

Public Input Meeting Responses – October 23, 2007 (Questions are in **bolded**)

Click [here](#) for the summary memorandum that was forwarded to members of the MSP Noise Oversight Committee (NOC) regarding the October 23, 2007 Public Input Meeting

I attended a recent Noise Oversight Committee meeting where discussion was held regarding the use percentages for Runway 17/35. Could you address how the Runway Use System at Minneapolis-St. Paul International Airport (MSP) supersedes the forecasted use rate of 37% for Runway 17/35?

The Runway Use System (RUS) establishes runway selection preferences based on impacted population (i.e., the runway that impacts the fewest people receives the highest preference). Noise benefits from utilizing the RUS can be obtained during mid- and low-demand periods, which usually occur during the night. Under the RUS the first priority for operations during the nighttime hours is over the Eagan/Mendota Heights Corridor (an area that contains the Minnesota River and commercial and industrial land immediately east of MSP) and the second priority is Runway 17/35. When it is operationally feasible, the airport should operate consistent with the RUS.

Could you explain how the noise contours around MSP are determined – are they determined mainly by arrivals, rather than by departures?

To develop the noise contour lines, the MAC uses the federally developed and federally approved Integrated Noise Model (INM), which is the industry standard for determining predicted noise impacts around the vicinity of an airport. INM develops the contours by utilizing input files consisting of information relative to runway use, flight track use (for both arrivals and departures), aircraft fleet mix, aircraft performance/thrust settings, topography information, atmospheric conditions and specified noise abatement procedures. INM also incorporates a standardized aircraft noise database that includes aircraft noise levels that have been determined by the FAA as part of the aircraft airworthiness certification process. Typically, an airport's noise contour will extend outward along the extended runway centerline to model consistency of approaching aircraft to the airport, while it will have a more rounded edge extending outward along departure flight tracks to model the dispersion that is typical for departing aircraft.

I built a twinhome in Eagan approximately 10 years ago and, at that time, there were no aircraft overflights in the area where I built my home. Overflights used to come in over Lone Oak Road and I-35. I was under the impression that, with the opening of the new runway at Minneapolis-St. Paul International Airport, aircraft would once again be concentrated in the Lone Oak Road and I-35 area.

Aircraft departing Runways 12L/R or arriving on Runways 30L/R are concentrated over the Lone Oak Road and I-35E area in the Eagan/Mendota Heights Corridor (an area that contains the Minnesota River and commercial and industrial land immediately east of MSP). However, the new Runway 17/35 is a north-south runway with operations departing to the south of the airport or arriving from the south of the airport. The configuration of Runway 17/35 does not allow for operations to be concentrated over the Lone Oak and I-35E area.

I believe my property value is dropping as a result of aircraft overflights in my area.

The relationship between cumulative noise levels and property values is complex. The impact of airport noise on housing values has been the subject of a number of studies around the nation;

however, the results have varied and have been difficult to quantify out to the 65 and 60 DNL contour. The degree of effect is contingent on several factors including the level and frequency of noise, property location with respect to over flights, the perceived amenities and quality of the affected neighborhood/community, the local supply and demand for housing, the local and regional economy and other market conditions that cannot be controlled or predicted.

My home is located two miles outside of the area eligible for noise mitigation per the recent proposed settlement – what will be done to address my home and my property value?

The federal standard for noise mitigation eligibility is the 65 Day-night Average Sound Level (DNL) area. Under the new noise mitigation program, the MAC would provide mitigation to homes out to the 60 DNL contour. Since your home is located approximately two miles outside of the 60 DNL contour area it is not eligible for the new mitigation program.

Also, why can't aircraft arrive into Minneapolis-St. Paul International Airport at a higher altitude and descend quickly into the airport to minimize noise impact? Why can't departures ascend more quickly to minimize noise impact?

Arriving aircraft use a straight-in approach path, known as a final approach course, when landing at MSP. The straight-in approach path permits the use of an Instrument Landing System (ILS), allows Air Traffic Control (ATC) to safely and efficiently separate aircraft, and permits the pilot to establish a safe, stabilized descent to the runway. This is a Federal Aviation Administration (FAA) standard, not a MAC determination.

The altitude of departing aircraft will vary considerably due to a number of factors. Wind, weather, temperature and aircraft type all influence overall climb performance. Older hush-kitted aircraft (DC-9, B727) do not perform as well and are not as efficient as newer aircraft and thus do not climb as well. In addition, aircraft will have an increased climb rate with stronger headwinds and cooler temperatures. To minimize noise impact during this phase of flight, the MAC has specified that pilots use the Distant Noise Abatement Departure Profile. This departure profile consists of a unique combination of aircraft configuration and thrust settings that optimize climb rate and minimizes noise impact for residents living beyond 3.5 miles from the airport.

According to the 2007 contour contained in the proposed settlement, I'm located in the 61 DNL and I don't understand how that can be. Planes fly so low over my home that I could hit them with a shotgun, and I don't see how the DNL contours can be where you say they are when the equipment you use to collect noise are not located near my home. My home is located on top of a hill and I'm in the 61 DNL, and yet homes located below me have received mitigation – why isn't terrain taken into consideration in determining DNL contours?

