



**CITY OF NAPLES AIRPORT AUTHORITY**

**QUARTERLY NOISE REPORT**

NUMBER 33

For the period

January 1, 2005 through March 31, 2005

Prepared by  
Airport Operations

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**PART I  
AIRCRAFT OPERATIONS**

**INTRODUCTION**

This is the thirty-third Quarterly Noise Report prepared by the City of Naples Airport Authority - Airport Operations Department. This report is informational in nature. The data included in this report tracks aircraft operations, noise complaints and noise monitoring results obtained from the six (6) monitoring locations surrounding the airport (Appendix D). The information contained in this report is fiscal year (Oct. – Sept.). All percentages are rounded to the nearest percent.

**AIRCRAFT OPERATIONS**

Table I, page 2, Airport Traffic Summary, contains aircraft movement data from FAA Form 7230-1 and after hour statistics recorded by the City of Naples Airport Authority Security Officers. Naples Air Traffic Control Tower is operational from 6:00 AM through 10:00 PM. A single movement represents either one arrival or one departure by the indicated aircraft category.

**This Quarter Compared to Previous Quarter**

This quarter's commuter traffic, compared to the previous quarter, has increased by 68%. General aviation activity has increased by 24%. Total traffic increased by 28%, from 38,341 operations to 49,138. The daily average for the Second Quarter was 547 operations.

**This Quarter Compared to the Same Period One Year Ago**

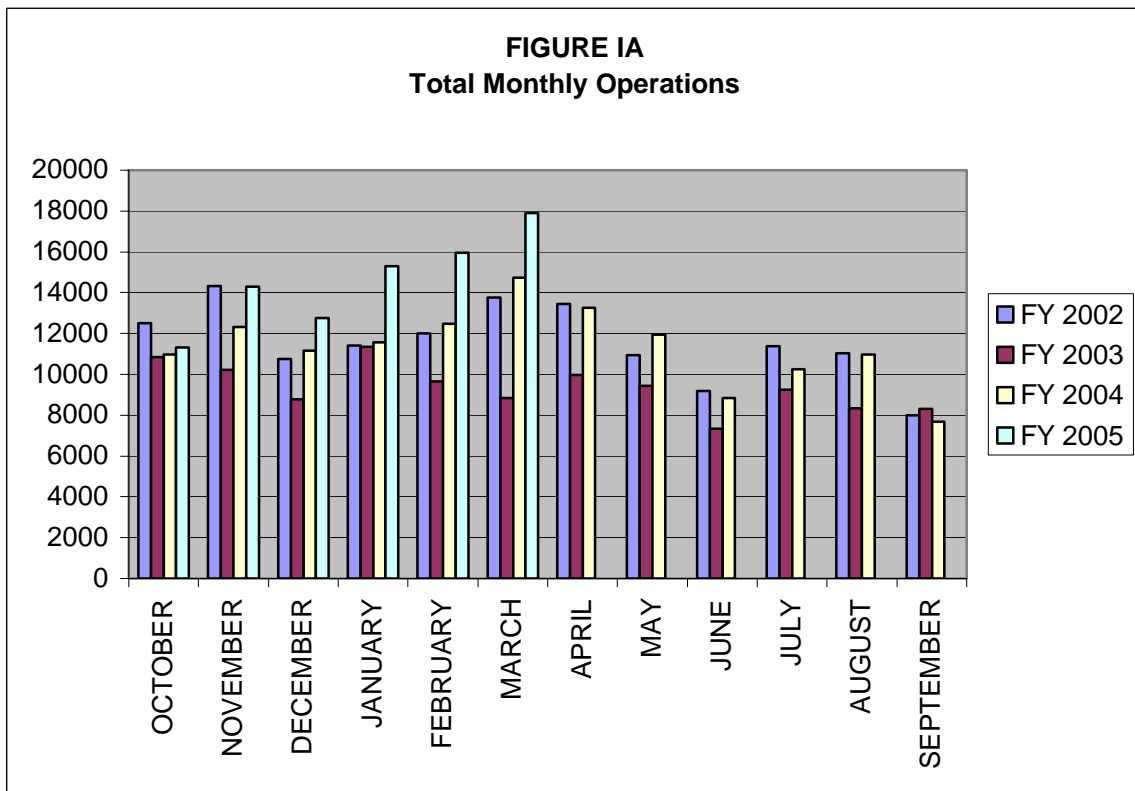
Compared to the same period last year, commuter traffic has increased by 23% and general aviation air traffic has increased 27%. Total air traffic operations increased by 27% from 38,754 operations to 49,138.

