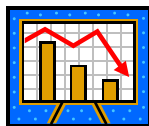




# The 2002 Annual Noise Report



## 2002 Annual Results

For the 2002 reporting period, Class II exceedances decreased substantially as compared to 2001. Class II exceedances dropped from ten in 2001, to five in 2002. Of these five, four were located in NEPS Area 2, and one was located in Area 3. In addition, there were eight Class I exceedances, also primarily located in Areas 2 and 3, as compared to 10 during the 2001 reporting period. The five Class II exceedances equal the lowest number previously recorded, in 1996.

The total area covered by the 65 Ldn contour has also decreased as compared to 2001, with reductions in noise exposure occurring in all quadrants.

Noise complaints for the year totaled 8,082, a 13% decrease from the 10,287 registered in 2001. The top 10 individual complainants accounted for 78% of this total.

Runway use for 2002 was overall very similar to 2001, although slight increases in the use of Runways 25 and 17R by departing aircraft were noted.

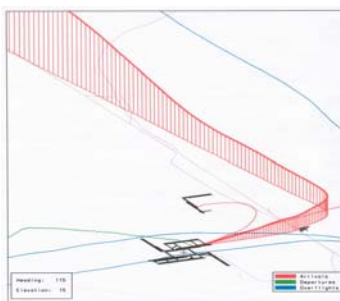
## DIA Airport Noise and Operations Monitoring System



The Denver International Airport – 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 page 3).

The DIA ANOMS system monitors noise levels at 28 permanent and 4 portable noise monitoring terminals. These terminals are located throughout the Denver metro area.

The system also records the movement of all aircraft in the vicinity of DIA 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 to controller radio transmissions.



ANOMS Output

## ARTSMAP



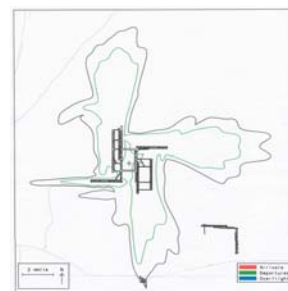
ARTSMAP is a specially designed noise modeling program that automatically creates noise contours. ARTSMAP is designed to create contours from actual radar flight tracks that DIA receives from the FAA ARTS system which is sent to our office via modem, eliminating the need for manual data manipulation. The ARTSMAP software is installed on a computer in the Noise Abatement Office. The program analyzes, views, reports, and stores the data. Currently, ARTSMAP is used at several major airports nationally. It allows the DIA Noise Abatement Office to perform noise data analysis, generate daily automated noise contours, receive detailed runway utilization and airline

fleet mix identification, and generate landing fee reports.

## Land Use/Zoning



Controlling the growth and types of development in the areas surrounding DIA 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 development are allowed to occur. The 65 Ldn (average decibel level with a 10 decibel penalty applied at operations at night) is a line



IGA Baseline Contour 60 Ldn (Black) 65 Ldn (Green)

inside which, under Federal Guidelines, no residential development should occur (see contour map above). This noise contour is used at DIA for land use and planning by the surrounding jurisdictions.

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**DIA Noise Hotline**



The purpose of the DIA Noise Complaint Hotline is to provide an opportunity for individuals to express their concerns regarding noise generated by aircraft operating at DIA. The noise complaint system has been designed to ask several questions relative to the concerns of citizens. Once this information has been correctly entered, it is then transcribed daily 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. We have created four methods for registering complaints. They include calling the Noise Hotline at (303) 342-2380, or toll free 1-800-417-2988, also complaints may be faxed to (303) 342-2366, and finally, complaints may be emailed to [Noise.Office@diadenver.net](mailto:Noise.Office@diadenver.net).

**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**

**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 particular Ldn level. These contour lines are nested in such a way that contours closer to the airport generally surround areas that experience a higher noise level 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.



**Questions or Comments?**

We have tried to make it easier for you to contact the Noise Abatement Office. If you have any questions or comments, please feel free to contact us by using any of the methods listed below.



Noise Abatement Office Computer Room

**Office Hours: M – F 8:00am to 5:00pm**

**Main Office Phone:** (303) 342-2380  
Press #2 to speak to a Noise Analyst during office hours.

**Fax:** (303) 342-2366

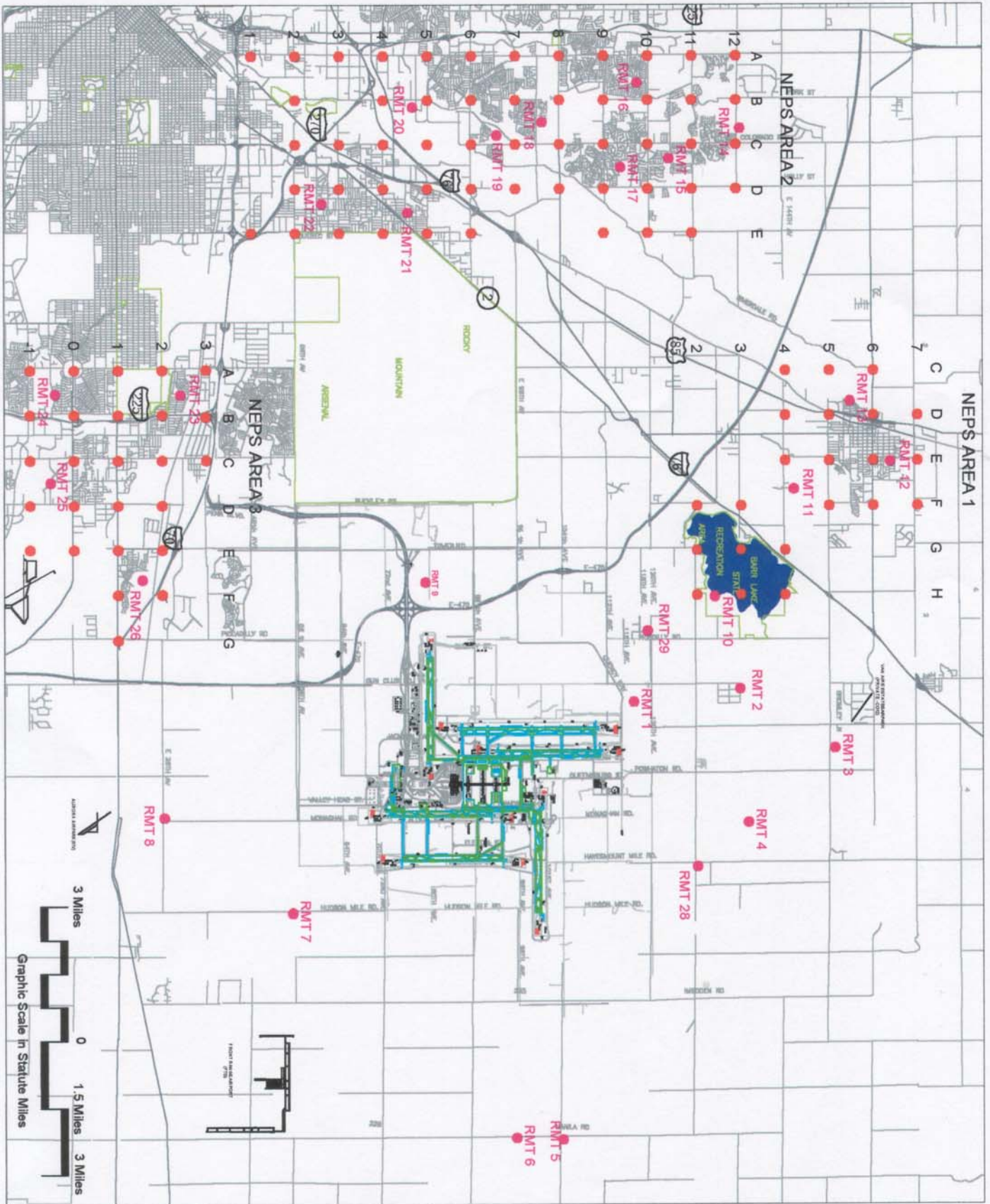
**Email:** [Noise.Office@diadenver.net](mailto:Noise.Office@diadenver.net)

