Minneapolis-St. Paul International Airport (MSP)  
Noise Oversight Committee (NOC)  
Meeting Agenda  
May 16, 2012  
1:30 P.M.  
City Council Chambers  
Richfield City Hall  
6700 Portland Avenue  
Richfield, MN 55423  
(Jeff Hart, Delta Air Lines & NOC Co-Chair, 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 to 1:45 – Public Comment Period

2. 1:45 to 1:50 – Review and Approval of March 21, 2012 NOC Meeting Minutes


4. 1:55 to 2:15 – Review Noise Abatement Departure Profiles (NADP)

5. 2:15 to 2:25 – Consideration of South Minneapolis Noise Monitoring Request

6. 2:25 to 2:30 – Second Quarter 2012 Public Input Meeting Comments

7. 2:30 – Adjourn
MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)
FROM: Chad E. Leqve, Manager – Noise, Environment and Planning
SUBJECT: REVIEW NOISE ABATEMENT DEPARTURE PROFILES (NADP)
DATE: May 2, 2012

At the March 21, 2012 Noise Oversight Committee (NOC) meeting the Committee took action to address the South Minneapolis Runway 30R northbound aircraft departure issue. One of the points included in the committee action was a “request that MAC staff conduct an analysis of NADP on 30R and 30L and report the effects of each NADP procedure at the next NOC meeting in May.”

Staff has completed an analysis of the effects of Noise Abatement Departure Profiles (NADP) at Minneapolis-St. Paul International Airport (MSP). The following information provides background on NADPs and related history at MSP, the newest version of the Integrated Noise Model (INM) 7.0c that was used in the analysis, the development of the INM NADP aircraft departure profiles, and results of the NADP impact analysis.

Background

Noise Abatement Departure Profiles (NADP)

In the early 1990s, the Federal Aviation Administration (FAA) responded to numerous requests for unique noise abatement departure procedures by studying the viability of using different procedures off different ends of runways at the same airport. The result of exhaustive testing at the John Wayne/Orange County Airport (SNA) in Santa Ana, CA was FAA advisory circular (AC) 91-53A, published in 1993. The AC establishes guidelines for airlines in the development of NADPs including minimum operating parameters for airlines to use in developing operating procedures. The AC establishes a standardized system so that an aircraft will use the same operating procedures throughout the world. Each airline develops specific procedures for flying NADPs that are approved by the FAA and that must comply with the provisions of the AC. Airports are permitted to decide the appropriate NADP to use on each end of its runways. Unless otherwise instructed, airlines will typically use the Distant NADP.

The AC establishes both a Close-In and Distant NADP. The Close-In NADP generally is intended to reduce noise slightly for communities within the immediate vicinity of the runway end – approximately 3.5 miles from the start of takeoff roll – while the Distant NADP is intended to reduce noise slightly for other communities that are not within the immediate vicinity of the runway end (beyond 3.5 miles from the start of take-off roll).

When using a Close-In NADP, an aircraft reduces thrust sooner, and maintains takeoff flaps longer, than it would when using a Distant NADP. This results in a slightly quicker climb, and allows the aircraft to “pop” up over communities close to the airport and reduce noise exposure slightly for homes within the immediate vicinity of the airport. After reaching 3,000 feet, however, a Close-In NADP aircraft must substantially reduce
its rate of climb and accelerate to a sufficient airspeed to retract flaps and slats. Although the aircraft is slightly higher, it is also slower and at a higher thrust setting than an aircraft using a Distant NADP. Beyond the immediate vicinity of the airport, this results in a slight increase in noise exposure. For modern high-performance jet aircraft, the noise impact difference between the Close-In and Distant NADPs is minimal.