**Table I**

**AIRPORT TRAFFIC SUMMARY**  
**Landings and Takeoffs**  
**Fiscal Years 2004-2005**

YEAR	COMMUTER	GENERAL AVIATION	MILITARY	TOTAL TRAFFIC	DAILY AVERAGE
<b>2004</b>					
JANUARY	1,371	10,152	30	11,553	373
FEBRUARY	1,594	10,871	8	12,473	430
MARCH	1,654	13,069	5	14,728	475
TOTALS FOR 2nd QUARTER	4,619	34,092	43	38,754	426
APRIL	1,259	11,947	57	13,263	442
MAY	876	11,035	27	11,938	385
JUNE	331	8,475	19	8,825	294
TOTALS FOR 3rd QUARTER	2,466	31,457	103	34,026	374
JULY	287	9,936	13	10,236	330
AUGUST	269	10,682	19	10,970	354
SEPTEMBER	375	7,309	4	7,688	256
TOTALS FOR 4th QUARTER	931	27,927	36	28,894	313
TOTALS FOR FY04	10,472	125,407	249	136,128	370
<b>2005</b>					
OCTOBER	700	10,601	11	11,312	365
NOVEMBER	1,370	12,907	2	14,279	476
DECEMBER	1,311	11,431	8	12,750	411
TOTALS FOR 1st QUARTER	3,381	34,939	21	38,341	417
JANUARY	1,689	13,588	9	15,286	493
FEBRUARY	1,856	14,076	25	15,957	570
MARCH	2,149	15,734	12	17,895	577
TOTALS FOR 2nd QUARTER	5,694	43,398	46	49,138	547

Figure IA below illustrates the airport's month-by-month total operational levels for fiscal years 2002, 2003, 2004 and 2005.



There was a 27% increase in overall airport operations during the Second Quarter of 2005, when compared to the same period in 2004.

### Night Time Operations

Figure IB, below, illustrates the airport's total nighttime (10:00 PM – 7:00 AM) operational levels for fiscal year 2002, 2003, 2004 and 2005.

Total nighttime operations have decreased 7% in the Second Quarter of 2005 when compared to the Second Quarter 2004 statistics although jet operations occurring at night increased by 84 operations, single and multi-engine aircraft operations decreased by 136 operations.

