



Volume 10, Issue 1
Spring 2011

MSP NOISE NEWS

A quarterly publication of the Metropolitan Airports Commission - Aviation Noise and Satellite Programs

Noise Levels Continue to Decline in 2010

The noise impacts associated with aircraft operations at Minneapolis-St. Paul International Airport (MSP) were significantly lower in 2010 when compared to 2009.

The Metropolitan Airports Commission (MAC) conducts noise contour analyses to evaluate and compare the actual noise impact of MSP on an annual basis. The 2010 noise contour analysis was completed in February 2011 and indicates that 60.8% fewer homes were impacted by 60 dB DNL when compared to the noise contour area in 2009.

The Annual Noise Contour Analysis is based on aircraft operations at MSP. The noise contours are developed using the Integrated Noise Model (INM), which is consistent with the approved Federal Aviation Administration (FAA) criteria for assessing aircraft noise impacts.

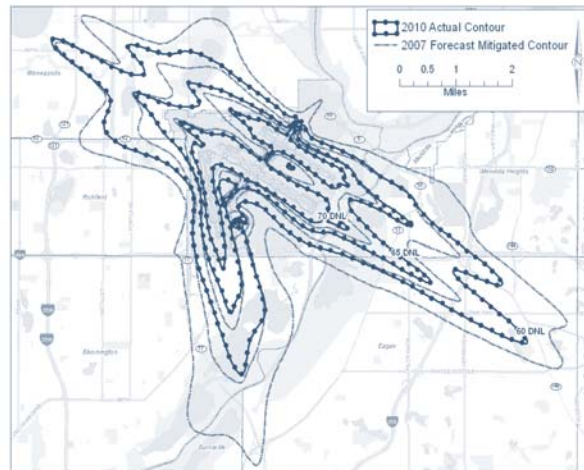
The INM uses input data relative to runway use, flight track use, aircraft fleet mix, aircraft performance and thrust settings, topography information, and atmospheric conditions to generate a noise exposure map. The aircraft operations information that is used for the analysis is obtained through the MAC's aircraft noise and operations monitoring system (MACNOMS).

The actual 60 db DNL noise contour area for 2010 is

about 15% smaller than the actual 2009 60 d DNL dB noise exposure area, and the 2010 actual 65 dB DNL is 16.8% smaller than the 2009 actual 65 dB DNL noise exposure area.



2010 Noise Contours Compared with 2009 Actual Noise Contours and 2007 Mitigated Noise Contours



In addition to comparing the noise conditions from year to year, the Annual Noise Contour Analysis compares the actual noise contours with the noise mitigation program noise contours. Overall, the 2010 analysis results show the actual noise exposure contour area is smaller than the 2007 forecast mitigated 60 dB DNL contour by nearly 41%, and the 65 dB DNL contour is smaller by about 45%.

Factors contributing to the decrease in noise exposure include an overall change in air carrier fleet mix and reduced nighttime operations at MSP. In 2010 there were 30.4% fewer operations in noisier

hushkitted aircraft and increased use of newer, quieter, more efficient aircraft. Furthermore, 13.6% fewer aircraft operations were conducted during the nighttime hours of 10 p.m. to 7 a.m. than were conducted in 2009. Additionally in 2010, for the first time at MSP, more than 50% of Stage 3 aircraft operations were conducted in regional jet aircraft.

To view the full 2010 Annual Noise Contour Analysis,

NOC News



The MSP Noise Oversight Committee (NOC) met on January 19 and March

16, 2011 and discussed the following topics:

Monthly Operations Data

NOC members received a briefing on the monthly operations data contained in the Technical Advisor's Report, Runway 17 Departure Analysis, Crossing-in-the-Corridor Analysis, and the Eagan Mendota Heights Corridor Report. These reports can be found on the noise program website: www.macnoise.com/opreports.

Runway Use Analysis

Staff presented information to NOC members on runway use at MSP in 2010.

Development of Performance-Based Navigation (PBN) Procedure Design Criteria

NOC members worked on developing criteria for a PBN procedure at both the January and March meetings. (See article on Page 3)

MSP 2020 Environmental Assessment Update

Staff briefed NOC members on progress made thus far for the 2020 Development Assessment currently being conducted for MSP.

MSP 2010 Annual Noise Contour Analysis

NOC members reviewed the 2010 Annual Noise Contour Analysis. (See article on page 1)

Annual Scheduled Nighttime Operations Assessment

NOC members reviewed and discussed the results of the Annual Scheduled Nighttime Operations Assessment. (See article on Page 3)

Next NOC Meeting

The next MSP NOC meeting is scheduled for **May 18, 2011 at 1:30 p.m.** at the Metropolitan Airports Commission General Offices, 6040 28th Ave. South, Minneapolis. For more information call 612-726-8100.♦

Ask the Expert

Q. How do air traffic controllers determine which runway(s) will be used for departures and arrivals?

A. In the United States at non-private airports with Air Traffic Control Towers (ATCT), like MSP, runway use is determined by Air Traffic Controllers when they are on duty, with safety being the predominant consideration. In determining the most safe runway to use, controllers consider these main factors: current weather observations and forecasts for wind speed, wind direction, the location and types of clouds/storms, and visibility on the airfield. Controllers also take into consideration a runway's surface condition, limits on the amount of weight a runway is allowed to bear, and navigational aids available for each runway.