**NADPs at Minneapolis-St. Paul International Airport (MSP)**

In August 1997, per the direction of the Metropolitan Aircraft Sound Abatement Council (MASAC), the Metropolitan Airports Commission (MAC) implemented NADPs at MSP designating the Distant NADP for Runways 12L, 12R, 22 and 04 and the Close-In NADP on Runways 30L and 30R. The use of the Close-In NADP on Runways 30L and 30R was predicated on the existence of Stage 2 aircraft at the time and the associated reduction of population within the 65 dB DNL contour. The benefits associated with the Close-In procedure are greatest when used by Stage 2 aircraft and hushkitted Stage 3 aircraft. Prior to the 1997 decision to implement NADPs, MSP aircraft operations included approximately 51% Stage 2 aircraft operations and only 49% manufactured Stage 3 aircraft operations. As the national aircraft fleet transitioned to an all Stage 3 fleet, the benefits of the Close-In NADP also diminished.

One of the recommended noise abatement measures in the November 2001 MSP Part 150 Update Noise Compatibility Program (NCP) was the implementation of an NADP for each runway at MSP. MASAC conducted extensive research and analysis during the Part 150 Update process to establish the appropriate NADP for each runway end at MSP considering the present and future trends in the aircraft fleet mix and noise impacts out to the 60 dB DNL contour. Based on the MASAC analysis, it was determined that noise impacts for all communities were minimized by using the Distant NADP off all runways at MSP when considering noise impacts in the 60 dB DNL noise contour and the areas that received the 5 dB noise mitigation package around the airport. Additionally, the post -2000 transition to quieter Stage 3 aircraft at MSP had the effect of significantly reducing the differences between the two procedures.

As a result of the various analyses, MASAC approved the Distant NADP off all runways at MSP and forwarded recommendation of its use in the November 2001 Draft Part 150 Update document where it was approved by the MAC Full Commission.

Considering the MASAC analysis conducted in 2000, previous agreements/decisions regarding the use of the Distant NADP on all runways at MSP, and the request by the FAA for the implementation of the Distant NADP on Runways 30L and 30R for safety reasons, on June 26, 2003 the Noise Oversight Committee (NOC) unanimously recommended a change in the NADP for Runways 30L and 30R from the Close-In to Distant NADP, and reaffirmed MASAC’s previous position through maintaining incorporation of the measure in the November 2004 Draft Part 150 Update document. On July 22, 2003 the MAC Full Commission approved the change. Shortly thereafter, operators at MSP began implementing the Distant NADP off Runways 30L and 30R. Following the NADP change, the NOC conducted an analysis of the effects. It was determined that the monitored noise data were consistent with the assumptions considered as part of the previous community input, evaluation, and the NOC decision on the implementation of the Distant NADP over South Minneapolis.

**Updated Integrated Noise Model (INM) 7.0C**

The FAA-established mechanism for quantifying airport DNL noise impacts is the Integrated Noise Model (INM). The availability of federal or airport-generated funds for the purpose of noise mitigation efforts such as sound insulation is contingent upon the development of a Noise Exposure Map (DNL noise contours) in a manner that is
consistent with the federal criteria (i.e., INM and DNL). The INM is used to assess the noise impact of aircraft operations. The model uses input files consisting of information 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 computer model generates contours, typically represented in 5-DNL increments, which depict an annualized average day of aircraft noise impacts.

Quantifying aircraft-specific noise characteristics in INM is accomplished through the use of a comprehensive noise database that has been developed under the auspices of Federal Aviation Regulation (FAR) Part 36. As part of the airworthiness certification process, aircraft manufacturers are required to subject aircraft to a battery of noise tests. Through the use of federally adopted and endorsed algorithms, this aircraft-specific noise information is used in the generation of INM DNL contours. Justification for such an approach is rooted in national standardization of noise quantification at airports. The FAA Office of Environment and Energy (AEE-100) developed the INM. Since 1978, the INM has been the FAA's standard tool for determining the predicted noise impact in the vicinity of airports. The INM is designed to estimate long-term average effects using average annual input conditions.