To develop the noise contour lines, the MAC uses the federally developed and federally approved Integrated Noise Model (INM), which is the industry standard for determining predicted noise impacts around the vicinity of an airport. INM develops the contours by utilizing input files consisting of information relative to runway use, flight track use, aircraft fleet mix, aircraft performance/thrust settings, topography information (terrain), atmospheric conditions and specified noise abatement procedures. INM also incorporates a standardized aircraft noise database that includes aircraft noise levels that have been determined by the FAA as part of the aircraft airworthiness certification process. While helpful in validating forecasted noise levels (INM contours), actual noise measurements collected by the MAC's system of 39 RMTs are not used in developing the noise contours and the boundaries of the residential mitigation program.

Being in the 61 DNL, I would be eligible for \$14,000 and that won't do much for me as I have 55 windows in my house. The proposed settlement is just a way for the MAC to try to save money. Why doesn't the MAC spend money on homes located where the planes actually fly?

The federal standard for noise mitigation eligibility is the 65 Day-night Average Sound Level (DNL) area. To date the MAC has spent over \$232 million on residential mitigation in the 65 DNL area. Under the new noise mitigation program, the MAC would provide mitigation to homes out to the 60 DNL contour (beyond the federal standard), which represents an additional expenditure of approximately \$127 million in residential mitigation.

Your home is located in the 2007 60-62 DNL contour area and would be eligible for the new mitigation program. Additional information on this program can be found at www.macnoise.com.

Why can't a barrier, like a tall concrete wall, be erected around the entire perimeter of Minneapolis-St. Paul International Airport to deflect noise back into the airport and to keep noise from emanating out to surrounding communities?

The concept of berms to reduce noise around the perimeter of an airport has been discussed on both a national and local level. Berms and natural vegetation were incorporated into the development of the MSP 2010 plan, however, sound barrier walls and/or other ground enclosures are typically costly and do not provide enough noise level reduction to justify its cost.

We've lived in our home since 1965 and never experienced aircraft noise until the new runway opened at Minneapolis-St. Paul International Airport. Why can't the Minnesota River Valley be used more often for westbound departures?

The MSP Noise Oversight Committee (NOC), MAC staff, the Federal Aviation Administration (FAA) and Burnsville representatives had several discussions relating to the departure flight paths for westbound aircraft off of Runway 17. Originally, westbound departure aircraft were restricted to a westbound heading constraint of 190 degrees off of Runway 17 which concentrated departures over northeast Burnsville. Through these discussions FAA staff opened the heading constraint up to 215 degrees which concentrates the majority of the westbound departure aircraft over the Minnesota River. Staff analysis confirmed that the utilization of the 215 degree heading significantly reduces the number of aircraft overflights over residential areas in northeast Burnsville.

It should be noted that the modeled 215 degree flight track concentrates departing aircraft over the center of the Minnesota River. Due to wind, weather, pilot technique, Air Traffic Control (ATC) instructions and aircraft performance capabilities the actual ground track of each departing aircraft may vary considerably. ATC does not currently have the ability, for example, to direct aircraft along a highway corridor or other specific points along the ground. However, technology is emerging that provides the capability for aircraft to fly a desired track in a manner that is reproducible and allows for more accurate concentration of aircraft overflights in a desired area (such as the center of the Minnesota River). The NOC has included this on its 2008 work plan as something that should be pursued in more detail next year as part of the 2008 NOC activities.

Why was Burnsville not included in the proposed noise mitigation settlement?

The federal standard for noise mitigation eligibility is the 65 Day-night Average Sound Level (DNL) area. Under the new noise mitigation program, the MAC would provide mitigation to homes out to the 60 DNL contour (beyond the federal standard). The city of Burnsville is located outside of the 60 DNL contour area and is not included in the proposed mitigation settlement.

There are four flight tracks that constantly overfly my home and they are so low I can see the passengers on the planes. I'm right in the middle of all this aircraft overflight traffic, so why am I not included in the noise footprint? It seems like everyone around me is included, but my block – which is right next to I-35 – was skipped. Why is that? Who designed the noise footprint?

To develop the noise contour lines, the MAC uses the federally developed and federally approved Integrated Noise Model (INM), which is the industry standard for determining predicted noise impacts around the vicinity of an airport. INM develops the contours by utilizing input files consisting of information relative to runway use, flight track use, aircraft fleet mix, aircraft performance/thrust settings, topography information (terrain), atmospheric conditions and specified noise abatement procedures. INM also incorporates a standardized aircraft noise database that includes aircraft noise levels that have been determined by the FAA as part of the aircraft airworthiness certification process.

The federal standard for noise mitigation eligibility is the 65 Day-night Average Sound Level (DNL) area. Under the new noise mitigation program, the MAC would provide mitigation to homes out to the 60 DNL contour (beyond the federal standard). Your home is outside of the 60 DNL contour area and therefore is not included in the new mitigation program.