

# 2007 Annual Noise Report

## January 1–December 31, 2007 Results

The number of potential Class II NEPS violations registered during 2007 is one. This potential Class II NEPS violation occurred in AREA 3 at E, -1. The potential Class II NEPS violation for 2006 also occurred in AREA 3 at E, -1. Please see page 7 for DEN NEPS information.

There was no potential 65 DNL noise contour violation for the quarter. The 65 DNL contour continued to be completely contained within the boundaries of the City and County of Denver. Please see page 6 for DEN contour map.

There was a 33% increase in noise complaints received in 2007, as compared to the same period in 2006 (1072 vs. 713). Five households registered a combined 46% of total complaints with 82 households registering complaints. There was a decrease of 57% in households registering complaints in 2007 compared to 2006 (82 vs. 145). The percentage of complaints received during Nighttime Aircraft Operations (10:00pm to 7:00am) for 2007 was 13% of all complaints received. Please see pages 8 –10 for complete complaint and operational data.

### (Don't) Go West Young Man?

In order to reduce noise impact west of DIA and to ensure compliance with NEPS limits in NEPS Area 2, in 1995 DIA in cooperation with the airlines and the FAA implemented a westbound noise abatement departure procedure. This procedure was designed to address the disproportionate noise impact caused by the noisiest aircraft in the fleet by diverting them away from noise sensitive areas to the west. While many of these older noisier aircraft were ultimately retired, today there are still a relatively small number of older aircraft that generate much more noise than current generation designs do.

To continue efforts to reduce noise impact west of the airport, the westbound procedure was revised several years ago to include so-called “Noise-Critical Aircraft.” The most common of these aircraft at DIA is the MD-80. A single MD-80 on departure has the same overall noise impact as the combined noise from roughly 100 current generation aircraft, like the Airbus A-320 or the Boeing 737-800. Because of this disproportionate impact, the DIA Noise Abatement Office continues to solicit greater compliance with the procedure, and to encourage airlines to accelerate retirement of Noise Critical Aircraft as soon as possible.

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#### Special points of interest:

- One Possible NEPS Violation for Jan–Dec, 2007.
- Complaints are up 33% from 2006.
- Aircraft operations are up.
- 2007 complaint map, page 9.
- See page 10 for 2007 runway usage.

# DEN Airport Noise and Operations System

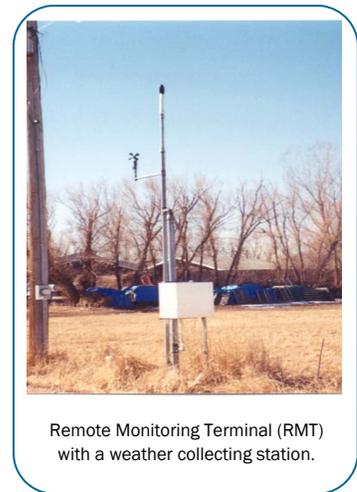
The DEN Airport Noise and Operations Monitoring System (ANOMS) is a state-of-the-art computer system designed to enable the City and County of Denver to monitor aircraft noise in the vicinity of the airport. In addition to monitoring noise levels, the system calculates Noise Exposure Performance Standards (NEPS) at 101 grid points in Adams County (see map on page 4 for NEPS locations).

The DEN ANOMS system monitors noise levels at 27 permanent and 4 portable noise monitoring terminals. These terminals are located throughout the Denver metro area (see map

on page 4 for RMT locations).

The system also records the movement of all aircraft in the vicinity of DEN by utilizing FAA air traffic control radar data. This makes it possible to match actual flights with noise events.

In addition, the ANOMS system records weather information from three remote stations, which include a RACAL recording device to record pilot/controller radio transmissions.



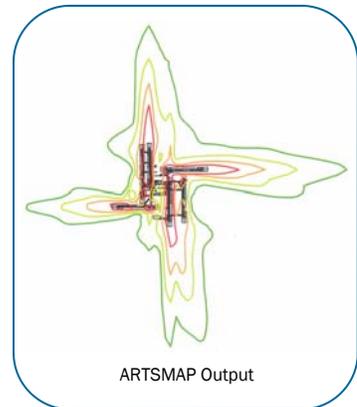
Remote Monitoring Terminal (RMT) with a weather collecting station.

## ARTSMAP

ARTSMAP is a specially designed noise modeling program that automatically creates noise contours. ARTSMAP is designed to create contours from actual radar flight tracks that our office receives from the FAA ARTS system which is sent via modem, eliminating the need for manual data manipulation. The ARTSMAP software is installed on a computer in the Noise Abatement Office. The pro-

gram analyzes, views, reports, and stores the data.

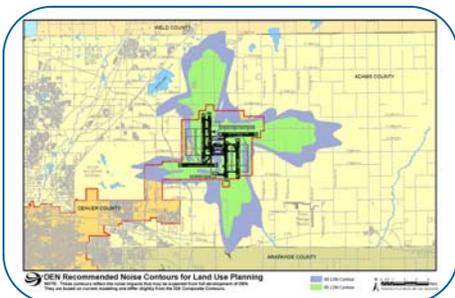
Currently, ARTSMAP is used at several major airports nationally. It allows the DEN Noise Abatement Office to perform noise data analysis, generate daily automated noise contours, receive detailed runway utilization, and airline fleet mix identification.



ARTSMAP Output

## Land Use and Zoning

Urban growth and development in the areas surrounding DEN, particularly non-compatible residential and other noise-sensitive land uses, is of utmost concern to the City and County of Denver.



The Noise Office has developed noise contours surrounding the airport, inside which certain types of land uses are not recommended. The 65 Ldn noise contour (average decibel level with a 10 decibel penalty applied to nighttime operations) is a line inside which, under Federal guidelines, no residential development should occur.

The operational 65 Ldn noise contour for the airport, as created by ARTSMAP, is included in this report.

However, for DEN, the 60 Ldn noise contour is used for compatible land use planning by the surrounding jurisdictions, in accordance with guidelines promulgated by the Denver Regional Council of Governments and the Denver/Adams County Intergovernmental Agreement. Additional mapping for DEN that includes the applicable noise contours is available upon request.

## DEN Noise Hotline Policy

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The purpose of the DEN Noise Complaint Hotline is to provide an opportunity for individuals to express their concerns regarding noise generated by aircraft operating at DEN. Citizens are asked to leave their name, address and the date and time of their complaint on the hotline. Complaints are downloaded daily by our Noise Analysts and then transcribed into the ANOMS system, where specific complaints can be matched to individual flight tracks. It is essential for all information to be entered correctly in order for the system to be effective.

Profanity will not be tolerated, and will result in the complaint not being registered. Any attempt to deliberately tie-up or abuse the Hotline may result in police action. Phone harassment is a state criminal offense and can carry a jail sentence and/or fine. Threats involving aircraft and/or the airport are a very serious matter and are a federal criminal offense. To make a threat, even jokingly, will result in a notification to the Denver Police Department and may involve an FBI investigation.



## Glossary of Terms

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**Sound:** A rapid variation in air pressure, which is perceived by the ear and brain as sound.

**Noise:** Generally considered to be any sound, which is deemed undesirable by an individual.

**Decibel:** Sound is measured by its pressure or energy in terms of decibels. The decibel scale is logarithmic; when the decibel level increases by 6 dB, the measured sound is twice as loud.

**Noise Abatement:** A measure or action that minimizes the amount or impact of noise on the environs of an airport. Noise abatement measures include aircraft operating procedures and use or disuse of certain runways or flight tracks. These operating procedures are controlled by the FAA.

**A-Weighted Sound Level (dBA):** A type of sound level measurement which reduces the effect of very high and very low frequencies in order to mimic the response of the human

ear. Nearly all aircraft sound level measurement is conducted using A-weighting.

**Equivalent Continuous Sound Level (Leq):** A measurement of the average sound energy experienced over a period of time. This average sound level is expressed in decibels, and includes a notation of the period of time, which it covers (such as Leq (24) for an average of the sound level over a 24-hour period).