**Mailing Address:**  
Noise Abatement Office  
Denver International Airport  
8500 Peña Boulevard  
Denver, CO 80249

**Noise Complaint Hotline:**  
(303) 342-2380  
Toll Free 1-800-417-2988



### Noise Exposure Performance Standards (NEPS) Grid Coordinates and Remote Monitoring Terminals (RMT) Locations

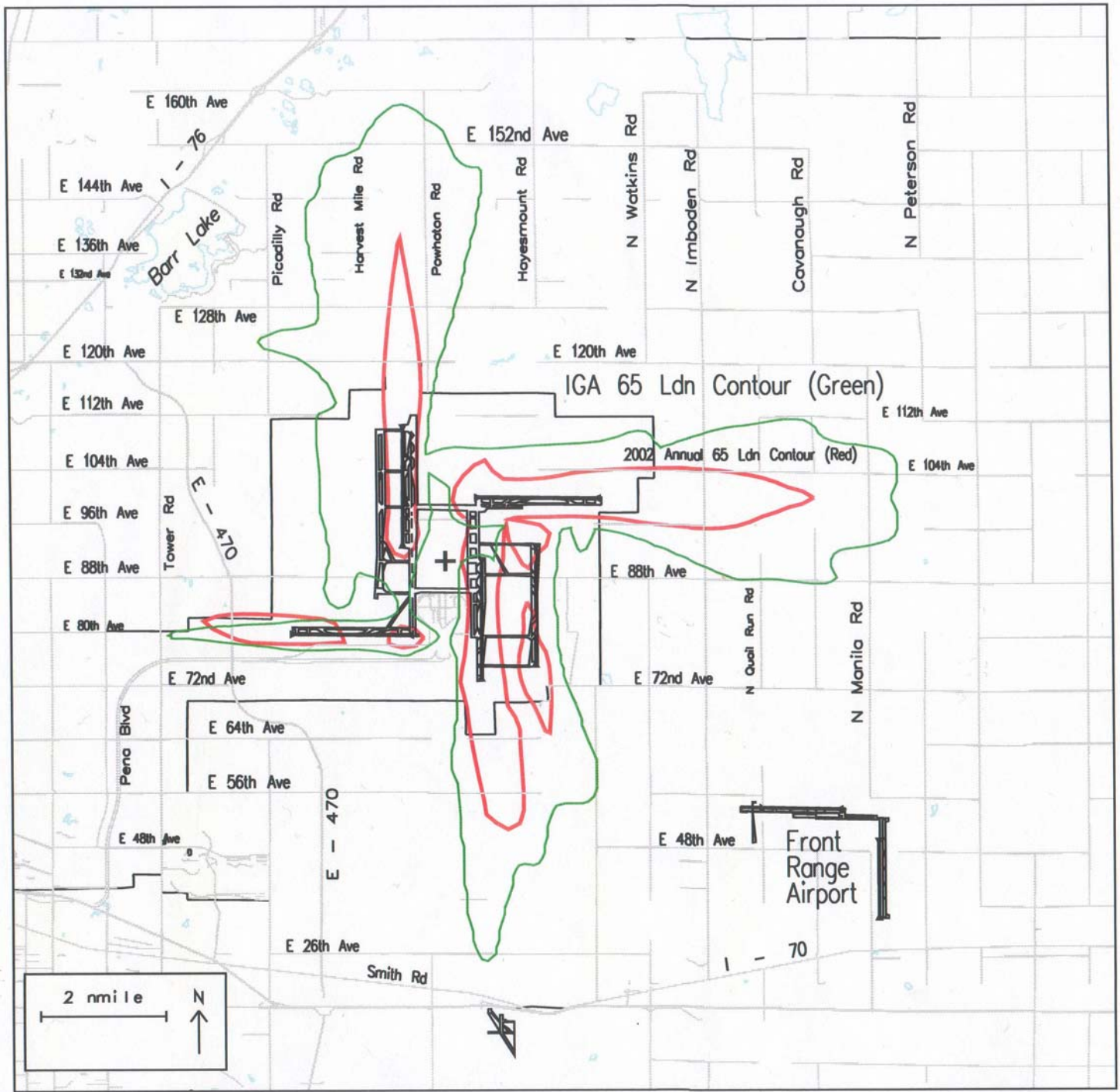


## **Annual 2002**

**January 1, 2002 – December 31, 2002**

**(Please Note: Does not include the impact of extraordinary weather to the NEPS Values)**

## 2002 Annual - 65 Ldn Contour



**2002 Annual - Denver/Adams County IGA NEPS Values**

Area 2			
2002 Annual			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,1	38.6	36.5	-2.2
A,2	37.6	37.2	-0.4
A,3	42.3	38.2	-4.1
A,4	45.3	39.1	-6.2
A,5	43.9	40.1	-3.8
A,6	37.5	40.3	2.8
A,7	37.7	40.5	2.8
A,8	36.5	39.5	3.0
A,9	36.3	37.0	0.7
A,10	37.6	35.9	-1.7
A,11	39.2	35.6	-3.6
A,12	41.2	35.1	-6.1
B,2	39.5	37.8	-1.7
B,4	42.5	39.6	-2.9
B,5	43.1	40.9	-2.2
B,6	39.0	40.9	1.9
B,7	39.0	41.2	2.2
B,8	38.0	39.6	1.6
B,9	38.3	37.5	-0.8
B,10	39.0	37.0	-2.0
B,11	40.4	36.7	-3.7
B,12	42.6	36.4	-6.2
C,2	41.0	38.6	-2.5
C,3	43.3	39.5	-3.8
C,4	43.5	40.2	-3.3
C,5	43.4	41.7	-1.7
C,6	43.3	41.8	-1.5
C,7	43.3	41.8	-1.5
C,8	42.6	39.8	-2.8
C,9	42.2	38.4	-3.8
C,10	41.6	38.4	-3.2
C,11	42.5	38.2	-4.3
C,12	44.3	37.7	-6.6
D,2	41.7	39.4	-2.3
D,3	46.2	40.3	-5.9
D,4	48.4	41.1	-7.3
D,5	48.2	42.7	-5.5
D,6	46.2	42.8	-3.4
D,7	44.2	42.5	-1.7
D,8	43.7	40.0	-3.7
D,9	43.1	40.0	-3.1
D,10	44.9	40.2	-4.7
D,11	44.5	39.6	-4.9
D,12	45.1	38.9	-6.2
E,1	42.4	39.1	-3.3
E,2	42.2	40.0	-2.2
E,3	46.7	41.3	-5.4
E,4	51.2	42.3	-8.9
E,5	51.0	44.0	-7.0
E,6	44.6	44.0	-0.6
E,9	43.1	41.9	-1.2
E,10	43.1	41.0	-2.1
E,11	46.1	39.8	-6.3

Area 1			
2002 Annual			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
C,4	44.2	37.6	-6.6
C,5	36.7	35.4	-1.3
C,6	36.0	34.0	-2.0
D,4	41.1	36.5	-4.6
D,5	34.2	34.8	0.6
D,6	36.0	34.0	-2.0
D,7	41.4	34.9	-6.5
E,4	38.3	37.3	-1.0
E,5	34.8	36.8	2.0
E,6	36.7	35.4	-1.3
E,7	41.4	35.1	-6.3
F,2	51.7	42.4	-9.3
F,3	43.7	40.1	-3.6
F,5	37.3	37.0	-0.3
F,6	38.5	36.8	-1.7
F,7	42.1	36.8	-5.3
G,2	51.2	43.8	-7.4
G,3	42.1	40.7	-1.5
G,4	40.2	38.2	-2.0
H,2	50.1	45.4	-4.7
H,3	46.0	41.4	-4.6
H,4	46.1	38.4	-7.7

Area 3			
2002 Annual			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,-1	38.9	33.6	-5.3
A,0	39.6	33.8	-5.9
A,1	43.2	34.5	-8.7
A,2	45.7	35.8	-9.9
A,3	45.6	36.9	-8.7
B,-1	37.9	33.1	-4.8
B,0	39.2	33.2	-6.0
B,1	42.6	34.0	-8.6
B,2	45.8	35.1	-10.7
B,3	45.7	36.5	-9.2
C,-1	36.7	33.7	-3.1
C,0	37.1	33.7	-3.4
C,1	39.5	34.1	-5.4
C,2	44.8	35.1	-9.7
C,3	46.5	36.5	-10.0
D,-1	32.6	34.6	2.0
D,0	33.3	34.5	1.2
D,1	37.3	34.8	-2.5
D,2	43.0	35.6	-7.4
E,-1	31.4	34.9	3.5
E,0	33.1	34.8	1.7
E,1	36.2	34.9	-1.3
E,2	40.6	35.6	-5.0
F,1	36.5	35.4	-1.1
F,2	39.4	36.3	-3.1
G,1	42.5	35.6	-6.9

## 2002 Annual - Complaint Statistics

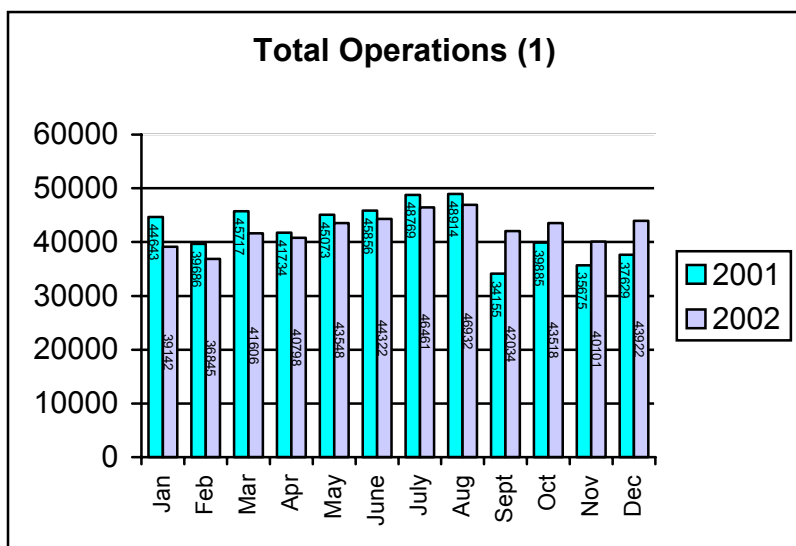
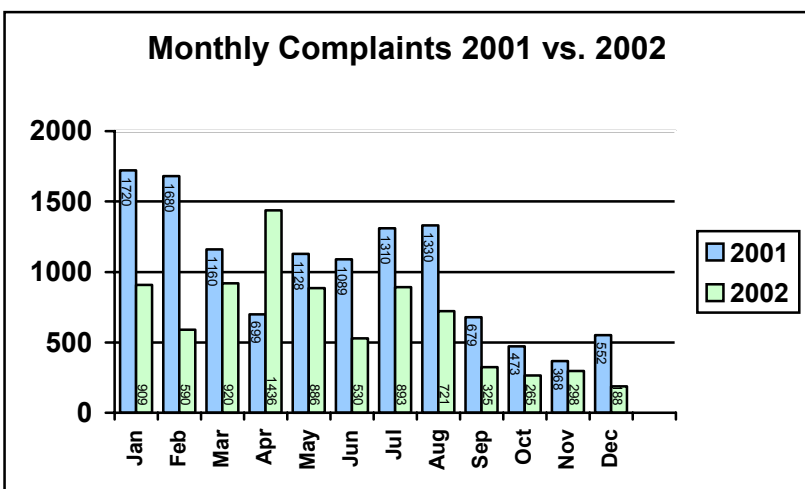
Number of Complaints	2001	2002
Total number of noise complaints	10,287	8,082
Total number of hotline callers/households	457 / 411	215 / 215
Max # of complaints by an individual/household	2,906/2,906	2,200/2,200

Breakdown by time of day	2001	%	2002	%
Day Hours (7:00 am – 9:59 pm)	8,649	84.0	6,640	82.0
Night Hours (10:00 pm – 6:59 am)	1,638	16.0	1,442	18.0
<b>All Hours</b>	<b>10,287</b>	<b>100.00</b>	<b>8,082</b>	<b>100.00</b>

Breakdown By Month							
1q02		2q02		3q02		4q02	
January	909	April	1,529	July	893	October	265
February	617	May	886	August	721	November	298
March	920	June	531	September	325	December	188
<b>Total</b>	<b>2,446</b>	<b>2,946</b>	<b>1,939</b>	<b>751</b>			

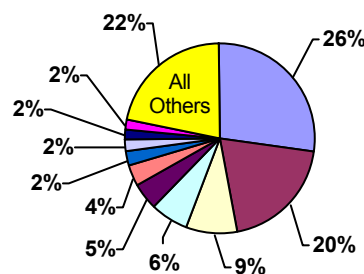
City	City Total	Households	Max #*
Blank	0	0	0
Arvada	5	4	2
Aurora	1170	33	694
Bennett	16	2	13
Boulder	184	9	128
Brighton	287	18	93
Broomfield	0	0	0
Byers	1	1	1
Castle Rock	23	2	22
Commerce City	38	9	17
Conifer	0	0	0
Denver	72	29	18
Elizabeth	211	6	98
Englewood	2	2	1
Estes Park	0	0	0
Evergreen	188	4	173
Federal Heights	0	0	0
Fort Collins	16	1	16
Fort Lupton	1	1	1
Franktown	0	0	0
Golden	16	7	5
Henderson	0	0	0
Highlands Ranch	3	3	1
Hudson	11	2	6
Keenesburg	2	1	2
Kiowa	0	0	0
Lafayette	8	1	8
Lakewood	425	3	381
Larkspur	0	0	0
Littleton	3	2	2
Lone Tree	0	0	0
Longmont	5	1	5
Louisville	10	1	10
Louviers	1	1	1
Lyons	5	1	5
Morrison	1	1	1
Nederland	1809	12	1602
Northglenn	9	6	2
Parker	603	18	504
Pine	0	0	0
Sedalia	0	0	0
Superior	1	1	1
Thornton	259	19	184
Watkins	2215	8	2200
Westminster	478	5	308
Wheatridge	4	1	4
Windsor	0	0	0
<b>Total</b>	<b>8082</b>	<b>215</b>	<b>6509</b>

\* This column further breaks down the household category by depicting the highest number of complaints from an individual household.

