator program activities. Doug is also leading technology demonstration collaborations with Embraer S.A. in Brazil.

Prior to his ecoDemonstrator role, Doug was the Technology Leader for Natural Laminar Flow wing and winglet design / build, and the CO₂ and Emissions Strategy Leader in Commercial Airplanes Product Development. He also led the development and maintenance for all of Boeing Commercial environmental technology development.

With a background in configuration design and analysis, Christensen spent the previous 15 years as an Aerodynamics Configuration Engineer and an Airplane Configurator in Commercial Airplanes.

Christensen graduated from Iowa State University where he received a Bachelor of Science degree in Aerospace Engineering. Prior to joining Boeing, Christensen worked for Northwest Airlines as a Senior Performance Engineer where he was on the team that integrated new aircraft into the Northwest fleet and developed numerous fuel burn reduction processes.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

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

DATE: September 5, 2018

One of the elements of the framework for the MSP Noise Oversight Committee (NOC) includes convening a quarterly meeting with the public. The primary goal of the meeting is to ensure residents' concerns are heard and considered as part of the ongoing effort by the MAC and the NOC to address noise and other topics around MSP.

On August 27, 2018 at 6:30 PM, a Listening Session was held at the Eagan Community Center. Forty residents attended the meeting, the majority of which were from Eagan. In addition to MAC staff the meeting was also attended by FAA MSP Air Traffic Management; FAA Great Lakes Region staff; Eagan Councilmember, Gary Hansen; Eagan City Administrator, Dave Osberg; Eagan Assistant City Administrator and NOC Co-Chair, Dianne Miller; two members of the Eagan Airport Relations Commission (ARC); NOC Co-Chair, Jeff Hart; Delta Chief Pilot and NOC Member, Captain Gordy Goss; Minnesota State Senator, Jim Carlson; Minnesota State Representative, Sandra Masin; and Sunfish Lake Mayor and NOC member Dan O'Leary.

Eagan City Councilmember, Gary Hansen opened the meeting and welcomed the audience before turning the meeting over to MAC staff. Staff along with FAA and Delta representatives then presented information to answer questions that had been submitted by the Eagan ARC prior to the meeting. The questions focused on Runway use distribution, summer 2018 operational trends, specific runway use resulting in Eagan overflights, Runway 17 departure procedures, MAC agreements with neighboring cities, Converging Runway Operations (CRO), and fleet mix updates. The presentation slides are available at:

<https://www.macnoise.com/our-neighbors/msp-quarterly-listening-sessions>

The audience was then able to ask questions, which were primarily focused on operations related to Runway 17/35. Specific questions were asked about:

- Delta's Boeing 737 fleet
- The expected outcome of runway use related to CRO
- Operations data on the MAC Noise website
- Future planning efforts for MSP
- Noise monitoring locations and data
- Ability of departures to fly higher
- The use of Runway 17 compared to Runways 12L and 12R

The MSP Fall Listening Session will be on October 24, 2018 at 7:00 P.M. at the MAC General Offices.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

SUBJECT: **EAGAN MOBILE NOISE MONITORING STUDY REQUEST**

DATE: September 5, 2018

The Eagan Airport Relations Commission is requesting the initiation of a mobile noise monitoring study in the City of Eagan for the purposes of evaluating the location of the currently placed permanent noise monitors to ensure their current location is optimal for collecting noise events from aircraft arriving to and departing from MSP and overflying Eagan.

Background

The MAC owns and operates the largest system of permanently-installed aircraft noise monitors in the United States. [Remote Monitoring Towers \(RMTs\)](#) are located in the neighborhoods underlying the flight paths of aircraft arriving at and departing from MSP. Each RMT has a buffer area, which can be thought as a three-dimensional cylinder surrounding it. The size of the buffer area varies based on the location of the RMT. If an aircraft flies through the buffer area and correlates with the time of a noise event recorded on the sound level meter, then the noise event is determined to be caused by the aircraft. There are eight RMTs located in Eagan with buffer areas ranging from 1.2-mile to 1.6-mile radii. It is not necessary for an aircraft to fly directly over the RMTs to register a sound event.