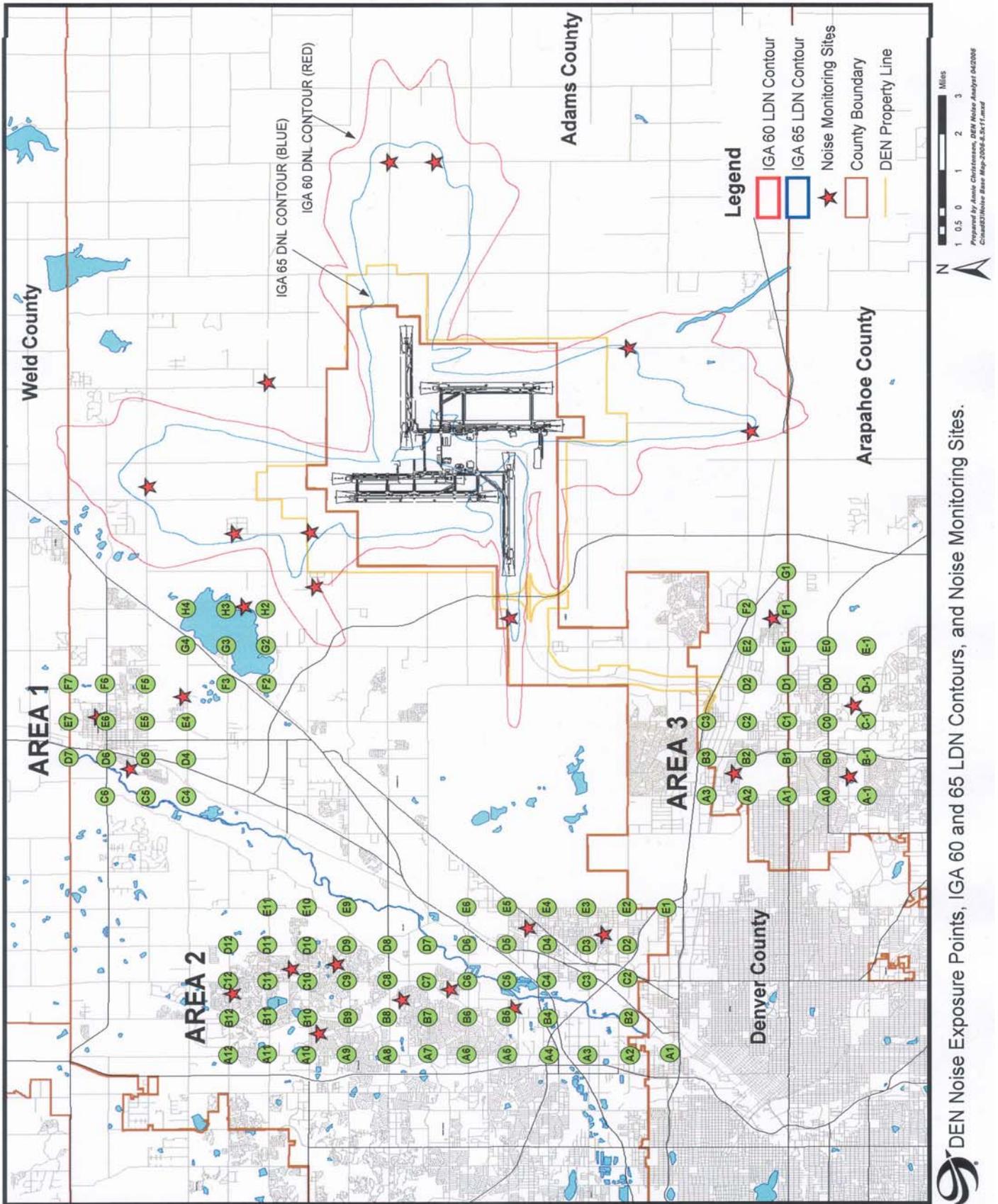
**Day Night Level (Ldn):** Also referred to as DNL. Similar to a Leq measurement, but is conducted over at least a 24-hour time span and includes a 10dB nighttime penalty. For an Ldn calculation, all noise that occurs at night (defined as 10:00 pm to 7:00 am) is artificially increased for the public's increased sensitivity to noise during these hours.

**Noise Contour:** A line surrounding an airport that encloses a geographic region, which is exposed to a particu-

lar Ldn level. These contour lines are nested in such a way that contours closer to the airport generally surround areas that experience higher noise levels than contours farther out. Annual Ldn contours are used to determine whether certain types of zoning or land uses are compatible with particular annual Ldn noise levels. 65 Ldn is considered by many federal agencies to be the level at which residential land use becomes incompatible.

**Remote Monitoring Terminal (RMT):** Consists of a noise level analyzer, a weatherproof microphone, a system controller, a power supply, and a dedicated telephone line to download noise data to the ANOMS system, all mounted in a weatherproof cabinet.

# Noise Exposure Performance Standards (NEPS) Grid Coordinates, IGA Contour, and Remote Monitoring Terminal (RMT) Locations



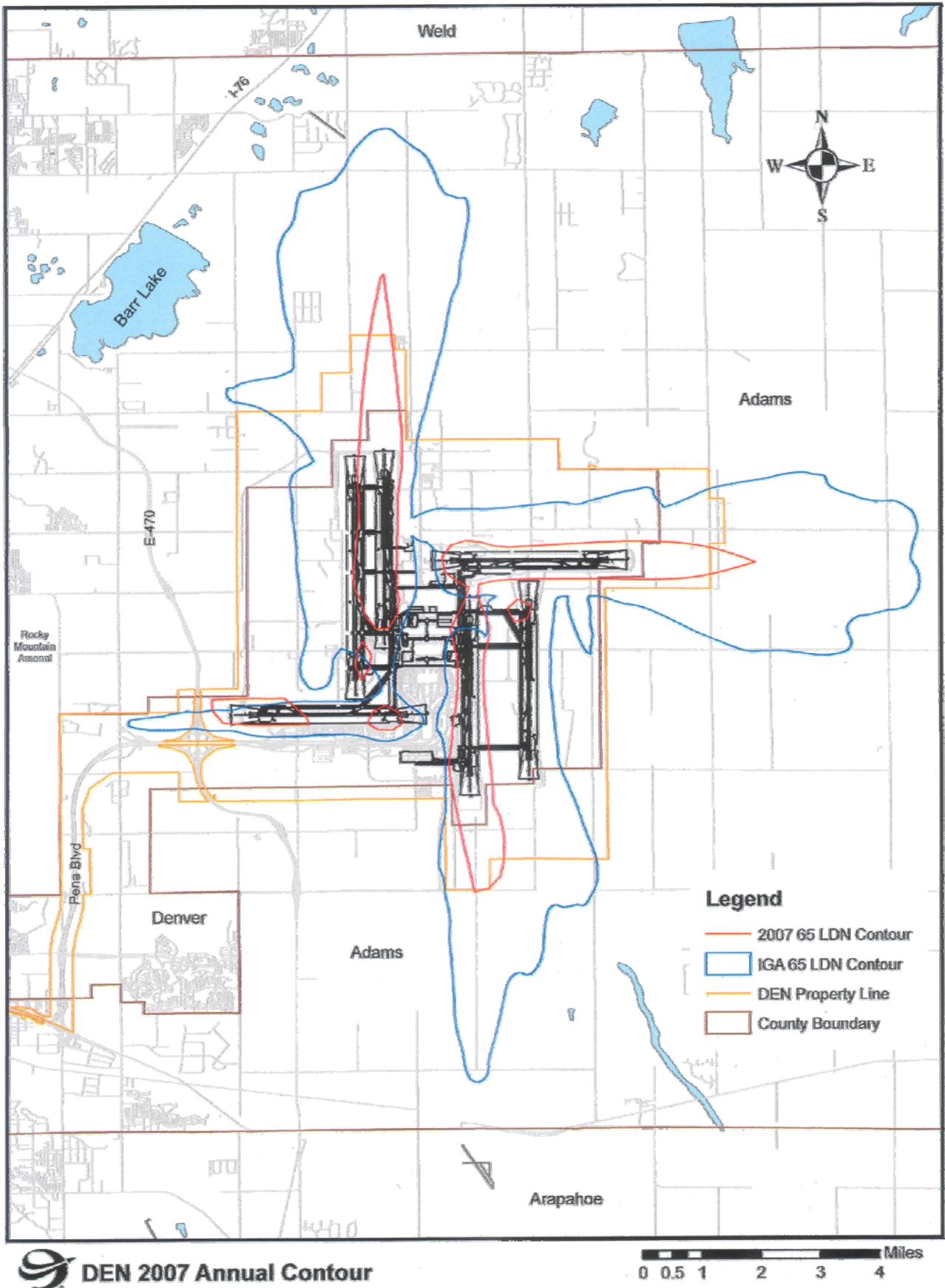
DEN Noise Exposure Points, IGA 60 and 65 LDN Contours, and Noise Monitoring Sites.

## 2007 Cumulative Information

January 1, 2007 through December 31, 2007

Please Note: This report **does not** include the impact of extraordinary weather to the NEPS values.