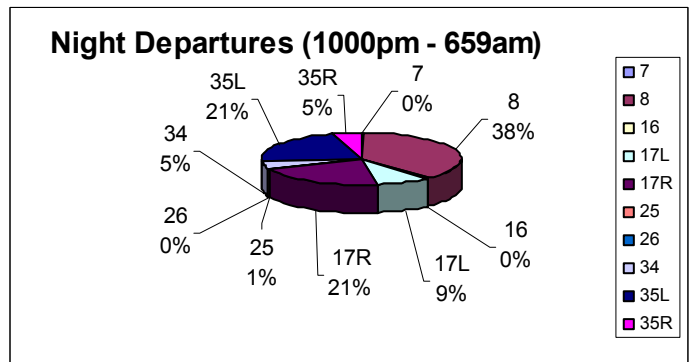
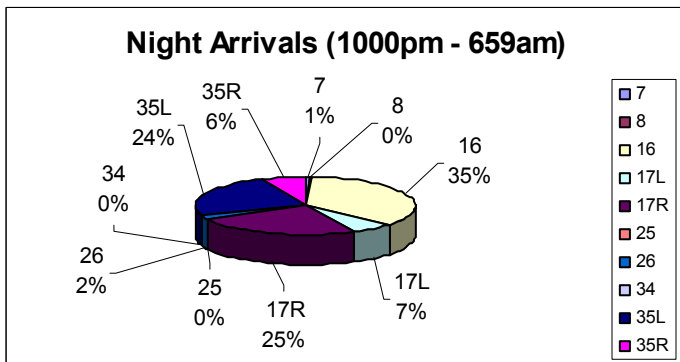
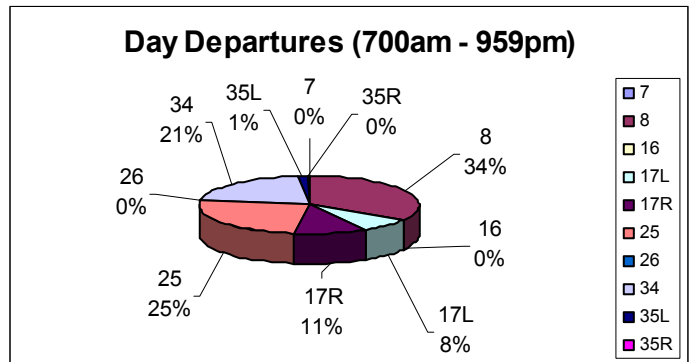
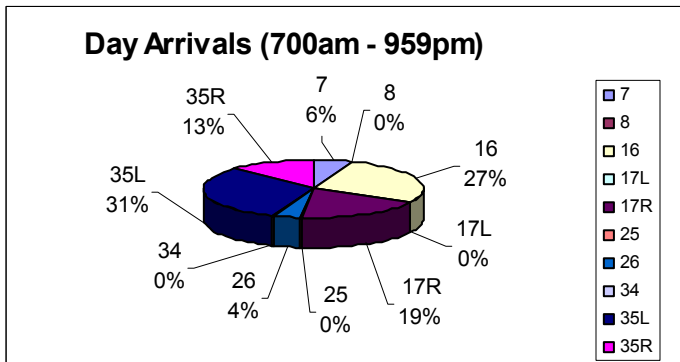
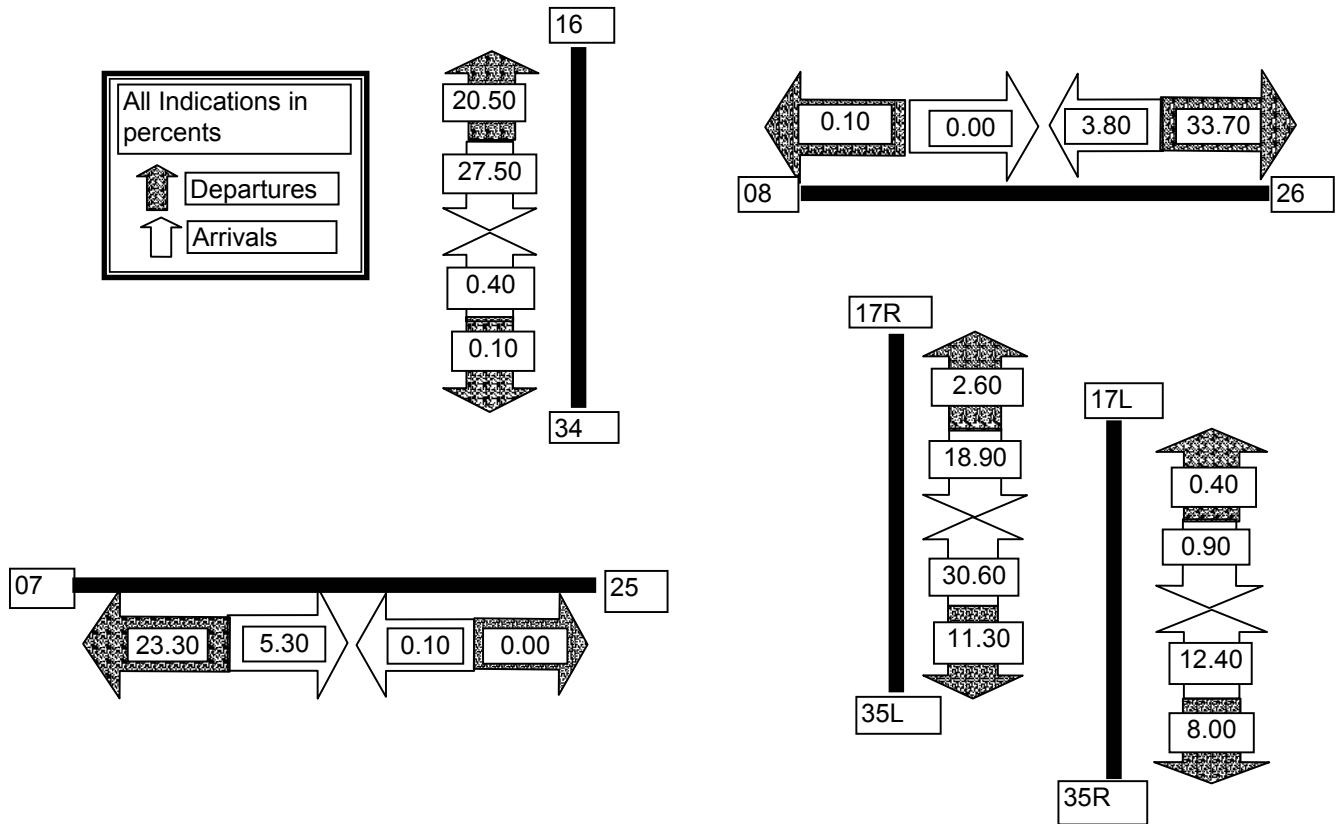


(1) Total Operations includes Air Carrier, General Aviation, and Air Taxi. Source: Federal Aviation Administration