In 2001, an additional 10 RMTs were added to coincide with the construction of Runway 17/35 – three in Bloomington, two in Burnsville, one in Apple Valley and four in Eagan. A Location Task Force comprised of representatives from the cities of Bloomington, Eagan, Burnsville and Apple Valley was established to involve these communities in siting the new RMT locations. The methods used to site RMTs are sophisticated and driven by spatial technologies and sound level meter performance parameters. The 10 new locations were determined based on RMT monitoring buffer areas. Flight track data were then analyzed to determine instances in which operations departed the airport without passing through an RMT buffer area. The goal was to minimize the number of flight tracks that did not go through an RMT buffer area. Additionally, the new sites had to be located within 100 feet of electrical power and located on public property.

Mobile Monitoring Criteria

In 2012, the NOC established criteria for mobile noise monitoring requests. These criteria are described below:

- *Mobile noise monitoring will not be done where there is already the presence of a monitoring tower that can provide the data being sought.*
- *Mobile noise monitoring will not be done to benefit a single resident or building.*
- *Mobile noise monitoring should be conducted only to the benefit of a large section of the community that is suffering the effects of unusual aircraft noise events that are difficult to monitor otherwise.*

- *The goal of the mobile noise monitoring effort must be well-defined and realistically achievable.*
- *The mobile noise monitoring request must identify why current monitoring data are inadequate for analysis.*

The MAC Noise Program Office has access to mobile noise monitoring equipment that can be configured to replicate the functionality of a permanent RMT and deployed temporarily to locations for noise monitoring purposes. Upon completion of a specified monitoring period, data can be downloaded from the mobile monitoring equipment and imported in to the MAC Noise and Operations Monitoring System (MACNOMS). Once the data are in the system, MAC staff can provide analyses similar to the types of analyses conducted and reported from the permanent RMT sites.

At the September 19, 2018 NOC meeting, staff will present the mobile noise monitoring request to the Committee along with MAC staff's recommendation regarding the request.

REQUESTED ACTION

IT IS REQUESTED THAT THE NOC MEMBERS VOTE ON THE MOBILE NOISE MONITORING REQUEST, AND IF APPROVED, DIRECT MAC STAFF TO WORK WITH THE CITY OF EAGAN AND THE EAGAN AIRPORT RELATIONS COMMISSION TO DETERMINE THE MONITORING SET-UP, DURATION AND REPORTING.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

SUBJECT: **REVIEW FINAL MSP NOISE MANAGEMENT BENCHMARKING STUDY REPORT**

DATE: September 5, 2018

In May 2018 the NOC initiated a Noise Management Benchmarking study and was presented the preliminary findings from an airport survey at its July 2018 meeting.

The complete study is available on the MAC's noise website:

www.macnoise.com/sites/www.macenvironment.org/files/pdf/Benchmarking_Final_Report_9.4.18.pdf

The Executive Summary of the Airport Noise Benchmarking Study is also available on the MAC's noise website:

www.macnoise.com/pdf/msp_executive_summary_final_2018.pdf.

MAC staff will present the final Noise Management Benchmarking study at the September 19, 2018 NOC meeting.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

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

SUBJECT: **DRAFT 2019 WORK PLAN**

DATE: September 5, 2018

Each September, the NOC membership reviews and discusses the proposed draft Work Plan for the coming year. The final draft is presented as a NOC agenda item at the November meeting and is then presented to the MAC Planning, Development and Environment Committee by the NOC Co-chairs. The preliminary list of 2019 Work Plan topics are provided below:

DRAFT 2019 MSP NOC WORK PLAN

1. Residential Noise Mitigation Program

a) Review Residential Noise Mitigation Program Implementation Status

Description: Staff from MAC Airport Development will update the NOC on the First Amendment to the Consent Decree Noise Mitigation Program.