The MAC used INM Version 7.0b to develop the 2011 Actual Noise Contour Report published in February 2012. However, the FAA has recently released INM version 7.0c which includes database updates and the correction of minor software issues that existed in version 7.0b. The FAA website explains the model updates as follows:

“INM Version 7.0c includes approach noise data updates for many existing Airbus aircraft types, which are considered to better represent the approach noise generated near an airport and address a reference speed assumption issue in the INM Version 7.0b approach noise data for these aircraft. The affected aircraft types are the:

- A300-622
- A310-304
- A319-131
- A320-211
- A320-232
- A330-301
- A330-343
- A340-211
- A340-642
- A380-841
- A380-861

INM Version 7.0c includes an updated standard aircraft substitution list. 22 new aircraft are added to the substation list, 38 substitutions are modified, and 8 are deleted. The update is based on comprehensive review of aircraft configuration, aircraft aerodynamic performance, noise certification levels, and noise contour area comparisons.
INM Version 7.0c includes the addition of several new aircraft types to the INM system database, including five Cessna business jets, four Bell helicopter and two floatplanes, many of which are used in air tour operations at national parks in the US. The new aircraft are the:

- Bell 206B-3
- Bell 427
- Bell 429
- Bell 430
- Cessna Citation, CJ4, Model 525C
- Cessna Citation Encore, Model 560
- Cessna Citation Ultra, Model 560
- Cessna Citation Excel, Model 560
- Cessna Citation Sovereign, Model 680
- Cessna Skylane Model 182S with amphibious floats
- De Havilland Canada DHC-2 Beaver with floats.

INM Version 7.0c also includes noise data updates for many existing aircraft types, many of which are used in air tour operations at national parks in the US. The affected aircraft types are the:

- CNA182
- CNA208
- DO228
- DO328
- PA42
- R44
- SC300C.

Minor corrections were also made to the data for several existing aircraft for INM Version 7.0c, details of which can be found within the INM 7.0c Release Notes.

Staff used INM version 7.0c to conduct the NADP analysis. It is important to note that use of INM version 7.0c increases the size of the 2011 actual noise contour by approximately 4% when compared to the 2011 actual noise contour developed with INM version 7.0b in the Annual Noise Contour Report published in February 2012.

**NADP INM Profile Development**

In conjunction with MAC, HNTB (MAC’s consultant on the INM profile development project) identified a series of aircraft representing the loudest and most frequently used aircraft under a number of noise exposure scenarios, including 2010, 2011, and the forecast fleet mix for 2020 and 2025. MAC staff provided a list of noise model aircraft, the frequency of operations, and comparative noise levels based on data contained in
FAR Part 36. Noise model input files for each year of analysis were provided, which included the INM noise model aircraft type, the trip distance (represented by stage length), and the number of operations. For each fleet mix and year, the top 15 contributors, based on cumulative noise energy, were identified. The table below provides the top 15 contributors to the cumulative noise environment by year, and summarizes the percentage of all departures captured by these aircraft.

### Proposed Custom Profile Aircraft Operations

<table>
<thead>
<tr>
<th>Ops</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Top 15 Dep</td>
<td>486</td>
</tr>
<tr>
<td>Total Dep</td>
<td>597</td>
</tr>
<tr>
<td>Top 15 %</td>
<td>81%</td>
</tr>
</tbody>
</table>

Source: MAC, HNTB Analysis, 2012

As shown in the above table, the top 15 aircraft represent between 81% and 85% of all departures depending on the year of analysis. Based on the overlap of aircraft in between the years of analysis, a total of 20 unique INM noise model aircraft were selected for NAPD profile development. A total of 20 aircraft with 82 unique stage lengths were identified, resulting in the development of a 164 custom profiles. Profiles were developed for the following aircraft:

- 737-700
- 747-200
- 757-300
- 767-400
- 757PW
- A319-131
- A320-211
- A321-232
- A330-301
- CLREGJ
- DC10-10
- DC9Q-9
- EMB170
- MD11EG
- MD81
- MD9025

In order to develop the NADP profiles for the range of aircraft, data provided by Delta Air Lines, and guidance on the development of NADPs available in the version 7.0 INM User’s Guide, were referenced.

Delta Air Lines provided information on profile data for a selection of aircraft for both the Distant and Close-In NADPs. The data include information pertaining to speeds, thrust settings and specific aircraft operational data. The INM noise model provides generic instructions for editing an INM standard profile to meet general parameters for both the Close-In and Distant NADP. The INM guidance is general and not specific to any one type of aircraft.