### Top 10 Complainants Vs. All Others



## 2002 Annual - Runway Utilization

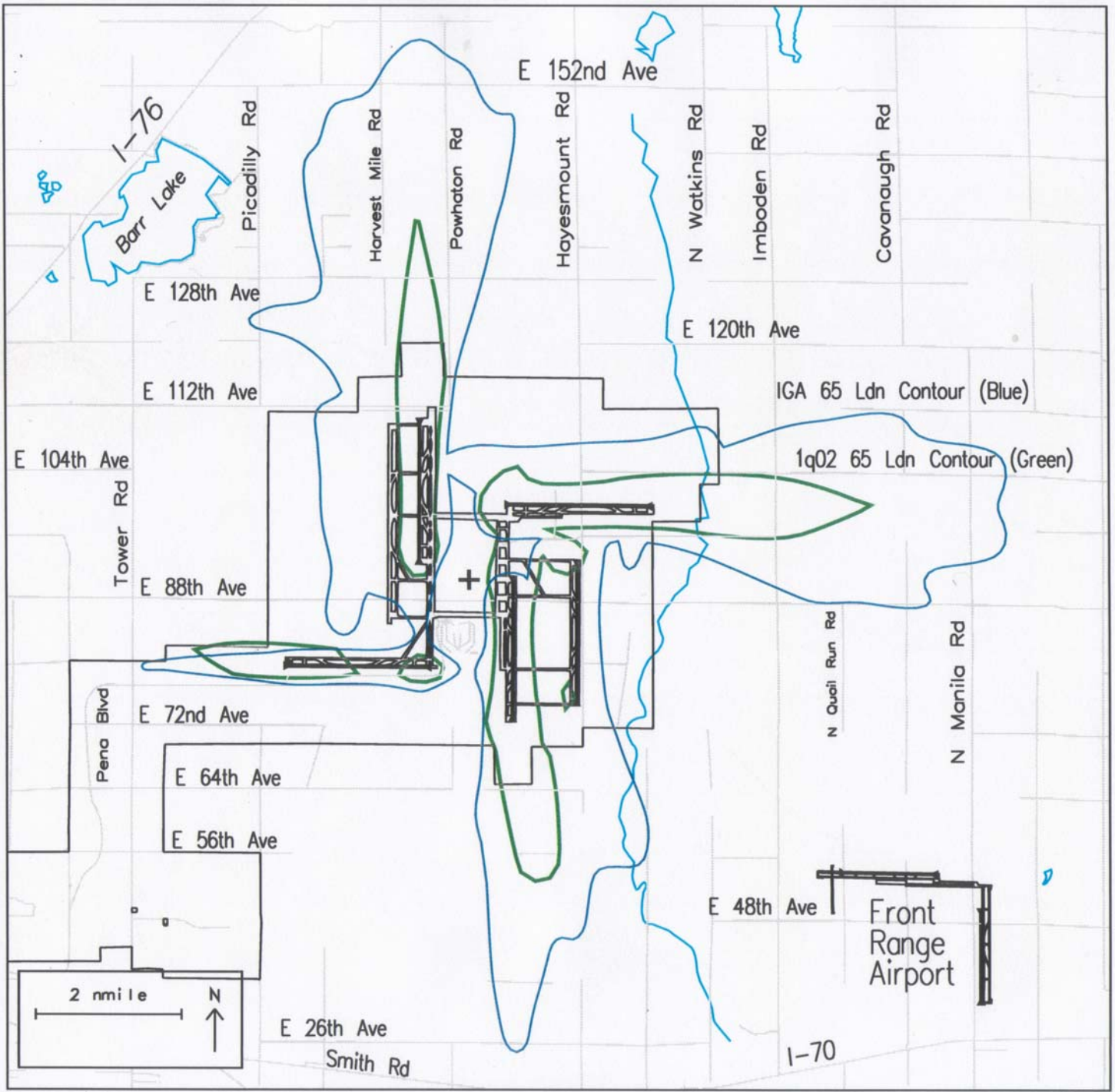




## **First Quarter 2002**

**January 1, 2002 – March 31, 2002**

First Quarter 2002 - 65 Ldn Contour



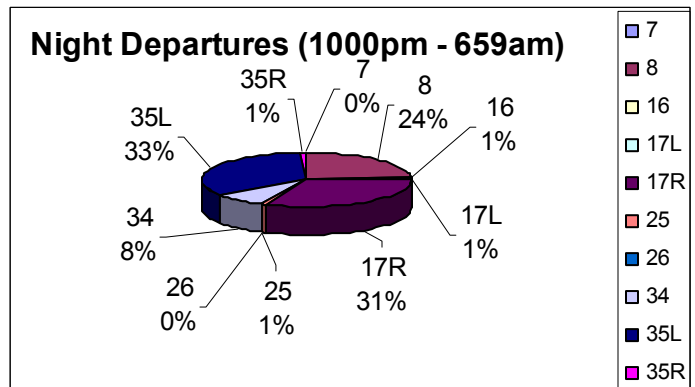
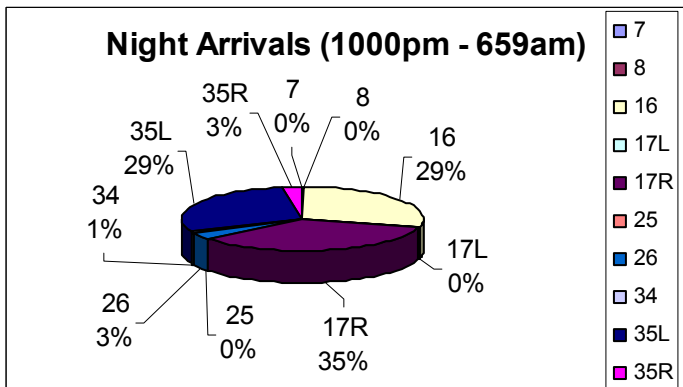
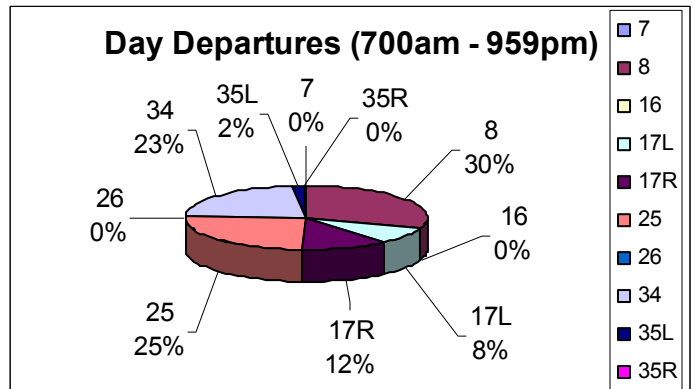
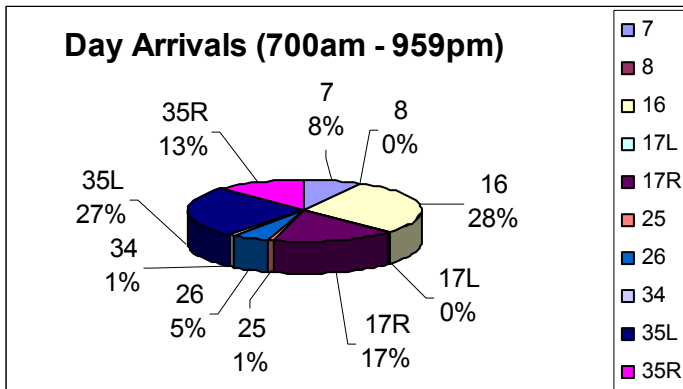
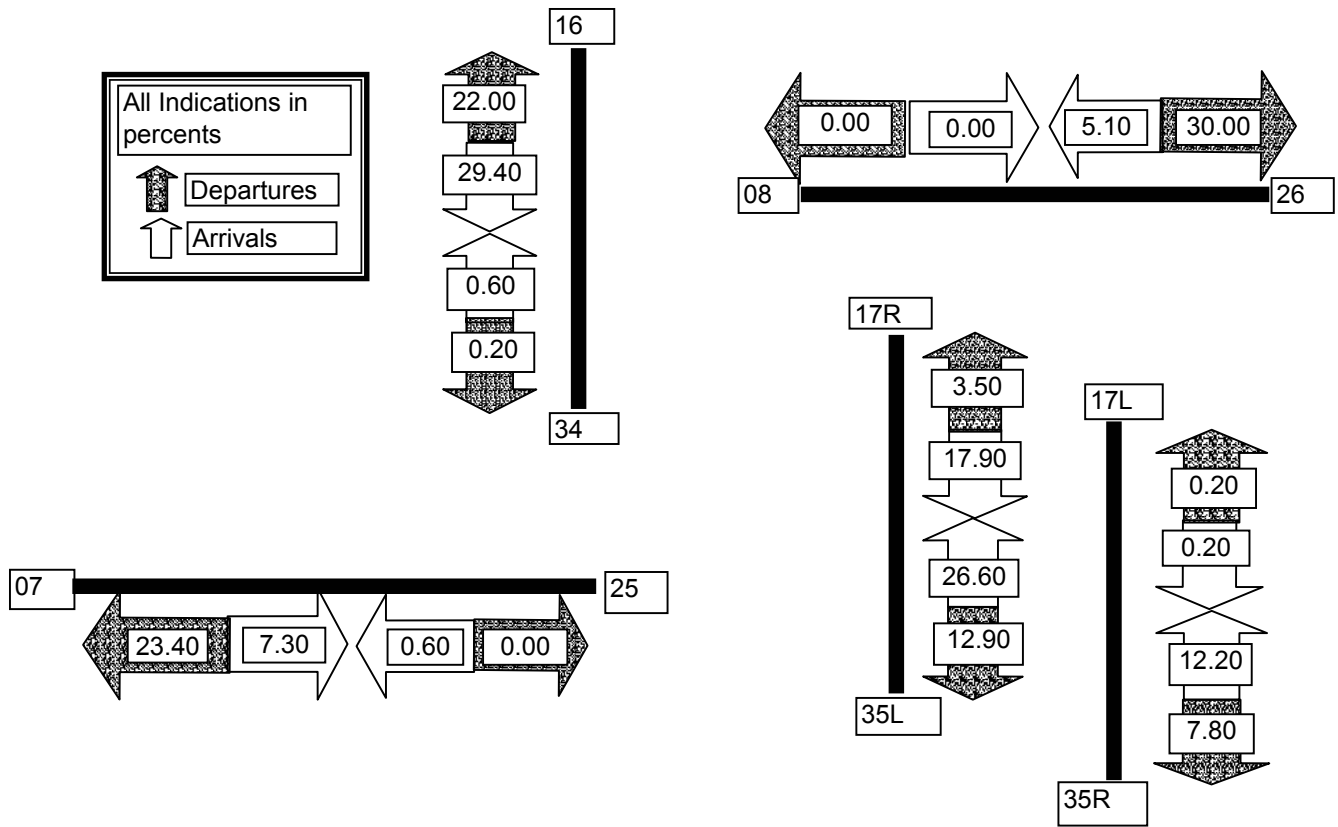
**First Quarter 2002 – Denver/Adams County IGA NEPS Values**

Area 2			
1st Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,1	38.6	36.6	-2.0
A,2	37.6	37.4	-0.2
A,3	42.3	38.3	-4.1
A,4	45.3	39.0	-6.3
A,5	43.9	40.1	-3.8
A,6	37.5	40.2	2.7
A,7	37.7	40.3	2.6
A,8	36.5	39.3	2.8
A,9	36.3	37.0	0.7
A,10	37.6	35.7	-1.9
A,11	39.2	35.1	-4.1
A,12	41.2	34.5	-6.7
B,2	39.5	37.9	-1.6
B,4	42.5	39.6	-2.9
B,5	43.1	40.9	-2.3
B,6	39.0	41.0	2.0
B,7	39.0	41.0	2.0
B,8	38.0	39.6	1.6
B,9	38.3	37.4	-0.9
B,10	39.0	36.5	-2.5
B,11	40.4	36.2	-4.2
B,12	42.6	35.6	-7.0
C,2	41.0	38.7	-2.4
C,3	43.3	39.6	-3.7
C,4	43.5	40.3	-3.2
C,5	43.4	41.7	-1.7
C,6	43.3	41.8	-1.6
C,7	43.3	41.7	-1.6
C,8	42.6	39.8	-2.8
C,9	42.2	38.1	-4.1
C,10	41.6	37.8	-3.8
C,11	42.5	37.5	-5.0
C,12	44.3	36.8	-7.5
D,2	41.7	39.3	-2.4
D,3	46.2	40.4	-5.8
D,4	48.4	41.2	-7.2
D,5	48.2	42.8	-5.4
D,6	46.2	42.7	-3.5
D,7	44.2	42.3	-1.9
D,8	43.7	40.0	-3.7
D,9	43.1	39.3	-3.9
D,10	44.9	39.2	-5.7
D,11	44.5	38.6	-5.9
D,12	45.1	37.8	-7.3
E,1	42.4	39.5	-2.9
E,2	42.2	40.0	-2.2
E,3	46.7	41.2	-5.6
E,4	51.2	42.3	-8.9
E,5	51.0	44.1	-6.9
E,6	44.6	43.8	-0.8
E,9	43.1	40.7	-2.5
E,10	43.1	40.0	-3.1
E,11	46.1	39.1	-7.1