# January 1–December 31, 2007 DEN 65 LDN Contour



# January 1–December 31, 2007 Denver/Adams County IGA NEPS Values

| Area 2<br>January 1 through December 31, 2007 |                     |                     |                |
|---|---------------------|---------------------|----------------|
| Grid Points                                   | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,1   | 38.6                | 36.6                | -2.0           |
| A,2   | 37.6                | 37.5                | -0.1           |
| A,3   | 42.3                | 38.8                | -3.5           |
| A,4   | 45.3                | 40.3                | -5.0           |
| A,5   | 43.9                | 41.3                | -2.6           |
| A,6   | 37.5                | 39.3                | 1.8            |
| A,7   | 37.7                | 37.3                | -0.5           |
| A,8   | 36.5                | 35.9                | -0.6           |
| A,9   | 36.3                | 35.8                | -0.5           |
| A,10  | 37.6                | 36.0                | -1.6           |
| A,11  | 39.2                | 35.4                | -3.8           |
| A,12  | 41.2                | 34.4                | -6.8           |
| B,2   | 39.5                | 37.8                | -1.7           |
| B,4   | 42.5                | 40.9                | -1.6           |
| B,5   | 43.1                | 42.2                | -0.9           |
| B,6   | 39.0                | 40.0                | 1.0            |
| B,7   | 39.0                | 37.4                | -1.6           |
| B,8   | 38.0                | 36.5                | -1.5           |
| B,9   | 38.3                | 37.2                | -1.1           |
| B,10  | 39.0                | 37.4                | -1.6           |
| B,11  | 40.4                | 36.5                | -3.9           |
| B,12  | 42.6                | 35.5                | -7.1           |
| C,2   | 41.0                | 38.5                | -2.5           |
| C,3   | 43.3                | 39.4                | -3.9           |
| C,4   | 43.5                | 41.5                | -2.0           |
| C,5   | 43.4                | 43.3                | -0.1           |
| C,6   | 43.3                | 40.6                | -2.7           |
| C,7   | 43.3                | 37.7                | -5.6           |
| C,8   | 42.6                | 37.4                | -5.2           |
| C,9   | 42.2                | 38.7                | -3.5           |
| C,10  | 41.6                | 38.4                | -3.2           |
| C,11  | 42.5                | 36.8                | -5.7           |
| C,12  | 44.3                | 35.5                | -8.8           |
| D,2   | 41.7                | 39.4                | -2.3           |
| D,3   | 46.2                | 39.8                | -6.4           |
| D,4   | 48.4                | 42.1                | -6.3           |
| D,5   | 48.2                | 44.5                | -3.7           |
| D,6   | 46.2                | 41.1                | -5.1           |
| D,7   | 44.2                | 38.1                | -6.1           |
| D,8   | 43.7                | 38.8                | -4.9           |
| D,9   | 43.1                | 39.8                | -3.3           |
| D,10  | 44.9                | 38.4                | -6.5           |
| D,11  | 44.5                | 36.5                | -8.1           |
| D,12  | 45.1                | 35.0                | -10.1          |
| E,1   | 42.4                | 39.0                | -3.4           |
| E,2   | 42.2                | 40.5                | -1.8           |
| E,3   | 46.7                | 40.5                | -6.2           |
| E,4   | 51.2                | 42.8                | -8.4           |
| E,5   | 51.0                | 45.9                | -5.1           |
| E,6   | 44.6                | 41.8                | -2.8           |
| E,9   | 43.1                | 40.3                | -2.9           |
| E,10  | 43.1                | 38.2                | -5.0           |
| E,11  | 46.1                | 36.0                | -10.1          |

| Area 1<br>January 1 through December 31, 2007 |                     |                     |                |
|---|---------------------|---------------------|----------------|
| Grid Points                                   | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| C,4   | 44.2                | 35.3                | -8.9           |
| C,5   | 36.7                | 34.0                | -2.7           |
| C,6   | 36.0                | 33.6                | -2.4           |
| D,4   | 41.1                | 34.7                | -6.4           |
| D,5   | 34.2                | 34.6                | 0.4            |
| D,6   | 36.0                | 34.7                | -1.3           |
| D,7   | 41.4                | 35.4                | -6.0           |
| E,4   | 38.3                | 34.3                | -4.0           |
| E,5   | 34.8                | 34.9                | 0.1            |
| E,6   | 36.7                | 34.4                | -2.3           |
| E,7   | 41.4                | 34.7                | -6.7           |
| F,2   | 51.7                | 38.0                | -13.7          |
| F,3   | 43.7                | 34.8                | -8.9           |
| F,5   | 37.3                | 33.1                | -4.2           |
| F,6   | 38.5                | 33.4                | -5.1           |
| F,7   | 42.1                | 34.2                | -7.9           |
| G,2   | 51.2                | 39.0                | -12.3          |
| G,3   | 42.1                | 35.1                | -7.0           |
| G,4   | 40.2                | 33.3                | -6.9           |
| H,2   | 50.1                | 40.5                | -9.7           |
| H,3   | 46.0                | 36.2                | -9.8           |
| H,4   | 46.1                | 34.2                | -11.9          |

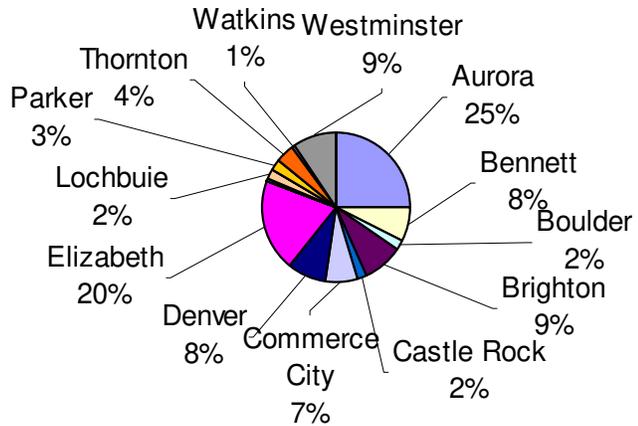
| Area 3<br>January 1 through December 31, 2007 |                     |                     |                |
|---|---------------------|---------------------|----------------|
| Grid Points                                   | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,-1  | 38.9                | 32.2                | -6.8           |
| A,0   | 39.6                | 32.2                | -7.4           |
| A,1   | 43.2                | 32.7                | -10.5          |
| A,2   | 45.7                | 33.6                | -12.1          |
| A,3   | 45.6                | 35.1                | -10.5          |
| B,-1  | 37.9                | 32.3                | -5.7           |
| B,0   | 39.2                | 32.1                | -7.1           |
| B,1   | 42.6                | 32.4                | -10.3          |
| B,2   | 45.8                | 33.2                | -12.6          |
| B,3   | 45.7                | 34.5                | -11.2          |
| C,-1  | 36.7                | 33.0                | -3.7           |
| C,0   | 37.1                | 32.9                | -4.2           |
| C,1   | 39.5                | 32.8                | -6.7           |
| C,2   | 44.8                | 33.3                | -11.5          |
| C,3   | 46.5                | 34.4                | -12.1          |
| D,-1  | 32.6                | 33.5                | 0.9            |
| D,0   | 33.3                | 33.1                | -0.3           |
| D,1   | 37.3                | 33.0                | -4.3           |
| D,2   | 43.0                | 33.1                | -9.9           |
| E,-1  | 31.4                | 33.5                | 2.1            |
| E,0   | 33.1                | 32.5                | -0.6           |
| E,1   | 36.2                | 32.1                | -4.1           |
| E,2   | 40.6                | 32.7                | -7.9           |
| F,1   | 36.5                | 32.0                | -4.5           |
| F,2   | 39.4                | 32.7                | -6.7           |
| G,1   | 42.5                | 33.0                | -9.6           |

# January 1–December 31, 2007 DEN Complaint and Operational Statistics

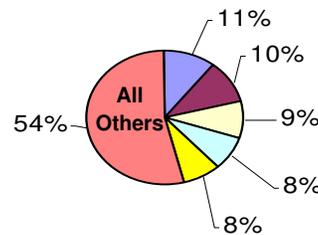
## Noise Complaint Calls by Community January – December \*

| Community*           | No. of Calls<br>2007 | No. of Calls<br>2006 |
|----------------------|----------------------|----------------------|
| Arvada               | 0                    | 1                    |
| Aurora               | 267                  | 207                  |
| Bennett              | 82                   | 11                   |
| Boulder              | 19                   | 12                   |
| Brighton             | 93                   | 50                   |
| Castle Rock          | 23                   | 0                    |
| Commerce City        | 80                   | 95                   |
| Denver               | 88                   | 26                   |
| Elizabeth            | 216                  | 81                   |
| Englewood            | 0                    | 1                    |
| Evergreen            | 0                    | 7                    |
| Fort Lupton          | 0                    | 3                    |
| Golden               | 0                    | 4                    |
| Henderson            | 0                    | 6                    |
| Hudson               | 3                    | 2                    |
| Kiowa                | 0                    | 1                    |
| Lafayette            | 0                    | 1                    |
| Lakewood             | 0                    | 25                   |
| Lochbuie             | 21                   | 43                   |
| Northglenn           | 0                    | 11                   |
| Parker               | 27                   | 25                   |
| Thornton             | 44                   | 28                   |
| Watkins              | 9                    | 29                   |
| Westminster          | 100                  | 44                   |
| <b>Overall Total</b> | <b>1,072</b>         | <b>713</b>           |

### Total Calls for 2007 by Community\*



### Top Five Complainants Vs. All Others

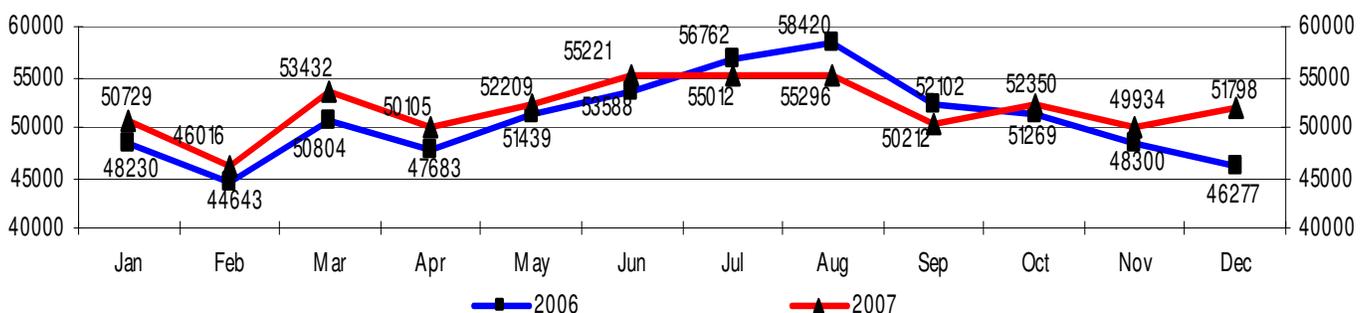


\* See map on next page for location of known noise complaints.