Generally, the procedure to develop the custom profiles is as follows:

- **Close-In NADP:** The start of the Close-In NADP is the takeoff roll at takeoff thrust with takeoff flaps. The aircraft lifts off and begins climbing at takeoff thrust until reaching 800’ Above Ground Level (AGL). Thrust is then reduced to climb thrust, and the aircraft
continues to climb until 3,000’ using the flaps setting previously used in an accelerative step, at a constant airspeed. Upon reaching 3,000’, the aircraft begins a series of acceleration steps at climb thrust until it reaches final climb speed (250 knots or more depending on aircraft). Meanwhile, if not already initiated, the flaps and slats are retracted. After reaching final climb speed, the aircraft climbs to 5,500’, 7,500’, and 10,000’ maintaining the same airspeed.

**Distant NADP:** The start of the Distant NADP is the takeoff roll at takeoff thrust with takeoff flaps. The aircraft lifts off and begins climbing at takeoff thrust until reaching 800’ AGL. Takeoff thrust is maintained as slats and flaps are retracted on schedule. Following full retraction of slats and flaps, thrust is reduced to climb thrust. The aircraft continues to accelerate until reaching final climb speed (250 knots or more depending on aircraft). After reaching final climb speed, the aircraft climbs to 5,500’, 7,500’, and 10,000’ maintaining the same airspeed.

Sample departure profiles for two aircraft types from the noise model – a 767-300 and a 757, both with Pratt and Whitney engines – were provided to Delta Air Lines for comment and feedback. A series of graphs representing thrust, altitude, and speed, all compared to distance, were included, for the noise model "Standard" profile, the Close-In profile, and the Distant profile. Feedback was incorporated into revised NADPs, and the INM files required for running the noise model were finalized.

**NADP Impact Analysis**
Attachment A provides a map comparing the Distant and Close-In noise impacts in the context of the 2011 actual noise contour. Below is a table comparing the 2011 noise contour acreages for the two procedures.

<table>
<thead>
<tr>
<th>Comparison of Noise Abatement Departure Profile Contour</th>
<th>Acreage in the Context of the 2011 Actual Noise Contour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distant NADP</td>
<td>60-64</td>
</tr>
<tr>
<td></td>
<td>5,609.9</td>
</tr>
<tr>
<td>Close-In NADP</td>
<td>5,900.7</td>
</tr>
</tbody>
</table>

The area between the 60 to 64 DNL noise contours is 290.8 acres smaller when comparing the Distant to the Close-in procedures. However, the area in the 65+ DNL noise contours increases by 330.0 acres when comparing the Distant to the Close-in procedures. In total the acreages are almost the same between the two procedures with only 39.3 more acres in the Distant NADP contour.

The tables below provide an analysis of the single-and multi-family (greater than one unit) dwelling and population counts for the Distant and Close-In NADPs based on the parcel intersect methodology.
### 2011 Actual Noise Contour Distant NADP

#### Parcel Intersect Single-Family

<table>
<thead>
<tr>
<th>City</th>
<th>Units</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minneapolis</strong></td>
<td>Units</td>
<td>5346.0</td>
<td>1005.0</td>
<td>19.0</td>
<td>0.0</td>
<td>6370.0</td>
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<td></td>
<td>Population</td>
<td>13627.3</td>
<td>2562.8</td>
<td>48.5</td>
<td>0.0</td>
<td>16238.5</td>
</tr>
<tr>
<td><strong>Bloomington</strong></td>
<td>Units</td>
<td>15.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>Population</td>
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<td>0.0</td>
<td>40.8</td>
</tr>
<tr>
<td><strong>Richfield</strong></td>
<td>Units</td>
<td>491.0</td>
<td>23.0</td>
<td>0.0</td>
<td>0.0</td>
<td>514.0</td>
</tr>
<tr>
<td></td>
<td>Population</td>
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<td>60.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1341.5</td>
</tr>
<tr>
<td><strong>Eagan</strong></td>
<td>Units</td>
<td>116.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>116.0</td>
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<tr>
<td></td>
<td>Population</td>
<td>326.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>326.0</td>
</tr>
<tr>
<td><strong>Mendota Heights</strong></td>
<td>Units</td>
<td>9.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>24.7</td>
<td>2.7</td>
<td>0.0</td>
<td>0.0</td>
<td>27.4</td>
</tr>
<tr>
<td><strong>All Cities</strong></td>
<td>Units</td>
<td>5977.0</td>
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<td>19.0</td>
<td>0.0</td>
<td>7026.0</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>15297.6</td>
<td>2628.1</td>
<td>48.5</td>
<td>0.0</td>
<td>17974.2</td>
</tr>
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</table>