Area 1			
1st Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
C,4	44.2	37.5	-6.7
C,5	36.7	35.1	-1.6
C,6	36.0	34.0	-2.0
D,4	41.1	36.1	-5.0
D,5	34.2	34.4	0.1
D,6	36.0	34.0	-2.0
D,7	41.4	34.9	-6.5
E,4	38.3	36.8	-1.5
E,5	34.8	36.6	1.8
E,6	36.7	35.3	-1.4
E,7	41.4	34.9	-6.6
F,2	51.7	42.0	-9.7
F,3	43.7	39.7	-4.0
F,5	37.3	36.5	-0.8
F,6	38.5	36.5	-2.0
F,7	42.1	36.5	-5.6
G,2	51.2	43.4	-7.8
G,3	42.1	40.4	-1.8
G,4	40.2	37.7	-2.5
H,2	50.1	44.9	-5.2
H,3	46.0	41.8	-4.2
H,4	46.1	38.3	-7.8

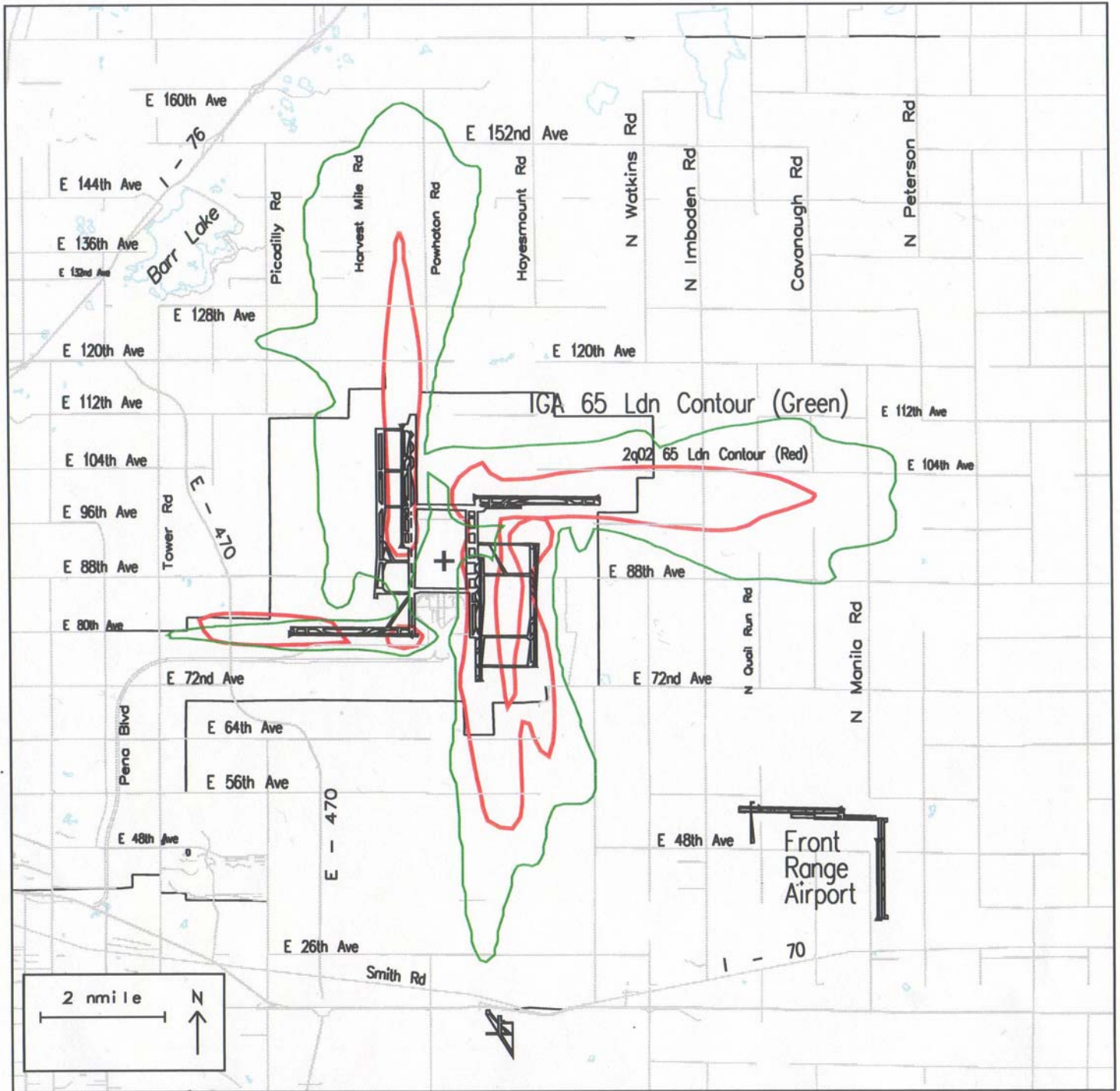
Area 3			
1st Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,-1	38.9	34.0	-4.9
A,0	39.6	34.2	-5.4
A,1	43.2	35.0	-8.2
A,2	45.7	36.5	-9.2
A,3	45.6	37.6	-8.1
B,-1	37.9	33.1	-4.8
B,0	39.2	33.6	-5.6
B,1	42.6	34.4	-8.2
B,2	45.8	35.9	-9.9
B,3	45.7	37.2	-8.5
C,-1	36.7	33.5	-3.2
C,0	37.1	33.7	-3.5
C,1	39.5	34.4	-5.1
C,2	44.8	35.8	-9.0
C,3	46.5	37.3	-9.2
D,-1	32.6	34.1	1.5
D,0	33.3	34.1	0.8
D,1	37.3	34.8	-2.6
D,2	43.0	35.9	-7.1
E,-1	31.4	34.7	3.3
E,0	33.1	34.4	1.3
E,1	36.2	35.0	-1.2
E,2	40.6	36.3	-4.3
F,1	36.5	35.9	-0.6
F,2	39.4	37.0	-2.4
G,1	42.5	36.9	-5.6

First Quarter 2002 – Runway Utilization



**Second Quarter, 2002**  
**April 1, 2002 – June 30, 2002**

Second Quarter 2002 – 65 Ldn Contour



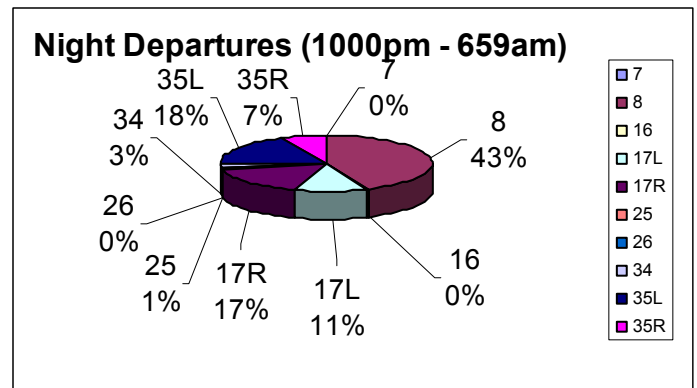
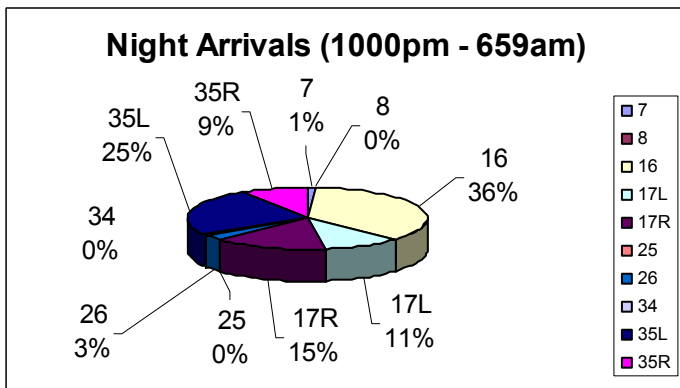
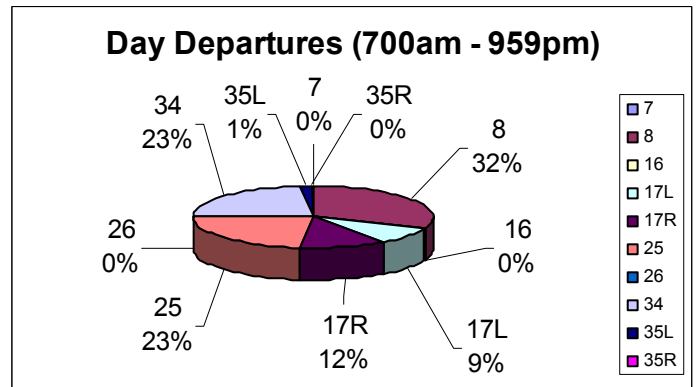
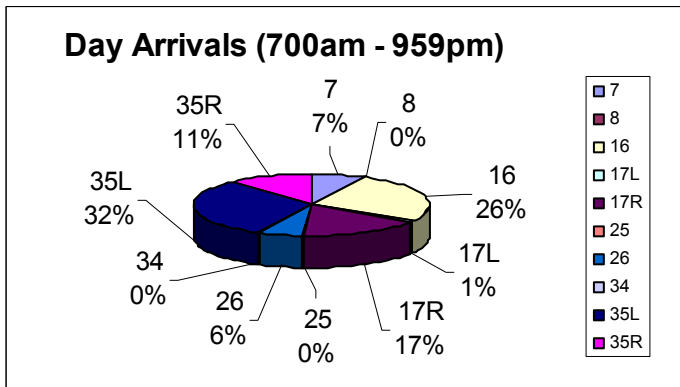
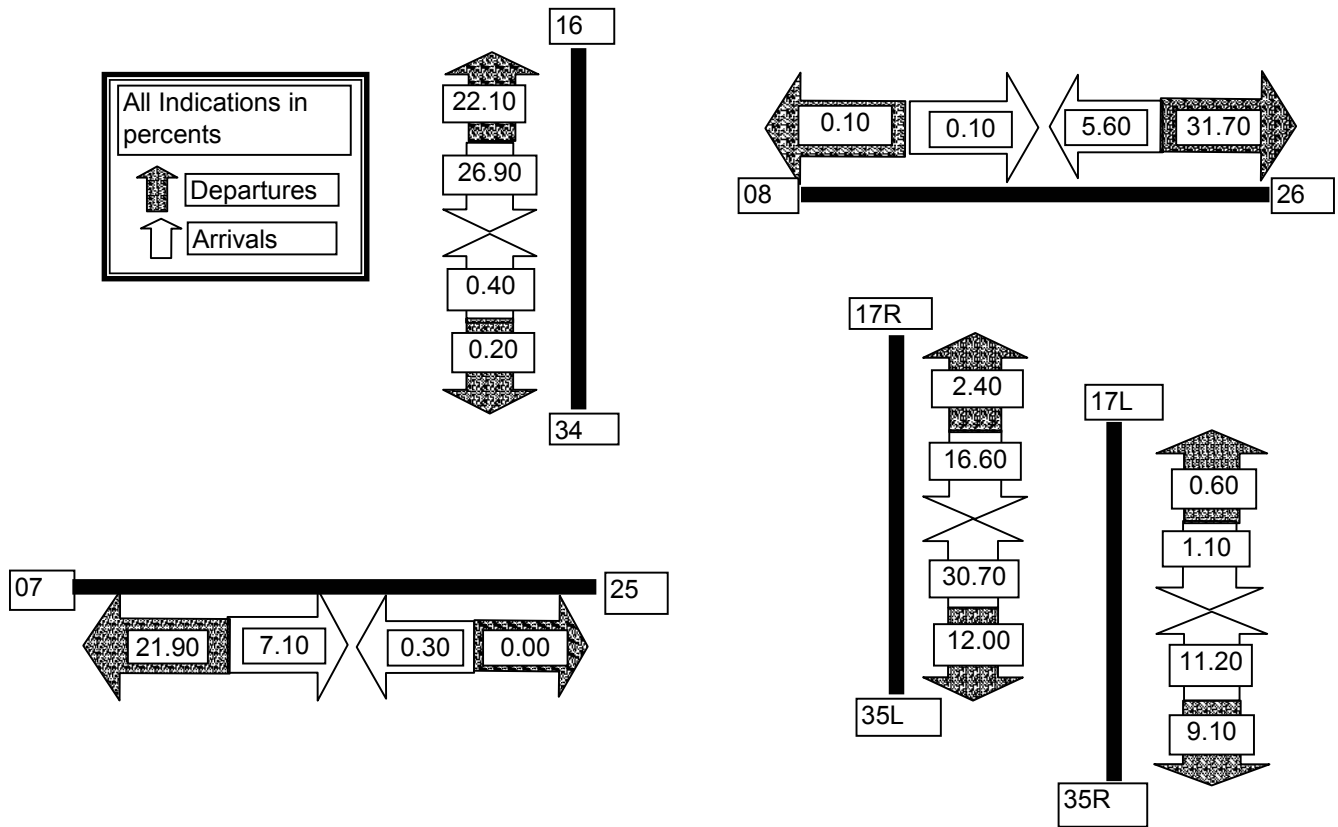
**Second Quarter 2002 – Denver/Adams County IGA NEPS Values**