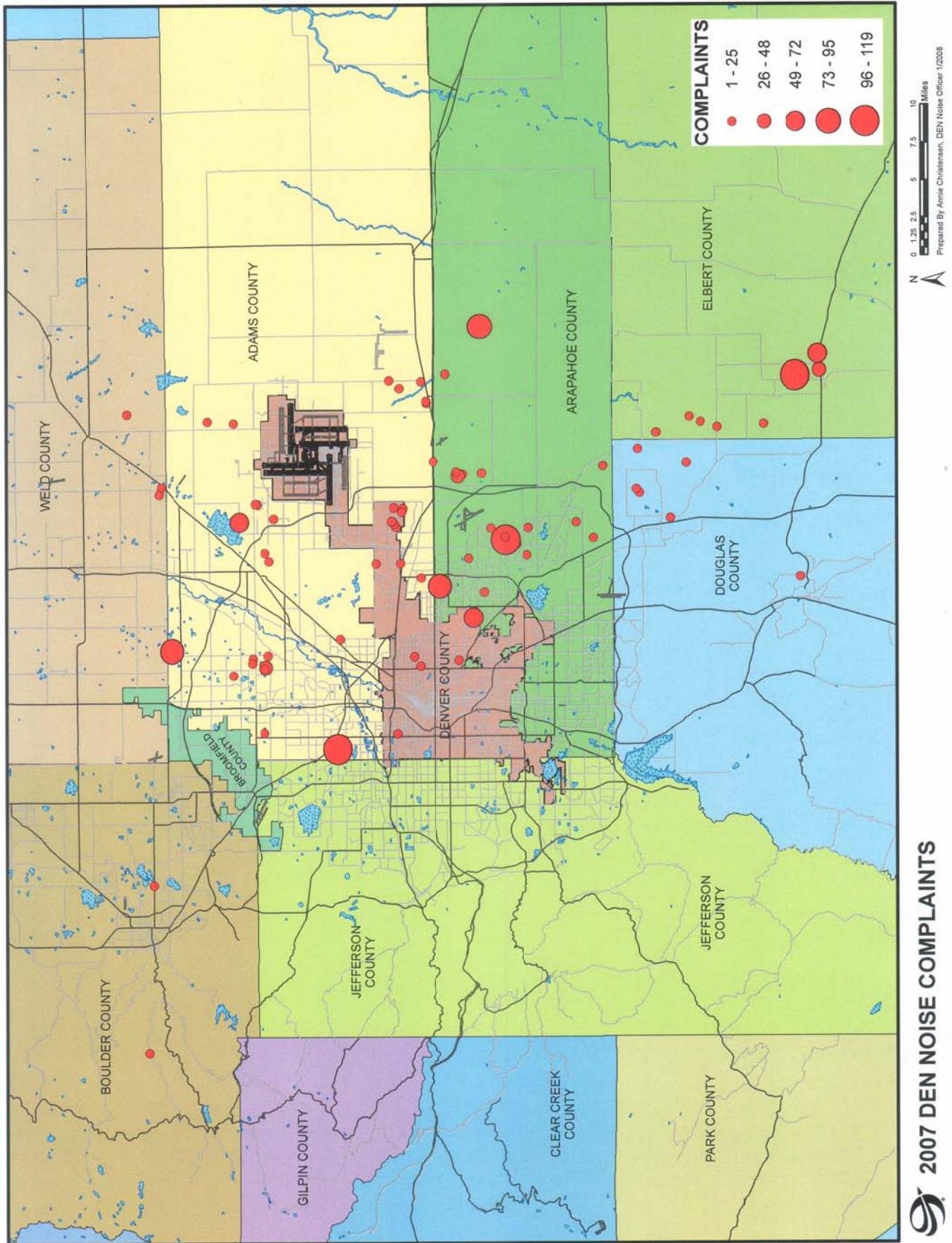
## Monthly Comparison: Noise Complaint Calls - Daytime / Nighttime

| Time Complaint Received              | January   | February  | March     | April     | May        | June       | July       | August     | September  | October   | November  | December  | 2007 Total   |
|--------------------------------------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|-----------|-----------|-----------|--------------|
| Day Hours<br>(7:00 am to 9:59 pm)    | 8         | 59        | 72        | 70        | 90         | 118        | 156        | 150        | 137        | 34        | 28        | 12        | <b>934</b>   |
| Night Hours<br>(10:00 pm to 6:59 am) | 2         | 2         | 5         | 9         | 11         | 31         | 31         | 23         | 14         | 6         | 2         | 2         | <b>138</b>   |
| <b>Total</b>                         | <b>10</b> | <b>61</b> | <b>77</b> | <b>79</b> | <b>101</b> | <b>149</b> | <b>187</b> | <b>173</b> | <b>151</b> | <b>40</b> | <b>30</b> | <b>14</b> | <b>1,072</b> |

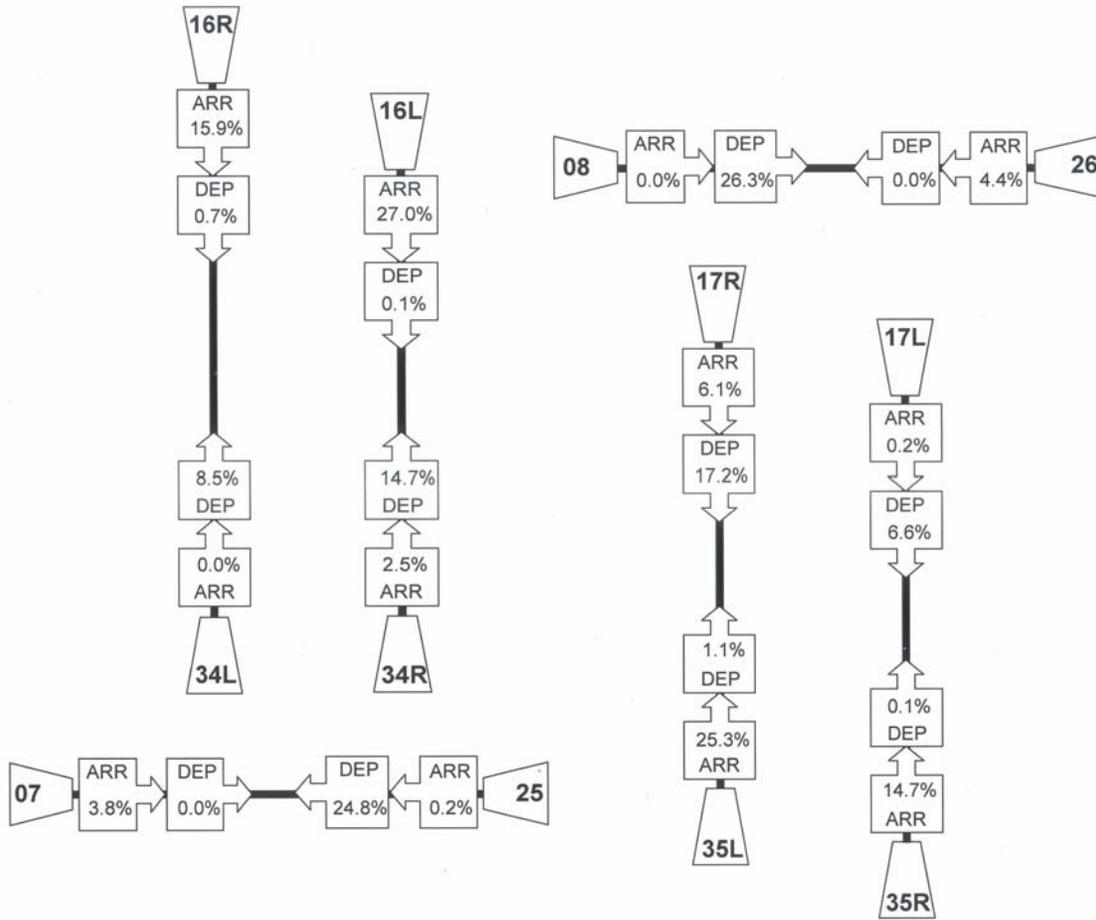
## Monthly Comparison: 2006 Total Operations vs. 2007 Total Operations