### 2011 Actual Noise Contour Distant NADP

#### Parcel Intersect Multi-Family >1 Units

<table>
<thead>
<tr>
<th>City</th>
<th>Units</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<tr>
<td></td>
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<td>857.1</td>
<td>9.4</td>
<td>0.0</td>
<td>2876.1</td>
</tr>
<tr>
<td><strong>Bloomington</strong></td>
<td>Units</td>
<td>654.0</td>
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<td>0.0</td>
<td>656.0</td>
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<td>3.6</td>
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<td>1056.6</td>
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<tr>
<td><strong>Richfield</strong></td>
<td>Units</td>
<td>65.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>65.0</td>
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<td>107.9</td>
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<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Mendota Heights</strong></td>
<td>Units</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>All Cities</strong></td>
<td>Units</td>
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<td>2162.0</td>
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<td>Population</td>
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<td>860.7</td>
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<td>0.0</td>
<td>4040.5</td>
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### 2011 Actual Noise Contour Close-In NADP

**Parcel Intersect Single-Family**

<table>
<thead>
<tr>
<th></th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minneapolis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units</td>
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<td>801.0</td>
<td>1.0</td>
<td>0.0</td>
<td>6475.0</td>
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<tr>
<td>Population</td>
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<td>16511.3</td>
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<td><strong>Bloomington</strong></td>
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<td></td>
</tr>
<tr>
<td>Units</td>
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<td><strong>Richfield</strong></td>
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<td></td>
</tr>
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<td>Units</td>
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<td>0.0</td>
<td>0.0</td>
<td>507.0</td>
</tr>
<tr>
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<td>0.0</td>
<td>0.0</td>
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<td>1323.3</td>
</tr>
<tr>
<td><strong>Eagan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units</td>
<td>132.0</td>
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<td>132.0</td>
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<td>0.0</td>
<td>0.0</td>
<td>370.9</td>
</tr>
<tr>
<td><strong>Mendota Heights</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units</td>
<td>9.0</td>
<td>1.0</td>
<td>0.0</td>
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<td>10.0</td>
</tr>
<tr>
<td>Population</td>
<td>24.7</td>
<td>2.7</td>
<td>0.0</td>
<td>0.0</td>
<td>27.4</td>
</tr>
<tr>
<td><strong>All Cities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units</td>
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<td>Population</td>
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<td>2.6</td>
<td>0.0</td>
<td>18253.2</td>
</tr>
</tbody>
</table>

The following tables provide the changes to the above counts with use of the Close-In NADP.

### 2011 Actual Noise Contour Close-In NADP

**Parcel Intersect Multi-Family >1 Units**

<table>
<thead>
<tr>
<th></th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minneapolis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units</td>
<td>1491.0</td>
<td>193.0</td>
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The following tables provide the changes to the above counts with use of the Close-In NADP.
As shown above, when evaluating the 60 – 64 DNL noise contour area, the Distant NADP provides a reduction of 851 residential units (population reduction of 1772.1) when compared to the Close-In NADP. Conversely, the number of residential units increases by 547 (population increase of 1141.6) in the 65+ DNL when comparing the Distant NADP to the Close-In NADP. However, all of the units within the Distant NADP 63+ DNL noise contour have been provided the 5 dB noise mitigation package.
Attachments B through E provide the DNL values for the two procedures on a parcel-by-parcel basis for all of the properties included in the noise mitigation program around MSP.