Area 2			
2nd Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,1	38.6	36.5	-2.1
A,2	37.6	37.1	-0.5
A,3	42.3	38.2	-4.1
A,4	45.3	39.4	-5.9
A,5	43.9	40.5	-3.4
A,6	37.5	40.8	3.3
A,7	37.7	40.6	2.9
A,8	36.5	39.6	3.1
A,9	36.3	37.1	0.8
A,10	37.6	36.1	-1.5
A,11	39.2	36.1	-3.2
A,12	41.2	35.5	-5.7
B,2	39.5	38.1	-1.4
B,4	42.5	39.8	-2.7
B,5	43.1	41.2	-1.9
B,6	39.0	41.2	2.2
B,7	39.0	41.3	2.3
B,8	38.0	39.7	1.7
B,9	38.3	37.5	-0.8
B,10	39.0	37.3	-1.7
B,11	40.4	37.1	-3.3
B,12	42.6	36.7	-5.9
C,2	41.0	39.2	-1.9
C,3	43.3	39.9	-3.5
C,4	43.5	40.4	-3.1
C,5	43.4	42.2	-1.2
C,6	43.3	42.0	-1.3
C,7	43.3	41.9	-1.4
C,8	42.6	39.8	-2.8
C,9	42.2	38.3	-3.9
C,10	41.6	38.8	-2.8
C,11	42.5	38.4	-4.1
C,12	44.3	37.8	-6.5
D,2	41.7	39.8	-1.9
D,3	46.2	41.0	-5.2
D,4	48.4	41.3	-7.1
D,5	48.2	43.3	-4.9
D,6	46.2	43.0	-3.2
D,7	44.2	42.6	-1.6
D,8	43.7	40.0	-3.7
D,9	43.1	40.0	-3.1
D,10	44.9	40.5	-4.4
D,11	44.5	39.8	-4.7
D,12	45.1	39.1	-6.0
E,1	42.4	39.6	-2.8
E,2	42.2	40.5	-1.7
E,3	46.7	42.0	-4.7
E,4	51.2	42.7	-8.6
E,5	51.0	44.5	-6.5
E,6	44.6	44.2	-0.4
E,9	43.1	42.3	-0.8
E,10	43.1	41.3	-1.8
E,11	46.1	40.0	-6.1

Area 1			
2nd Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
C,4	44.2	37.8	-6.4
C,5	36.7	35.7	-1.0
C,6	36.0	34.4	-1.6
D,4	41.1	36.7	-4.4
D,5	34.2	35.4	1.2
D,6	36.0	34.6	-1.4
D,7	41.4	35.6	-5.8
E,4	38.3	37.5	-0.8
E,5	34.8	37.4	2.6
E,6	36.7	36.0	-0.7
E,7	41.4	35.9	-5.5
F,2	51.7	42.8	-8.9
F,3	43.7	40.4	-3.3
F,5	37.3	37.7	0.4
F,6	38.5	37.5	-1.1
F,7	42.1	37.4	-4.7
G,2	51.2	44.3	-6.9
G,3	42.1	41.0	-1.2
G,4	40.2	38.5	-1.7
H,2	50.1	45.4	-4.7
H,3	46.0	41.2	-4.8
H,4	46.1	38.8	-7.3

Area 3			
2nd Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,-1	38.9	34.4	-4.5
A,0	39.6	34.6	-5.0
A,1	43.2	34.9	-8.3
A,2	45.7	36.0	-9.8
A,3	45.6	37.0	-8.6
B,-1	37.9	33.9	-4.0
B,0	39.2	34.0	-5.2
B,1	42.6	34.5	-8.1
B,2	45.8	35.4	-10.4
B,3	45.7	36.5	-9.2
C,-1	36.7	34.3	-2.4
C,0	37.1	34.4	-2.7
C,1	39.5	34.5	-5.0
C,2	44.8	35.1	-9.7
C,3	46.5	36.2	-10.3
D,-1	32.6	34.9	2.3
D,0	33.3	35.1	1.8
D,1	37.3	35.4	-1.9
D,2	43.0	36.0	-7.1
E,-1	31.4	35.3	3.9
E,0	33.1	35.1	2.0
E,1	36.2	35.1	-1.1
E,2	40.6	35.6	-5.0
F,1	36.5	35.4	-1.1
F,2	39.4	36.3	-3.1
G,1	42.5	35.6	-6.9