2. MSP Noise Program Specific Efforts

a) 2018 Actual Noise Contour Report and First Amendment to the Consent Decree Noise Mitigation Program Eligibility

Description: Each year in March, under the terms and conditions of the amended 2007 Consent Decree, MAC publishes an actual annual Noise Exposure Map for the previous year. The 2018 noise contours will be used to establish an address list of the single and multifamily parcels that have met one, two and three years of candidate eligibility under the First Amendment to the Consent Decree, as applicable. To be fully eligible, a candidate home must be located for a period of three consecutive years (the first of the three years cannot be later than calendar year 2020) in the actual 60-64 DNL noise contour and within a higher noise impact area when compared to the home's status under the noise mitigation program prior to the amendment.

b) Improve MAC Noise and Operations Monitoring System (MACNOMS) for a better user experience

Description: As the foundation of the MAC Noise Program Office, MACNOMS provides the public with readily-available online tools for assessing and investigating aircraft noise issues. This item will include several initiatives to improve the end-user experience.

c) MSP Fleet Mix and Nighttime Operations Assessment

Description: MSP is federally obligated to stay open 24 hours per day. Recognizing the impacts of nighttime operations, the NOC regularly assesses nighttime trends in airport operations. This is an annual assessment reviewing actual and scheduled nighttime operations at MSP.

d) Status of FAA Center of Excellence/ASCENT, TRB, and FICAN Research Initiatives

Description: This is an annual report on the status of scientific, engineering, and medical research literature prepared by universities, governmental organizations, and transportation boards located within the United States.

- PARTNER – Partnership for AiR Transportation Noise and Emissions Reduction
- TRB – Transportation Research Board, which manages Airports Cooperative Research Program (ACRP)
- FICAN – Federal Interagency Committee on Aviation Noise

e) Update on Converging Runway Operations at MSP

Description: The FAA began applying new CRO mitigation strategies for both parallel runways in March 2016. The FAA will provide updates on the progress of their long-term mitigation plan, expectations for runway use and airport throughput in 2019.

f) Update on the MSP Long Term Comprehensive Plan Update and Associated Stakeholder Engagement

Description: In September 2015, the MAC Commission formally deferred the publication of the Draft MSP 2035 LTCP until sufficient runway use data reflecting implementation of the FAA's Converging Runway Operations mitigation was available. The MAC plans to initiate the preparation of its next LTCP update for MSP in late 2018. Based on the anticipated timeline, the next LTCP will cover the 2020 to 2040 planning horizon. Throughout 2019, the MAC will provide regular updates to the NOC on the progress of the LTCP update and associated stakeholder engagement.

g) Update on the FAA's Survey to Re-Evaluate Noise Measurement Methods

Description: Beginning in 2015, the FAA conducted surveys of residents around select U.S. airports to assess annoyance levels from aviation noise. The agency is assessing the survey results to determine if changes to the federal noise measurement methods and/or compatible land use considerations are warranted. The NOC will receive updates on this process as developments are made.

h) Evaluate the Noise Management Benchmarking Study findings and discuss considerations

Description: In 2018, the NOC initiated a Noise Management Benchmarking Study which identified three considerations: (1) Take noise complaints from non-residential addresses; (2) Live stream NOC meetings; and (3) Provide real-time alerting to the FAA for established noise abatement procedures to increase compliance and awareness. In 2019, the NOC will evaluate these considerations and the findings of this study and discuss next steps.

3. Continue to Review Input Received from the Public Input Meetings as Possible Agenda Items

This is an information item, no NOC action is requested at this time. The final 2019 Work Plan will be placed on the NOC Agenda for November 28, 2018, with a request to recommend approval of the final 2019 NOC Work Plan to be presented by the NOC Co-Chairs to the MAC Planning Development and Environment Committee on December 3, 2018.