In addition, Attachments F and G provide the DNL values for the two procedures at each of the MAC Noise and Operations Monitoring System Remote Monitoring Tower locations. Based on these analyses, the Distant NADP provides for the widest extent of noise reduction when considered in combination with the achievements of the residential noise mitigation program at MSP. This conclusion is based on the fact that of the 802 total residential blocks included in the current 60+ DNL noise mitigation program around MSP, 56.4% receive a noise reduction as a result of the Distant NADP. Moreover, the areas where the noise is slightly increased due to the use of the Distant NADP have been provided the 5 dB noise mitigation package. Lastly, the RMT location INM DNL evaluation establishes that in areas located outside the current 60+ DNL noise mitigation program around MSP, the Distant NADP procedure provides a noise reduction benefit.

The above findings are consistent with the analysis conducted in 2003 by the NOC which led to the decision to implement the Distant NADP on Runways 30L and 30R.

**Committee Action**

Determine if a change to the Close-In NADP is warranted on the runways at MSP.
Attachment E: Decibel Levels from Noise Abatement Profile Noise Contours - Eagan, Mendota Heights and Inver Grove Heights
Attachment F: Grid Point Decibel Levels at Remote Monitoring Towers (RMTs) from Noise Abatement Profile Contours - Minneapolis, Richfield, Mendota Heights and St. Paul

- RMT 1: Close-In Decibel Value 55.8
  Distant Decibel Value 55.8
- RMT 2: Close-In Decibel Value 57.1
  Distant Decibel Value 55.8
- RMT 3: Close-In Decibel Value 62.2
  Distant Decibel Value 62.1
- RMT 4: Close-In Decibel Value 60.5
  Distant Decibel Value 60.3
- RMT 5: Close-In Decibel Value 67.7
  Distant Decibel Value 67.9
- RMT 6: Close-In Decibel Value 66.3
  Distant Decibel Value 67.1
- RMT 7: Close-In Decibel Value 58.4
  Distant Decibel Value 57.9
- RMT 8: Close-In Decibel Value 56
  Distant Decibel Value 55.8
- RMT 9: Close-In Decibel Value 44.4
  Distant Decibel Value 44.4
- RMT 10: Close-In Decibel Value 49.7
  Distant Decibel Value 49.3
- RMT 11: Close-In Decibel Value 44.3
  Distant Decibel Value 44.2
- RMT 12: Close-In Decibel Value 46.7
  Distant Decibel Value 46.6
- RMT 13: Close-In Decibel Value 54.3
  Distant Decibel Value 54
- RMT 14: Close-In Decibel Value 59.6
  Distant Decibel Value 55.3
- RMT 15: Close-In Decibel Value 55.7
  Distant Decibel Value 55.3
- RMT 16: Close-In Decibel Value 59.2
  Distant Decibel Value 59.4
- RMT 17: Close-In Decibel Value 49.2
  Distant Decibel Value 48.7
- RMT 18: Close-In Decibel Value 57.1
  Distant Decibel Value 57.3
- RMT 19: Close-In Decibel Value 57.1
  Distant Decibel Value 59.7
- RMT 20: Close-In Decibel Value 49.2
  Distant Decibel Value 48.7
- RMT 21: Close-In Decibel Value 57.1
  Distant Decibel Value 59.7
- RMT 22: Close-In Decibel Value 59.2
  Distant Decibel Value 59.4
- RMT 23: Close-In Decibel Value 59.6
  Distant Decibel Value 55.3
- RMT 24: Close-In Decibel Value 59.2
  Distant Decibel Value 59.4
- RMT 25: Close-In Decibel Value 59.6
  Distant Decibel Value 55.3
- RMT 26: Close-In Decibel Value 59.2
  Distant Decibel Value 59.4
- RMT 27: Close-In Decibel Value 55.9
  Distant Decibel Value 55.3
- RMT 28: Close-In Decibel Value 59.2
  Distant Decibel Value 59.4
- RMT 29: Close-In Decibel Value 52.5
  Distant Decibel Value 52
Attachment G: Grid Point Decibel Levels at Remote Monitoring Towers (RMTs) from Noise Abatement Profile Contours - Bloomington, Burnsville, Apple Valley, Eagan and Inver Grove Heights
TO: MSP Noise Oversight Committee (NOC)  
FROM: Chad E. Leqve, Manager – Noise, Environment and Planning  
SUBJECT: CONSIDERATION OF SOUTH MINNEAPOLIS NOISE MONITORING REQUEST  
DATE: May 2, 2012