Second Quarter 2002 – Runway Utilization

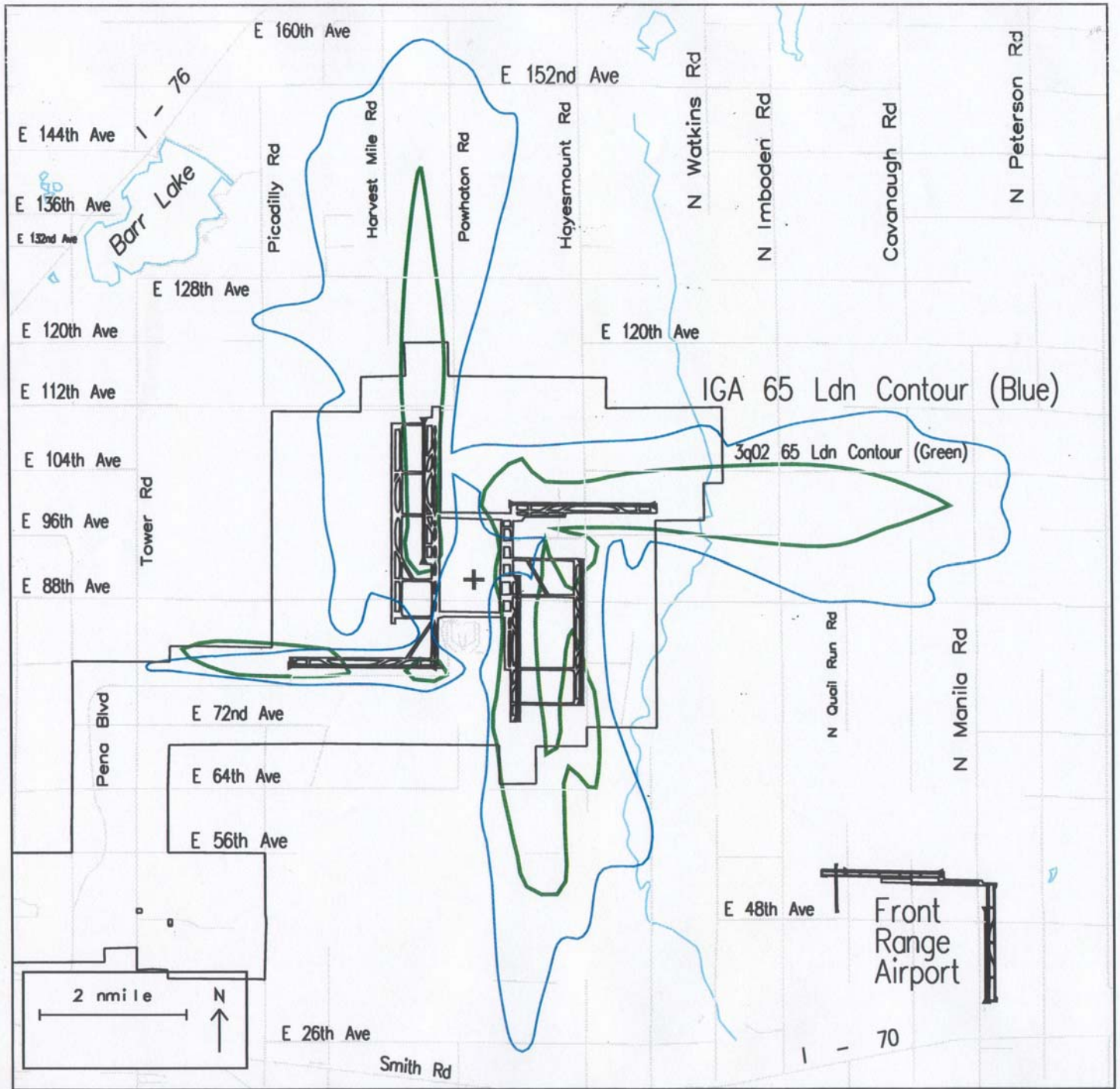




## **Third Quarter, 2002**

**July 1, 2002 – September 30, 2002**

Third Quarter 2002 – 65 Ldn Contour



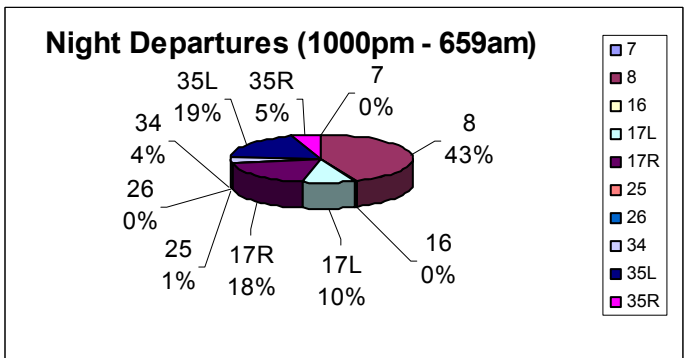
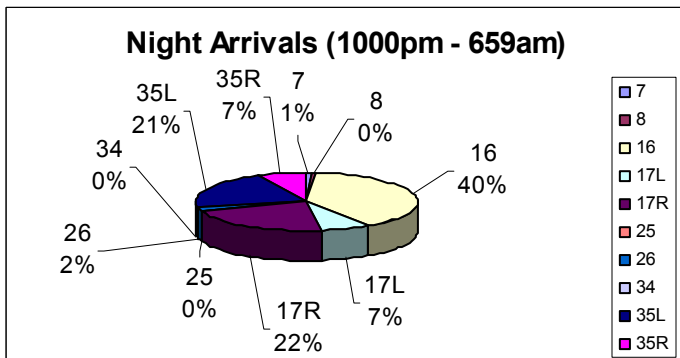
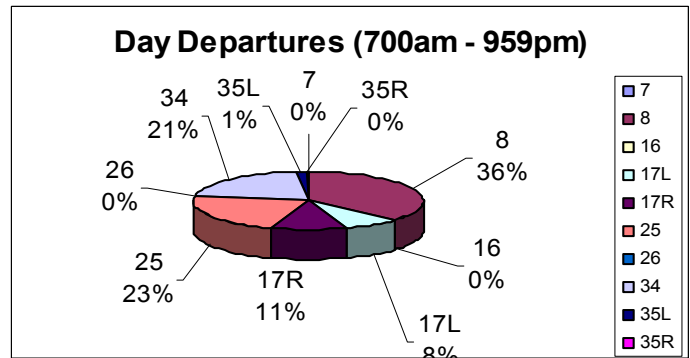
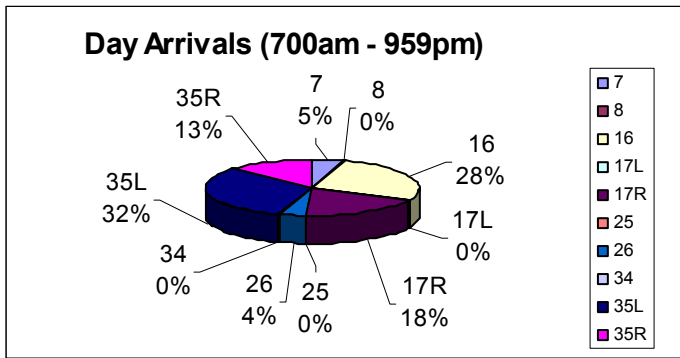
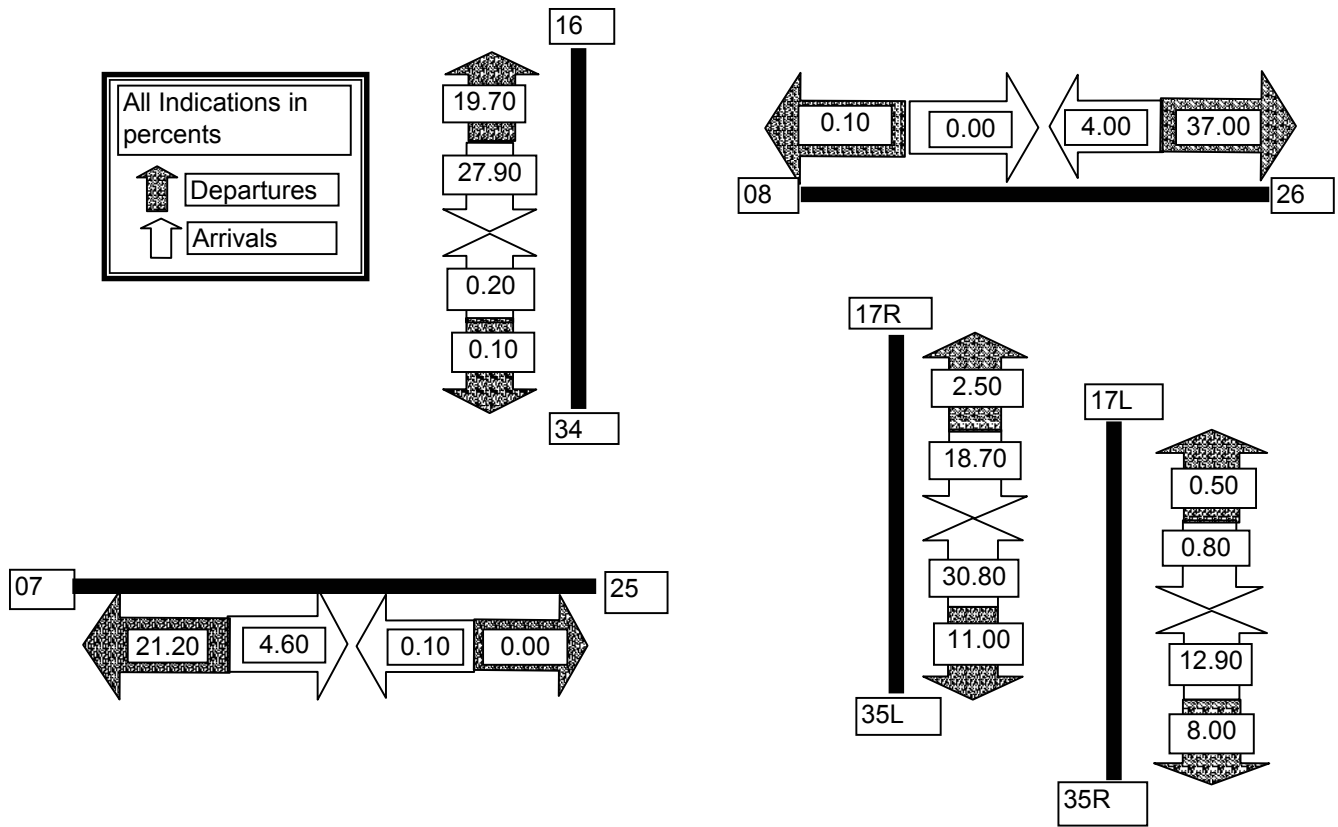
**Third Quarter 2002 – Denver/Adams County IGA NEPS Values**

Area 2			
3rd Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,1	38.6	36.4	-2.2
A,2	37.6	37.4	-0.2
A,3	42.3	38.3	-4.0
A,4	45.3	39.2	-6.1
A,5	43.9	40.3	-3.6
A,6	37.5	40.6	3.1
A,7	37.7	40.7	3.0
A,8	36.5	39.7	3.2
A,9	36.3	37.2	0.9
A,10	37.6	36.2	-1.4
A,11	39.2	36.5	-2.8
A,12	41.2	36.1	-5.1
B,2	39.5	37.8	-1.7
B,4	42.5	39.7	-2.8
B,5	43.1	41.0	-2.1
B,6	39.0	41.3	2.3
B,7	39.0	41.4	2.4
B,8	38.0	39.7	1.7
B,9	38.3	37.8	-0.5
B,10	39.0	37.6	-1.4
B,11	40.4	37.5	-2.9
B,12	42.6	37.1	-5.5
C,2	41.0	38.4	-2.6
C,3	43.3	39.6	-3.7
C,4	43.5	40.5	-3.0
C,5	43.4	41.8	-1.6
C,6	43.3	42.2	-1.1
C,7	43.3	42.1	-1.2
C,8	42.6	39.9	-2.7
C,9	42.2	39.0	-3.2
C,10	41.6	39.3	-2.3
C,11	42.5	39.1	-3.4
C,12	44.3	38.6	-5.7
D,2	41.7	39.6	-2.1
D,3	46.2	40.5	-5.7
D,4	48.4	41.5	-7.0
D,5	48.2	42.8	-5.4
D,6	46.2	43.3	-2.9
D,7	44.2	42.9	-1.3
D,8	43.7	40.4	-3.3
D,9	43.1	41.0	-2.1
D,10	44.9	41.2	-3.8
D,11	44.5	40.6	-3.9
D,12	45.1	40.0	-5.2
E,1	42.4	39.3	-3.1
E,2	42.2	40.3	-1.9
E,3	46.7	41.8	-4.9
E,4	51.2	42.6	-8.7
E,5	51.0	44.1	-6.9
E,6	44.6	44.6	-0.1
E,9	43.1	42.9	-0.2
E,10	43.1	41.9	-1.3
E,11	46.1	40.7	-5.5