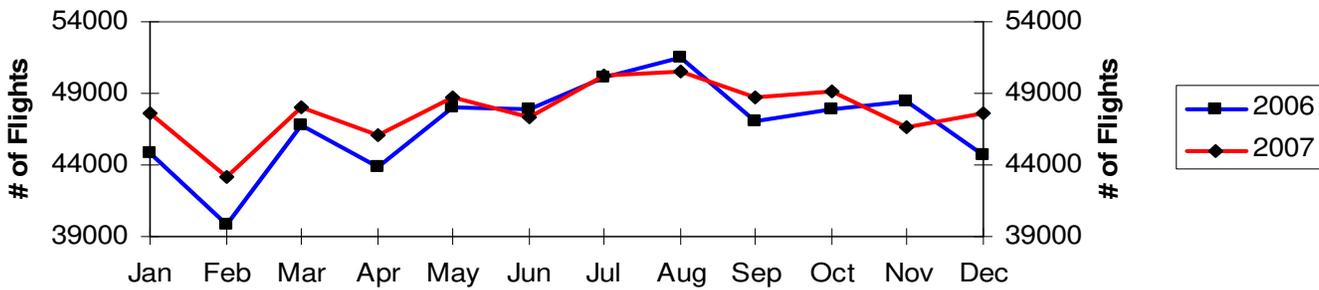
# January 1 - December 31, 2007—DEN Complaint Map



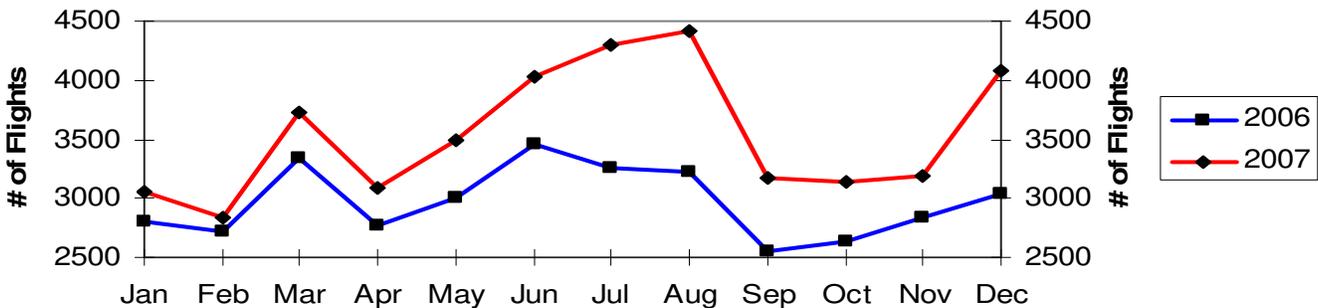
# January 1–December 31, 2007 DEN Runway Utilization and Day/Night Statistics



### 2006 vs. 2007 DEN Daytime Arrivals & Departures



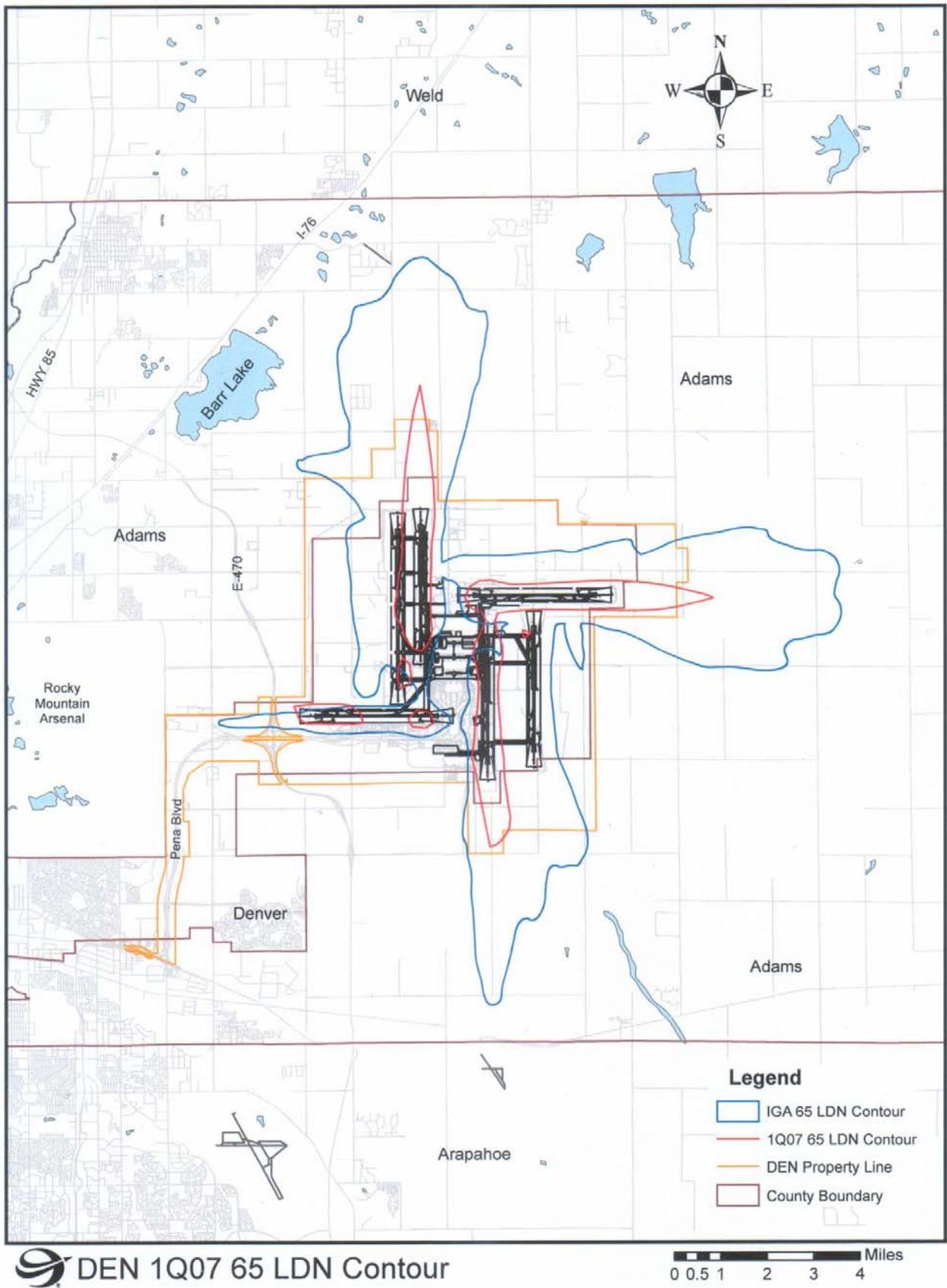
### 2006 vs. 2007 DEN Nighttime Arrivals & Departures



## Quarterly Cumulative Contour Maps and NEPS Tables

- 1Q07 January 1, 2007 through March 31, 2007 (pages 11-12)
- 2Q07 January 1, 2007 through June 30, 2007 (pages 13-14)
- 3Q07 January 1, 2007 through September 30, 2007 (pages 15-16)