Following the March 21, 2012 Noise Oversight Committee (NOC) meeting, Minneapolis NOC Representative John Quincy forwarded a request, on behalf of Mr. Bob Friedman, for the deployment of a mobile noise monitor in South Minneapolis in the area north of Hiawatha Golf Course between 19th Avenue South and 28th Avenue South. Representative Quincy requested that the item be placed on the May 16, 2012 NOC meeting agenda for the Committee’s consideration.

Mr. Friedman’s monitoring request is largely the result of his concern that the present array of Metropolitan Airport Commission Noise and Operation Monitoring System (MACNOMS) Remote Monitoring Towers (RMT) does not accurately represent the aircraft noise he experiences at his home. The closest RMT (#8) is located approximately four blocks west of Mr. Friedman’s house.

The Metropolitan Airports Commission (MAC) Noise Program Office has mobile noise monitoring equipment that can be configured to replicate the functionality of a MACNOMS 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 into MACNOMS. Once the data are in the system, MAC staff can provide analysis similar to the types of analyses (found in the NOC Technical Advisor’s Report) conducted on data from the permanent RMT sites.

Relative to Mr. Friedman’s request, if the NOC determines that providing the mobile noise monitoring is warranted, staff would recommend the deployment of one mobile monitor for two weeks in a suitable location on Mr. Friedman’s property, or at another mutually agreeable location if one does not exist on his property. The monitor would be configured in a manner consistent with the instrumentation at the permanent RMT sites.

Upon completion of the monitoring, MAC staff would provide an analysis focusing on the monitoring location in a manner consistent with the information that is provided on a monthly basis in the NOC Technical Advisor’s Report for all permanent RMT sites. A copy of the completed report would be provided to Mr. Friedman and the NOC.

At the May 16, 2012 NOC meeting staff will seek Committee direction on this monitoring request.
Committee Action
Determine if a mobile noise monitoring study is warranted and, if so, provide staff with direction on the monitoring setup and reporting.
MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

FROM: Chad E. Leqve, Manager – Noise, Environment and Planning

SUBJECT: SECOND QUARTER 2012 PUBLIC INPUT MEETING COMMENTS

DATE: May 2, 2012

One of the elements of the Metropolitan Airports Commission’s (MAC) approved framework for the MSP Airport Noise Oversight Committee (NOC) requires MAC staff to conduct quarterly public input meetings. The intent is to ensure residents’ concerns are considered as part of the ongoing effort by the MAC and the NOC to address noise issues around MSP. This memorandum provides a summary of the comments received at the most recent public input meeting. The NOC may also review these topics as possible future action items if the members so desire.

On April 24, 2012 MAC Noise Program staff conducted the second quarter 2012 Public Input Meeting; six people attended the meeting and two individuals made comments. MAC staff responded to questions at the meeting and is also providing a written response to the questions. Additionally, two comments were received prior to the meeting via the public input form available on the MAC Noise Program Website. The comments and associated responses can be found on the MAC Noise Program’s website accessible on the Internet at www.macnoise.com when they are completed.

In summary, questions related to aircraft overflights in Richfield, the nature of nighttime operation agreements with the airlines, noise mitigation eligibility in Edina, and arrival operations over Apple Valley. Additionally, concerns were raised related to the altitude and frequency of aircraft flights over South Minneapolis.

The next quarterly public input meeting is planned for July 24, 2012.