Area 1			
3rd Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
C,4	44.2	38.3	-5.9
C,5	36.7	35.7	-1.0
C,6	36.0	33.9	-2.1
D,4	41.1	37.5	-3.7
D,5	34.2	35.1	0.9
D,6	36.0	33.9	-2.1
D,7	41.4	34.8	-6.6
E,4	38.3	38.2	-0.1
E,5	34.8	37.3	2.5
E,6	36.7	35.5	-1.2
E,7	41.4	35.2	-6.2
F,2	51.7	43.5	-8.2
F,3	43.7	41.1	-2.6
F,5	37.3	37.4	0.1
F,6	38.5	36.8	-1.7
F,7	42.1	36.9	-5.2
G,2	51.2	45.0	-6.2
G,3	42.1	42.2	0.1
G,4	40.2	39.4	-0.8
H,2	50.1	47.2	-2.9
H,3	46.0	43.4	-2.6
H,4	46.1	39.2	-6.9

Area 3			
3rd Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,-1	38.9	33.1	-5.8
A,0	39.6	33.1	-6.5
A,1	43.2	34.0	-9.3
A,2	45.7	35.0	-10.7
A,3	45.6	36.0	-9.6
B,-1	37.9	32.7	-5.2
B,0	39.2	32.8	-6.4
B,1	42.6	33.3	-9.3
B,2	45.8	34.1	-11.7
B,3	45.7	35.4	-10.3
C,-1	36.7	33.5	-3.2
C,0	37.1	33.5	-3.6
C,1	39.5	33.8	-5.7
C,2	44.8	34.5	-10.3
C,3	46.5	35.5	-11.0
D,-1	32.6	34.9	2.3
D,0	33.3	34.5	1.2
D,1	37.3	34.7	-2.7
D,2	43.0	35.0	-8.0
E,-1	31.4	35.2	3.8
E,0	33.1	35.4	2.3
E,1	36.2	34.9	-1.3
E,2	40.6	35.3	-5.3
F,1	36.5	35.6	-0.9
F,2	39.4	35.9	-3.5
G,1	42.5	34.8	-7.8

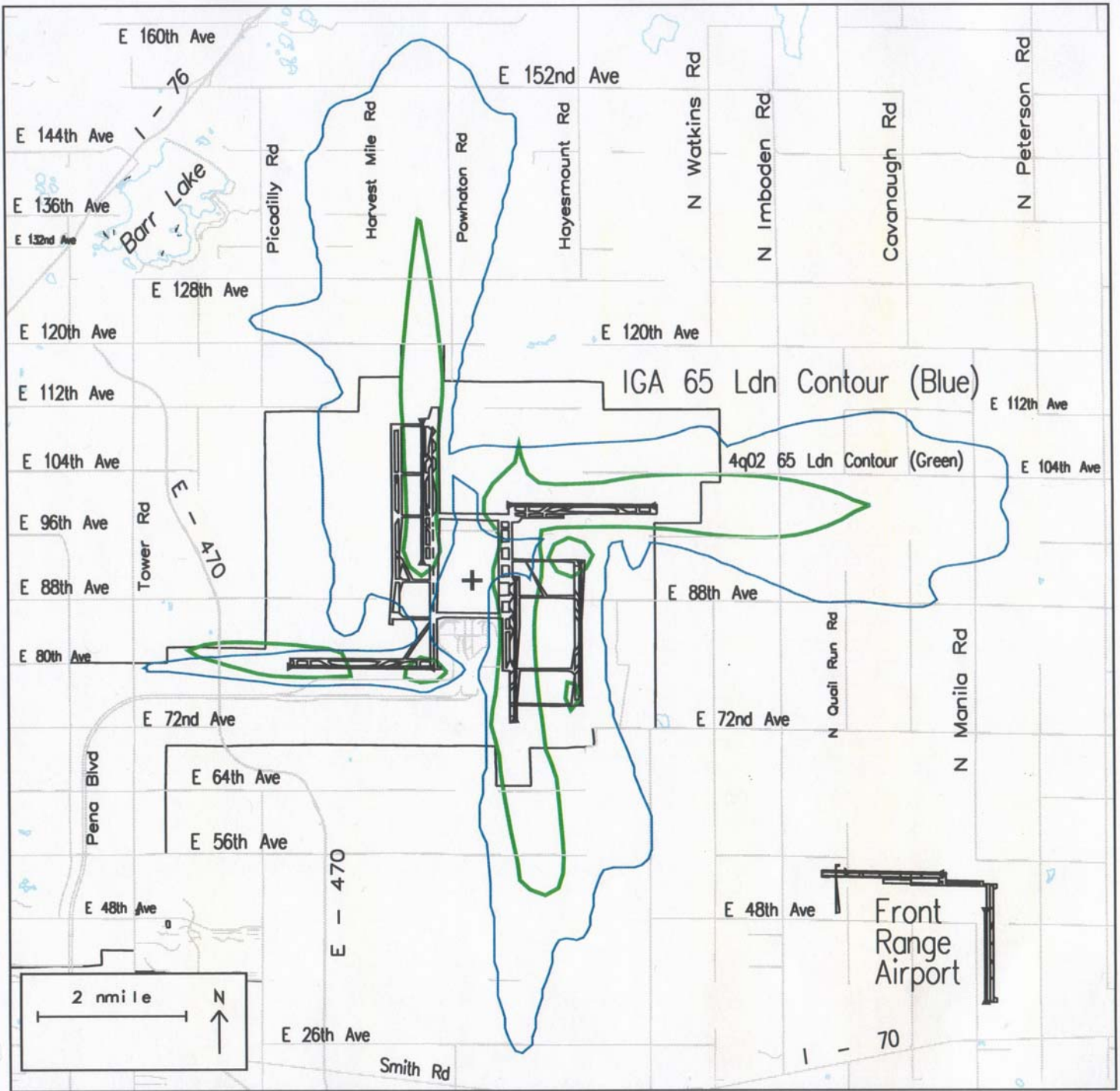
Third Quarter 2002 – Runway Utilization



## **Fourth Quarter, 2002**

**October 1, 2002 – December 31, 2002**

Fourth Quarter 2002 - 65 Ldn Contour



**Fourth Quarter 2002 - Denver/Adams County IGA NEPS Values**

Area 2			
4th Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,1	38.6	36.0	-2.6
A,2	37.6	36.9	-0.7
A,3	42.3	37.9	-4.4
A,4	45.3	38.7	-6.6
A,5	43.9	39.7	-4.2
A,6	37.5	39.9	2.4
A,7	37.7	40.2	2.5
A,8	36.5	39.3	2.8
A,9	36.3	36.8	0.5
A,10	37.6	35.4	-2.2
A,11	39.2	34.7	-4.5
A,12	41.2	34.4	-6.8
B,2	39.5	37.3	-2.2
B,4	42.5	39.2	-3.3
B,5	43.1	40.3	-2.8
B,6	39.0	40.6	1.6
B,7	39.0	41.0	2.0
B,8	38.0	39.5	1.5
B,9	38.3	37.1	-1.2
B,10	39.0	36.3	-2.8
B,11	40.4	35.9	-4.5
B,12	42.6	35.7	-6.9
C,2	41.0	37.9	-3.2
C,3	43.3	38.8	-4.5
C,4	43.5	39.8	-3.7
C,5	43.4	41.1	-2.3
C,6	43.3	41.4	-1.9
C,7	43.3	41.7	-1.6
C,8	42.6	39.7	-2.9
C,9	42.2	38.0	-4.2
C,10	41.6	37.7	-3.9
C,11	42.5	37.5	-5.0
C,12	44.3	37.2	-7.1
D,2	41.7	38.4	-3.3
D,3	46.2	39.4	-6.8
D,4	48.4	40.5	-7.9
D,5	48.2	42.0	-6.2
D,6	46.2	42.4	-3.8
D,7	44.2	42.4	-1.8
D,8	43.7	40.0	-3.8
D,9	43.1	39.6	-3.6
D,10	44.9	39.7	-5.3
D,11	44.5	39.1	-5.4
D,12	45.1	38.4	-6.7
E,1	42.4	38.2	-4.2
E,2	42.2	38.9	-3.3
E,3	46.7	40.1	-6.6
E,4	51.2	41.4	-9.8
E,5	51.0	43.2	-7.9
E,6	44.6	43.6	-1.1
E,9	43.1	41.4	-1.7
E,10	43.1	40.6	-2.5
E,11	46.1	39.4	-6.7

Area 1			
4th Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
C,4	44.2	36.8	-7.4
C,5	36.7	34.8	-1.9
C,6	36.0	33.6	-2.4
D,4	41.1	35.4	-5.7
D,5	34.2	33.9	-0.3
D,6	36.0	33.2	-2.8
D,7	41.4	34.4	-7.0
E,4	38.3	36.1	-2.2
E,5	34.8	36.0	1.2
E,6	36.7	34.5	-2.2
E,7	41.4	34.2	-7.2
F,2	51.7	41.1	-10.6
F,3	43.7	38.6	-5.1
F,5	37.3	36.3	-1.0
F,6	38.5	36.1	-2.4
F,7	42.1	36.2	-5.9
G,2	51.2	42.4	-8.9
G,3	42.1	38.8	-3.3
G,4	40.2	36.9	-3.4
H,2	50.1	43.4	-6.7
H,3	46.0	38.8	-7.2
H,4	46.1	36.9	-9.2

Area 3			
4th Quarter 2002			
Grid Points	IGA Annual Leq (24)	Calculated Leq (24)	Difference Leq
A,-1	38.9	32.5	-6.4
A,0	39.6	32.8	-6.8
A,1	43.2	33.8	-9.4
A,2	45.7	35.6	-10.1
A,3	45.6	36.8	-8.8
B,-1	37.9	32.1	-5.8
B,0	39.2	32.3	-6.9
B,1	42.6	33.2	-9.4
B,2	45.8	35.0	-10.9
B,3	45.7	36.6	-9.1
C,-1	36.7	32.9	-3.9
C,0	37.1	32.9	-4.2
C,1	39.5	33.6	-5.9
C,2	44.8	35.0	-9.8
C,3	46.5	36.8	-9.7
D,-1	32.6	33.9	1.3
D,0	33.3	33.8	0.5
D,1	37.3	34.2	-3.2
D,2	43.0	35.2	-7.8
E,-1	31.4	34.2	2.8
E,0	33.1	34.0	0.9
E,1	36.2	34.4	-1.8
E,2	40.6	35.3	-5.3
F,1	36.5	34.3	-2.3
F,2	39.4	35.7	-3.7
G,1	42.5	35.0	-7.5

Fourth Quarter 2002 - Runway Utilization