# January 1, 2007 through March 31, 2007 Contour Map



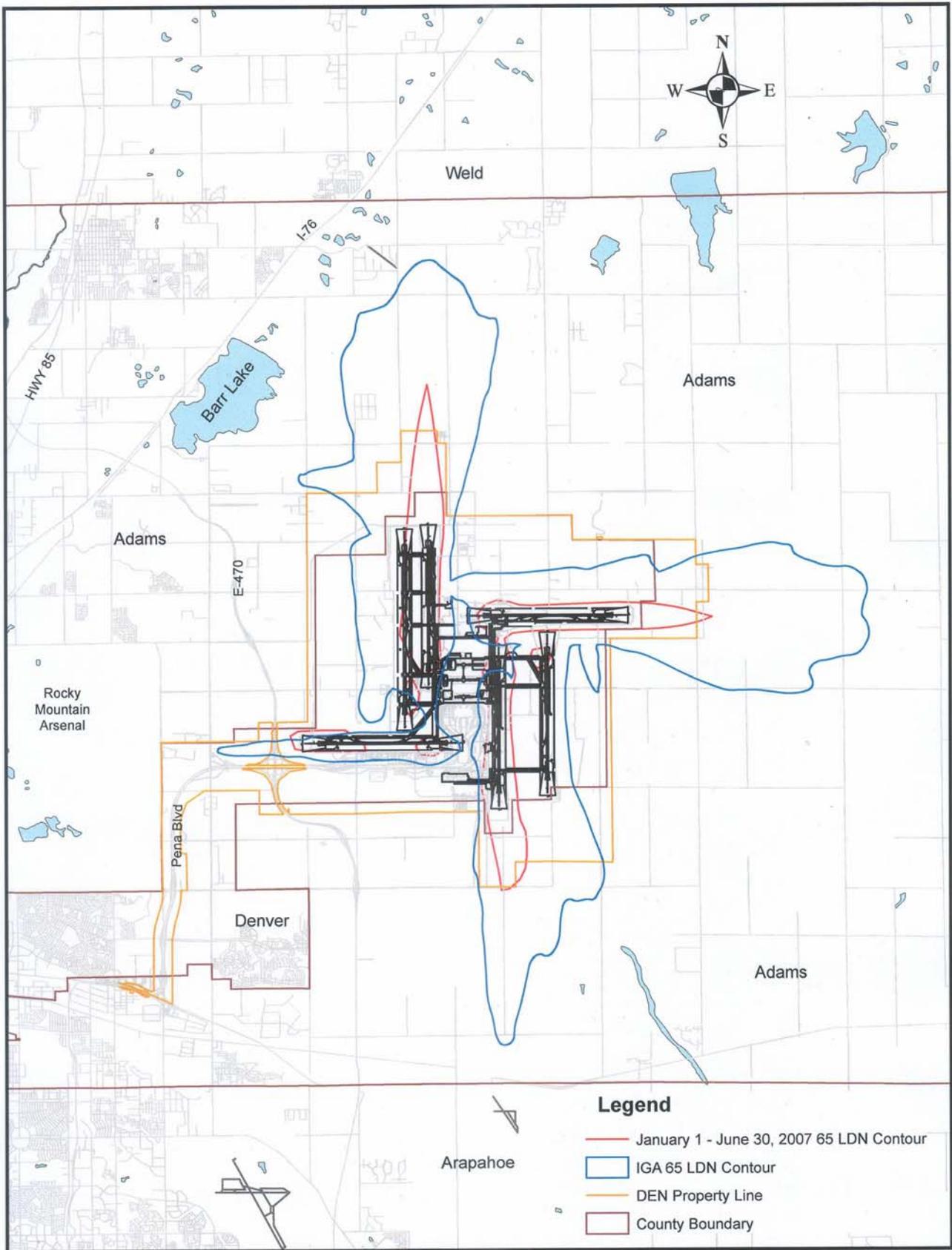
# January 1, 2007 through March 31, 2007 NEPS Table

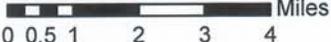
| Area 2<br>1Q07 |                     |                     |                |
|----------------|---------------------|---------------------|----------------|
| Grid Points    | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,1            | 38.6                | 36.4                | -2.2           |
| A,2            | 37.6                | 37.5                | -0.1           |
| A,3            | 42.3                | 38.9                | -3.5           |
| A,4            | 45.3                | 40.0                | -5.3           |
| A,5            | 43.9                | 40.4                | -3.5           |
| A,6            | 37.5                | 38.6                | 1.1            |
| A,7            | 37.7                | 36.8                | -0.9           |
| A,8            | 36.5                | 35.5                | -1.0           |
| A,9            | 36.3                | 35.2                | -1.2           |
| A,10           | 37.6                | 35.1                | -2.5           |
| A,11           | 39.2                | 34.6                | -4.6           |
| A,12           | 41.2                | 33.6                | -7.6           |
| B,2            | 39.5                | 37.8                | -1.8           |
| B,4            | 42.5                | 40.7                | -1.8           |
| B,5            | 43.1                | 41.4                | -1.8           |
| B,6            | 39.0                | 39.2                | 0.2            |
| B,7            | 39.0                | 37.1                | -1.9           |
| B,8            | 38.0                | 36.1                | -1.9           |
| B,9            | 38.3                | 36.4                | -1.9           |
| B,10           | 39.0                | 36.4                | -2.6           |
| B,11           | 40.4                | 35.6                | -4.8           |
| B,12           | 42.6                | 34.7                | -7.9           |
| C,2            | 41.0                | 38.4                | -2.7           |
| C,3            | 43.3                | 39.4                | -3.9           |
| C,4            | 43.5                | 41.3                | -2.2           |
| C,5            | 43.4                | 42.4                | -1.0           |
| C,6            | 43.3                | 39.8                | -3.5           |
| C,7            | 43.3                | 37.3                | -6.0           |
| C,8            | 42.6                | 36.9                | -5.7           |
| C,9            | 42.2                | 37.8                | -4.4           |
| C,10           | 41.6                | 37.4                | -4.2           |
| C,11           | 42.5                | 36.1                | -6.4           |
| C,12           | 44.3                | 34.8                | -9.5           |
| D,2            | 41.7                | 39.0                | -2.7           |
| D,3            | 46.2                | 39.8                | -6.4           |
| D,4            | 48.4                | 41.9                | -6.5           |
| D,5            | 48.2                | 43.5                | -4.7           |
| D,6            | 46.2                | 40.4                | -5.8           |
| D,7            | 44.2                | 37.7                | -6.5           |
| D,8            | 43.7                | 38.0                | -5.7           |
| D,9            | 43.1                | 38.8                | -4.3           |
| D,10           | 44.9                | 37.6                | -7.3           |
| D,11           | 44.5                | 35.9                | -8.6           |
| D,12           | 45.1                | 34.4                | -10.7          |
| E,1            | 42.4                | 38.9                | -3.6           |
| E,2            | 42.2                | 40.0                | -2.2           |
| E,3            | 46.7                | 40.4                | -6.4           |
| E,4            | 51.2                | 42.6                | -8.6           |
| E,5            | 51.0                | 44.7                | -6.3           |
| E,6            | 44.6                | 41.0                | -3.6           |
| E,9            | 43.1                | 39.5                | -3.7           |
| E,10           | 43.1                | 37.4                | -5.7           |
| E,11           | 46.1                | 35.4                | -10.7          |

| Area 1<br>1Q07 |                     |                     |                |
|----------------|---------------------|---------------------|----------------|
| Grid Points    | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| C,4            | 44.2                | 34.8                | -9.4           |
| C,5            | 36.7                | 33.6                | -3.2           |
| C,6            | 36.0                | 33.0                | -3.0           |
| D,4            | 41.1                | 34.5                | -6.6           |
| D,5            | 34.2                | 34.4                | 0.2            |
| D,6            | 36.0                | 34.5                | -1.5           |
| D,7            | 41.4                | 35.3                | -6.1           |
| E,4            | 38.3                | 34.0                | -4.3           |
| E,5            | 34.8                | 34.8                | 0.0            |
| E,6            | 36.7                | 34.3                | -2.4           |
| E,7            | 41.4                | 34.7                | -6.7           |
| F,2            | 51.7                | 36.9                | -14.8          |
| F,3            | 43.7                | 33.8                | -9.9           |
| F,5            | 37.3                | 32.6                | -4.7           |
| F,6            | 38.5                | 33.2                | -5.3           |
| F,7            | 42.1                | 34.1                | -8.0           |
| G,2            | 51.2                | 37.7                | -13.5          |
| G,3            | 42.1                | 33.7                | -8.4           |
| G,4            | 40.2                | 32.1                | -8.1           |
| H,2            | 50.1                | 39.2                | -10.9          |
| H,3            | 46.0                | 34.7                | -11.3          |
| H,4            | 46.1                | 33.3                | -12.9          |

| Area 3<br>1Q07 |                     |                     |                |
|----------------|---------------------|---------------------|----------------|
| Grid Points    | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,-1           | 38.9                | 32.0                | -6.9           |
| A,0            | 39.6                | 32.2                | -7.4           |
| A,1            | 43.2                | 32.7                | -10.5          |
| A,2            | 45.7                | 33.8                | -11.9          |
| A,3            | 45.6                | 35.2                | -10.4          |
| B,-1           | 37.9                | 32.1                | -5.8           |
| B,0            | 39.2                | 31.8                | -7.4           |
| B,1            | 42.6                | 32.3                | -10.4          |
| B,2            | 45.8                | 33.0                | -12.8          |
| B,3            | 45.7                | 34.3                | -11.4          |
| C,-1           | 36.7                | 32.3                | -4.4           |
| C,0            | 37.1                | 32.4                | -4.7           |
| C,1            | 39.5                | 32.5                | -7.0           |
| C,2            | 44.8                | 33.0                | -11.8          |
| C,3            | 46.5                | 34.1                | -12.4          |
| D,-1           | 32.6                | 32.9                | 0.3            |
| D,0            | 33.3                | 32.8                | -0.5           |
| D,1            | 37.3                | 32.5                | -4.8           |
| D,2            | 43.0                | 32.6                | -10.4          |
| E,-1           | 31.4                | 32.6                | 1.2            |
| E,0            | 33.1                | 32.0                | -1.1           |
| E,1            | 36.2                | 31.6                | -4.7           |
| E,2            | 40.6                | 31.6                | -9.1           |
| F,1            | 36.5                | 31.1                | -5.4           |
| F,2            | 39.4                | 31.9                | -7.5           |
| G,1            | 42.5                | 33.2                | -9.3           |