Aircraft generally take off and land *into a head wind* in order to generate adequate lift. At times, when the wind speed is calm or light (less than 7 miles per hour), Air Traffic Control and pilots have more flexibility when selecting a runway. At MSP, when conditions permit, a runway use system (RUS) is activated. The MSP RUS is designed to minimize noise impacts for communities surrounding the airport. Table 1 indicates the priority of runway use under the RUS when safety conditions permit.♦

Table 1	
MSP Runway Use System	
<u>Departures</u>	<u>Arrivals</u>
1. Runways 12L and 12R	1. Runways 30L and 30R
2. Runway 17	2. Runway 35
3. Runway 4/22	3. Runway 4/22
4. Runways 30L and 30R	4. Runways 12L and 12R

Nighttime Aircraft Operations Reach an Eight-Year Low in 2010

The nighttime operations at Minneapolis-St. Paul International Airport (MSP) are an expressed concern for residents around the airport. MSP is operational 24 hours per day, which means that aircraft arrive and depart during the noise sensitive nighttime hours. These operations can be intrusive and disturbing; therefore, the MAC closely assesses the actual and scheduled nighttime operations to identify trends. The assessment for 2010 realized an eight-year low in nighttime operations.

The Annual MSP Nighttime Operations Assessment 2009-2010 details the scheduled and actual nighttime operations between 10:30 p.m. and 6:00 a.m. In 2010, the average daily number of nighttime operations shrunk by 21% from the previous year. Furthermore, there were fewer than 400 nighttime operations in 2010 that were conducted in non-manufactured Stage 3 aircraft, which are generally older and louder aircraft (e.g., "Hushkit" DC-9, B727) compared to approximately 1,500 such operations in 2009.

This is a positive trend in reducing nighttime airport noise and contributes to the reduction in actual noise levels around MSP. As part of its yearly work plan, the Noise Oversight Committee continues to analyze the number of nighttime operations and the types of aircraft that are used. For the full Annual MSP Nighttime Operations Assessment for 2009-2010 please visit www.macnoise.com. ♦

Performance Based Navigation Procedure Development Underway

In November 2010, the Minneapolis-St. Paul International Airport (MSP) Performance Based Navigation (PBN) integration effort began with a three-day kickoff meeting.

Over 60 people attended and exemplary collaboration was demonstrated by representatives from the Federal Aviation Administration (FAA), Delta Air Lines, Southwest Airlines, the Metropolitan Airports Commission and various support contractors in attendance.

The meeting established a productive process, protocol for communication between the various entities, and achieved the initial review of preliminary Area Navigation (RNAV) and Required Navigation Performance (RNP) tracks that overlay existing departure and arrival paths at

MSP.

The MAC emphasized the importance of making noise considerations part of this effort and informed the group that the MSP Noise Oversight Committee (NOC) would be establishing general criteria for use during the PBN development effort at MSP.

At the NOC meeting held on January 19, 2011, NOC members discussed the draft criteria. At the March 16, 2011 meeting, the following criteria was finalized:

1. Provide a noise contour analysis using the MSP 2010 actual noise data analyzing the effects of the procedures on the noise contours and other noise metrics that evaluate the time above impact and single event noise impacts along a given RNAV track at MSP.

2. Provide a public information program to inform the public.
3. Reduce the number of sensitive land use overflights.
4. Reduce aircraft arrival noise.
5. Maximize use of RNAV noise tracks as part of the runway Use System.

The intent of developing these criteria is to facilitate the noise assessment during examination of any new procedures prior to implementation or action being taken by the Performance Based Navigation Integration Task Force.

It is anticipated that new procedures could be completed for MSP and submitted for FAA approval by the end of 2011; it could take another year beyond that point to complete the final implementation and publish the procedures for public-use. ♦



*A quarterly publication of the Metropolitan Airports
Commission - Aviation Noise and Satellite Programs*

6040 28th Avenue S.
Minneapolis, MN 55450

Phone: 612-725-6455
Noise Complaint Line: 612-726-9411
E-mail: info@macnoise.com
Website: www.macnoise.com

Spring 2011

MSP NOISE NEWS

Inside this issue:

Noise Levels Continue to Decline in 2010	1
NOC News	2
Ask the Expert	2
Nighttime Aircraft Operations Reach an Eight-Year Low in 2010	3
Performance Based Navigation Procedure Development Underway	3

Next Public Input Meeting Scheduled April 26

Please join Metropolitan Airports Commission staff at the next Airport Noise Public Input Meeting taking place **Tuesday, April 26, 2011** at 7 p.m.

The meeting will be held at the Metropolitan Airports Commission General Offices, 6040 28th Avenue South, Minneapolis. This is an opportunity for residents to ask questions and learn more about what's new at MSP in terms of airport noise.

For more information, please contact Christene Sirois Kron at **612-725-6455** or **Christene.SiroisKron@mspmac.org** ♦

If you no longer wish to receive this publication, and other airport noise related information, please call or e-mail Christene Sirois Kron at 612-725-6455 or Christene.SiroisKron@mspmac.org. In your e-mail, please write the word "delete" in the subject line, followed by your street address and city.



Printed on Recycled Paper