# January 1, 2007 through June 30, 2007 Contour Map



 **DEN January 1 - June 30, 2007 65 LDN Contour**  Miles  
0 0.5 1 2 3 4

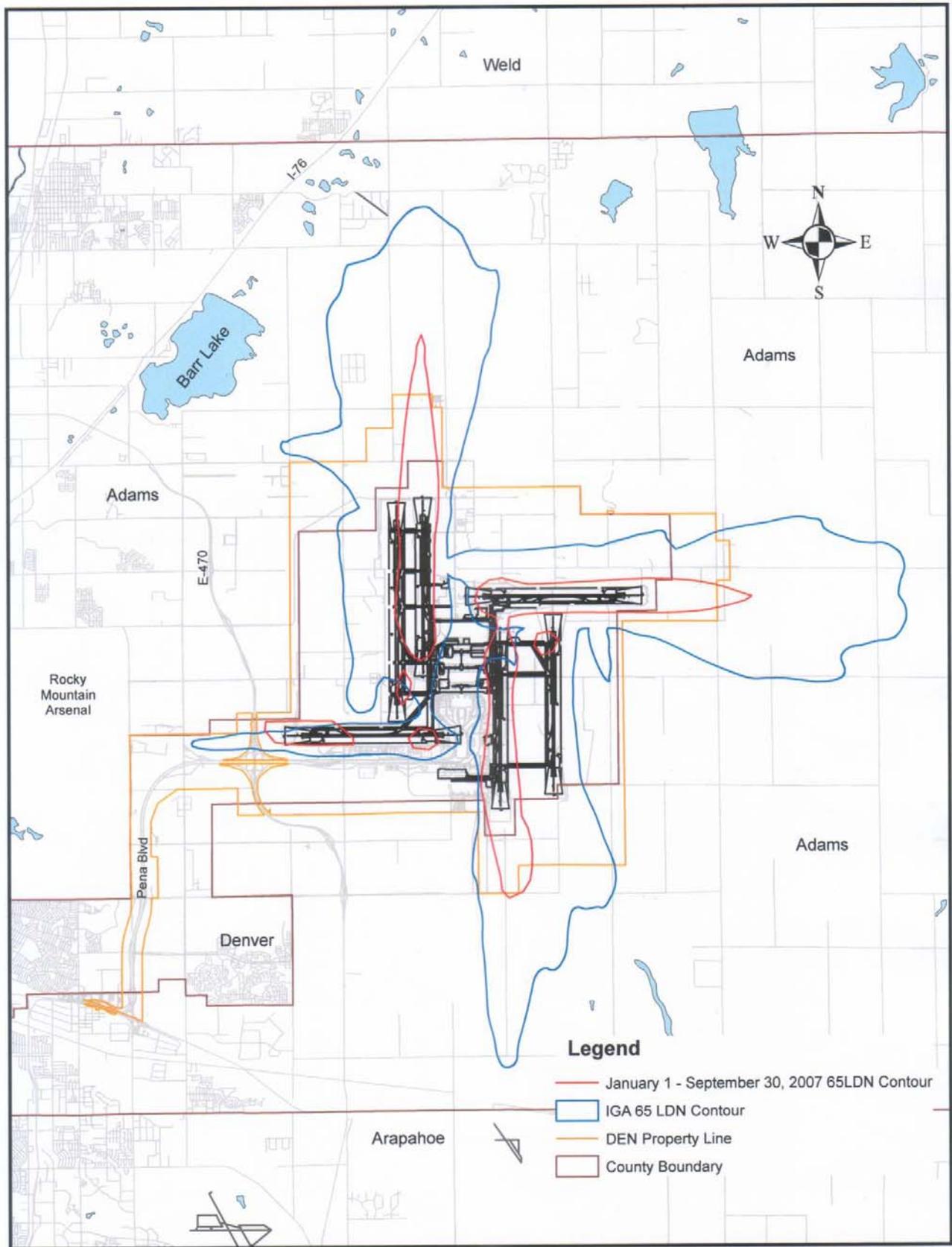
# January 1, 2007 through June 30, 2007 NEPS Table

| Area 2<br>January 1 through June 30, 2007 |                     |                     |                |
|---|---------------------|---------------------|----------------|
| Grid Points                               | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,1                                       | 38.6                | 36.5                | -2.1           |
| A,2                                       | 37.6                | 37.4                | -0.2           |
| A,3                                       | 42.3                | 38.7                | -3.6           |
| A,4                                       | 45.3                | 40.0                | -5.3           |
| A,5                                       | 43.9                | 41.0                | -3.0           |
| A,6                                       | 37.5                | 39.0                | 1.5            |
| A,7                                       | 37.7                | 37.1                | -0.6           |
| A,8                                       | 36.5                | 35.8                | -0.7           |
| A,9                                       | 36.3                | 35.6                | -0.7           |
| A,10                                      | 37.6                | 35.6                | -2.0           |
| A,11                                      | 39.2                | 35.1                | -4.1           |
| A,12                                      | 41.2                | 34.1                | -7.1           |
| B,2                                       | 39.5                | 37.8                | -1.7           |
| B,4                                       | 42.5                | 40.7                | -1.8           |
| B,5                                       | 43.1                | 41.9                | -1.2           |
| B,6                                       | 39.0                | 39.7                | 0.7            |
| B,7                                       | 39.0                | 37.4                | -1.6           |
| B,8                                       | 38.0                | 36.4                | -1.6           |
| B,9                                       | 38.3                | 36.9                | -1.4           |
| B,10                                      | 39.0                | 37.0                | -2.0           |
| B,11                                      | 40.4                | 36.1                | -4.4           |
| B,12                                      | 42.6                | 35.0                | -7.6           |
| C,2                                       | 41.0                | 38.5                | -2.5           |
| C,3                                       | 43.3                | 39.4                | -3.9           |
| C,4                                       | 43.5                | 41.3                | -2.2           |
| C,5                                       | 43.4                | 42.9                | -0.5           |
| C,6                                       | 43.3                | 40.3                | -3.0           |
| C,7                                       | 43.3                | 37.6                | -5.7           |
| C,8                                       | 42.6                | 37.2                | -5.4           |
| C,9                                       | 42.2                | 38.3                | -3.9           |
| C,10                                      | 41.6                | 37.9                | -3.7           |
| C,11                                      | 42.5                | 36.4                | -6.1           |
| C,12                                      | 44.3                | 35.0                | -9.3           |
| D,2                                       | 41.7                | 39.4                | -2.3           |
| D,3                                       | 46.2                | 39.8                | -6.4           |
| D,4                                       | 48.4                | 42.0                | -6.4           |
| D,5                                       | 48.2                | 44.2                | -4.0           |
| D,6                                       | 46.2                | 40.8                | -5.4           |
| D,7                                       | 44.2                | 38.0                | -6.2           |
| D,8                                       | 43.7                | 38.4                | -5.3           |
| D,9                                       | 43.1                | 39.3                | -3.8           |
| D,10                                      | 44.9                | 37.9                | -7.0           |
| D,11                                      | 44.5                | 36.0                | -8.5           |
| D,12                                      | 45.1                | 34.6                | -10.5          |
| E,1                                       | 42.4                | 39.1                | -3.3           |
| E,2                                       | 42.2                | 40.5                | -1.7           |
| E,3                                       | 46.7                | 40.5                | -6.2           |
| E,4                                       | 51.2                | 42.7                | -8.6           |
| E,5                                       | 51.0                | 45.5                | -5.5           |
| E,6                                       | 44.6                | 41.5                | -3.2           |
| E,9                                       | 43.1                | 39.7                | -3.4           |
| E,10                                      | 43.1                | 37.7                | -5.4           |
| E,11                                      | 46.1                | 35.6                | -10.5          |

| Area 1<br>January 1 through June 30, 2007 |                     |                     |                |
|---|---------------------|---------------------|----------------|
| Grid Points                               | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| C,4                                       | 44.2                | 35.1                | -9.1           |
| C,5                                       | 36.7                | 33.8                | -2.9           |
| C,6                                       | 36.0                | 33.4                | -2.6           |
| D,4                                       | 41.1                | 34.6                | -6.5           |
| D,5                                       | 34.2                | 34.5                | 0.3            |
| D,6                                       | 36.0                | 34.7                | -1.3           |
| D,7                                       | 41.4                | 35.4                | -6.0           |
| E,4                                       | 38.3                | 34.2                | -4.1           |
| E,5                                       | 34.8                | 35.0                | 0.2            |
| E,6                                       | 36.7                | 34.4                | -2.3           |
| E,7                                       | 41.4                | 34.8                | -6.6           |
| F,2                                       | 51.7                | 37.6                | -14.1          |
| F,3                                       | 43.7                | 34.5                | -9.2           |
| F,5                                       | 37.3                | 33.1                | -4.2           |
| F,6                                       | 38.5                | 33.6                | -4.9           |
| F,7                                       | 42.1                | 34.3                | -7.8           |
| G,2                                       | 51.2                | 38.6                | -12.6          |
| G,3                                       | 42.1                | 34.7                | -7.5           |
| G,4                                       | 40.2                | 33.4                | -6.8           |
| H,2                                       | 50.1                | 40.2                | -10.0          |
| H,3                                       | 46.0                | 36.1                | -9.9           |
| H,4                                       | 46.1                | 34.5                | -11.6          |

| Area 3<br>January 1 through June 30, 2007 |                     |                     |                |
|---|---------------------|---------------------|----------------|
| Grid Points                               | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,-1                                      | 38.9                | 32.3                | -6.6           |
| A,0                                       | 39.6                | 32.4                | -7.2           |
| A,1                                       | 43.2                | 32.9                | -10.3          |
| A,2                                       | 45.7                | 33.8                | -11.9          |
| A,3                                       | 45.6                | 35.3                | -10.4          |
| B,-1                                      | 37.9                | 32.4                | -5.6           |
| B,0                                       | 39.2                | 32.2                | -7.0           |
| B,1                                       | 42.6                | 32.5                | -10.1          |
| B,2                                       | 45.8                | 33.2                | -12.6          |
| B,3                                       | 45.7                | 34.4                | -11.3          |
| C,-1                                      | 36.7                | 33.0                | -3.7           |
| C,0                                       | 37.1                | 32.9                | -4.2           |
| C,1                                       | 39.5                | 32.8                | -6.7           |
| C,2                                       | 44.8                | 33.3                | -11.5          |
| C,3                                       | 46.5                | 34.3                | -12.2          |
| D,-1                                      | 32.6                | 33.4                | 0.8            |
| D,0                                       | 33.3                | 33.1                | -0.2           |
| D,1                                       | 37.3                | 33.1                | -4.2           |
| D,2                                       | 43.0                | 33.0                | -10.0          |
| E,-1                                      | 31.4                | 33.3                | 1.9            |
| E,0                                       | 33.1                | 32.5                | -0.6           |
| E,1                                       | 36.2                | 32.2                | -4.0           |
| E,2                                       | 40.6                | 33.0                | -7.6           |
| F,1                                       | 36.5                | 32.1                | -4.4           |
| F,2                                       | 39.4                | 33.0                | -6.4           |
| G,1                                       | 42.5                | 33.4                | -9.1           |

# January 1, 2007 through September 30, 2007 Contour Map



 **DEN January 1 - September 30, 2007 65 LDN Contour** 0 0.5 1 2 3 4 Miles

# January 1, 2007 through September 30, 2007 NEPS Table

| Area 2<br>January 1 through September 30, 2007 |                     |                     |                |
|--|---------------------|---------------------|----------------|
| Grid Points                                    | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,1  | 38.6                | 36.8                | -1.8           |
| A,2  | 37.6                | 37.6                | 0.0            |
| A,3  | 42.3                | 38.8                | -3.5           |
| A,4  | 45.3                | 40.3                | -5.0           |
| A,5  | 43.9                | 41.4                | -2.5           |
| A,6  | 37.5                | 39.4                | 1.9            |
| A,7  | 37.7                | 37.3                | -0.4           |
| A,8  | 36.5                | 36.0                | -0.5           |
| A,9  | 36.3                | 35.9                | -0.4           |
| A,10   | 37.6                | 36.1                | -1.5           |
| A,11   | 39.2                | 35.6                | -3.6           |
| A,12   | 41.2                | 34.6                | -6.6           |
| B,2  | 39.5                | 37.9                | -1.6           |
| B,4  | 42.5                | 40.9                | -1.6           |
| B,5  | 43.1                | 42.4                | -0.7           |
| B,6  | 39.0                | 40.1                | 1.1            |
| B,7  | 39.0                | 37.6                | -1.4           |
| B,8  | 38.0                | 36.6                | -1.4           |
| B,9  | 38.3                | 37.3                | -1.0           |
| B,10   | 39.0                | 37.4                | -1.6           |
| B,11   | 40.4                | 36.6                | -3.8           |
| B,12   | 42.6                | 35.6                | -7.0           |
| C,2  | 41.0                | 38.6                | -2.4           |
| C,3  | 43.3                | 39.4                | -3.9           |
| C,4  | 43.5                | 41.6                | -1.9           |
| C,5  | 43.4                | 43.4                | 0.0            |
| C,6  | 43.3                | 40.7                | -2.6           |
| C,7  | 43.3                | 37.8                | -5.5           |
| C,8  | 42.6                | 37.5                | -5.1           |
| C,9  | 42.2                | 38.8                | -3.4           |
| C,10   | 41.6                | 38.4                | -3.2           |
| C,11   | 42.5                | 36.9                | -5.6           |
| C,12   | 44.3                | 35.7                | -8.7           |
| D,2  | 41.7                | 39.5                | -2.2           |
| D,3  | 46.2                | 39.9                | -6.3           |
| D,4  | 48.4                | 42.2                | -6.2           |
| D,5  | 48.2                | 44.7                | -3.5           |
| D,6  | 46.2                | 41.2                | -5.0           |
| D,7  | 44.2                | 38.3                | -5.9           |
| D,8  | 43.7                | 38.9                | -4.8           |
| D,9  | 43.1                | 39.9                | -3.2           |
| D,10   | 44.9                | 38.4                | -6.5           |
| D,11   | 44.5                | 36.5                | -8.0           |
| D,12   | 45.1                | 35.1                | -10.0          |
| E,1  | 42.4                | 39.0                | -3.4           |
| E,2  | 42.2                | 40.6                | -1.6           |
| E,3  | 46.7                | 40.7                | -6.1           |
| E,4  | 51.2                | 42.9                | -8.3           |
| E,5  | 51.0                | 46.1                | -4.9           |
| E,6  | 44.6                | 42.0                | -2.7           |
| E,9  | 43.1                | 40.3                | -2.8           |
| E,10   | 43.1                | 38.2                | -4.9           |
| E,11   | 46.1                | 36.1                | -10.1          |

| Area 1<br>January 1 through September 30, 2007 |                     |                     |                |
|--|---------------------|---------------------|----------------|
| Grid Points                                    | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| C,4  | 44.2                | 35.3                | -8.9           |
| C,5  | 36.7                | 34.1                | -2.6           |
| C,6  | 36.0                | 33.6                | -2.4           |
| D,4  | 41.1                | 34.8                | -6.3           |
| D,5  | 34.2                | 34.7                | 0.4            |
| D,6  | 36.0                | 34.8                | -1.2           |
| D,7  | 41.4                | 35.5                | -5.9           |
| E,4  | 38.3                | 34.3                | -4.0           |
| E,5  | 34.8                | 34.9                | 0.1            |
| E,6  | 36.7                | 34.4                | -2.3           |
| E,7  | 41.4                | 34.7                | -6.7           |
| F,2  | 51.7                | 38.2                | -13.5          |
| F,3  | 43.7                | 34.9                | -8.8           |
| F,5  | 37.3                | 33.2                | -4.1           |
| F,6  | 38.5                | 33.6                | -4.9           |
| F,7  | 42.1                | 34.3                | -7.8           |
| G,2  | 51.2                | 39.2                | -12.0          |
| G,3  | 42.1                | 35.3                | -6.8           |
| G,4  | 40.2                | 33.6                | -6.6           |
| H,2  | 50.1                | 40.9                | -9.2           |
| H,3  | 46.0                | 36.5                | -9.5           |
| H,4  | 46.1                | 34.5                | -11.6          |

| Area 3<br>January 1 through September 30, 2007 |                     |                     |                |
|--|---------------------|---------------------|----------------|
| Grid Points                                    | IGA Annual Leq (24) | Calculated Leq (24) | Difference Leq |
| A,-1   | 38.9                | 32.3                | -6.6           |
| A,0  | 39.6                | 32.3                | -7.3           |
| A,1  | 43.2                | 32.8                | -10.5          |
| A,2  | 45.7                | 33.7                | -12.0          |
| A,3  | 45.6                | 35.2                | -10.4          |
| B,-1   | 37.9                | 32.5                | -5.4           |
| B,0  | 39.2                | 32.4                | -6.9           |
| B,1  | 42.6                | 32.5                | -10.1          |
| B,2  | 45.8                | 33.2                | -12.6          |
| B,3  | 45.7                | 34.6                | -11.1          |
| C,-1   | 36.7                | 33.2                | -3.5           |
| C,0  | 37.1                | 33.0                | -4.1           |
| C,1  | 39.5                | 32.9                | -6.6           |
| C,2  | 44.8                | 33.4                | -11.4          |
| C,3  | 46.5                | 34.5                | -12.0          |
| D,-1   | 32.6                | 33.6                | 1.0            |
| D,0  | 33.3                | 33.2                | -0.1           |
| D,1  | 37.3                | 33.0                | -4.3           |
| D,2  | 43.0                | 33.2                | -9.8           |
| E,-1   | 31.4                | 33.6                | 2.2            |
| E,0  | 33.1                | 32.6                | -0.5           |
| E,1  | 36.2                | 32.3                | -3.9           |
| E,2  | 40.6                | 32.9                | -7.7           |
| F,1  | 36.5                | 32.2                | -4.3           |
| F,2  | 39.4                | 33.1                | -6.3           |
| G,1  | 42.5                | 33.4                | -9.1           |

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