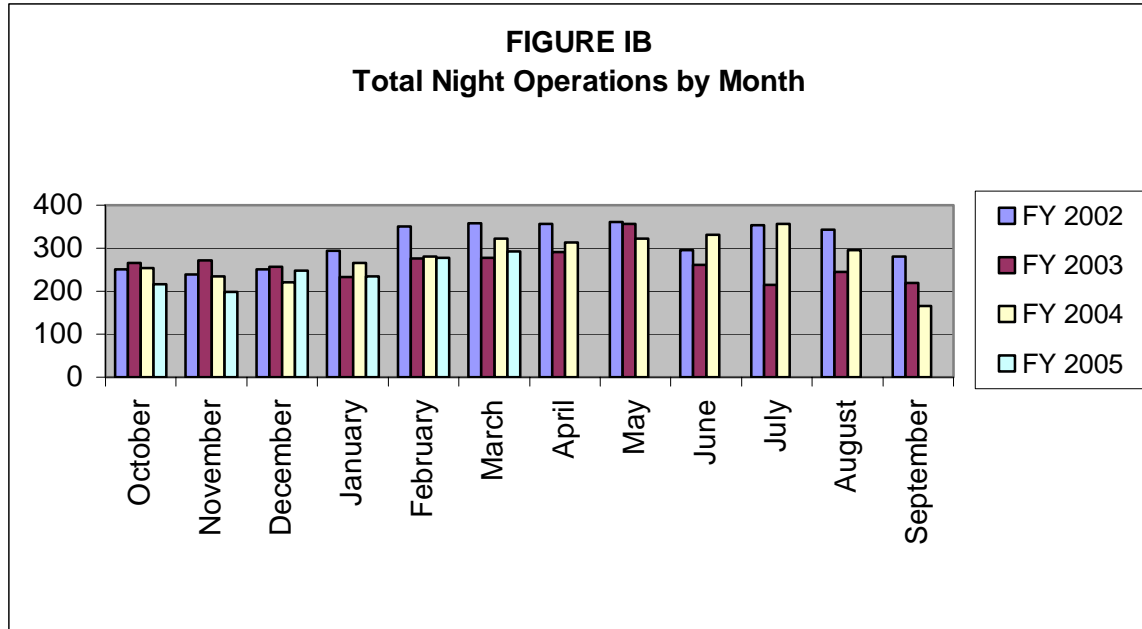


Table II, below, summarizes the types of nighttime operations occurring at the airport during the previous five quarters. Nighttime operations include voluntary curfew hours (10:00 PM through 7:00 AM). Reported nighttime operations have decreased by 62 total operations when compared to the same time last year.

As compared to the same time last year, the number of air ambulance operations have decreased by ten (10) operations. Single and multi-engine aircraft operations have decreased by 31%. The Public service operations represent 14% of the activity occurring at night.

**Table II**  
**Quarterly Air Traffic Nighttime Operations Summary – by Fiscal Year**

Activity	2 <sup>nd</sup> 2004	3 <sup>rd</sup> 2004	4 <sup>th</sup> 2004	1 <sup>st</sup> 2005	2 <sup>nd</sup> 2005
<b>Jets</b>					
Air Ambulance	14	2	2	1	4
Delta	0	0	0	11	85
Others	297	177	79	183	306
<b>Subtotal Jets</b>	<b>311</b>	<b>179</b>	<b>81</b>	<b>195</b>	<b>395</b>
<b>Public Service</b>					
Mosquito Control Operations	0	72	210	42	8
Collier Sheriff's Office	79	81	70	81	70
EMS	43	64	39	55	33
Coast Guard	0	0	0	0	0
<b>Subtotal Public Service</b>	<b>122</b>	<b>217</b>	<b>319</b>	<b>178</b>	<b>111</b>
<b>Single &amp; Multi-engine</b>	<b>435</b>	<b>571</b>	<b>417</b>	<b>289</b>	<b>299</b>
<b>Total</b>	<b>868</b>	<b>967</b>	<b>817</b>	<b>662</b>	<b>805</b>

## **PART II CITIZEN COMPLAINTS**

Table III, on page 7, is a summary of citizen noise complaints separated according to four geographical areas (Quadrants). Below is a sample representation of the neighborhoods in each Quadrant. Every neighborhood in the area is not included in this list, although it is included in the Quadrant total.

**Northeast Quadrant** - Briarwood, Coconut River Estates, Golden Gate, Grey Oaks, Hawks Ridge, Wyndemere, and surrounding northeast areas.

**Northwest Quadrant** - Bears Paw, Coconut River Estates, Coquina Sands, Country Club of Naples, Lake Forest, Lake Park, Park Shore, Ridge Lakes, River Estates, River Reach, Sun Terrace, Moorings, Wilderness, and surrounding northwest areas.

**Southwest Quadrant** - Aqualane Shores, Old Naples, Port Royal, Royal Harbor, and surrounding southwest neighborhoods.

**Southeast Quadrant** - Brookside, Coconut Grove, Flamingo Estates, Foxfire, Kings Lake, Lakewood, Naples Gardens, Rock Creek Campground, The Glades, and surrounding neighborhoods.

The analysis will include the specific nature of the complaint, whether it was an arriving or departing aircraft or an overflight. Complaints relative to nighttime Mosquito Control operations, Air Ambulance Flights, Sheriff's Office and EMS helicopter operations are included in this report.

### **This Quarter Compared to Previous Quarter**

This quarter's noise complaints, compared to the previous quarter, have increased from 64 to 221. Complaints received from neighborhoods to the northeast of the airport have increased by 5, from the northwest they have increased by 1, from the southeast they have decreased by 2, and from the southwest increased by 147.

### **This Quarter Compared to the Same Period One Year Ago**

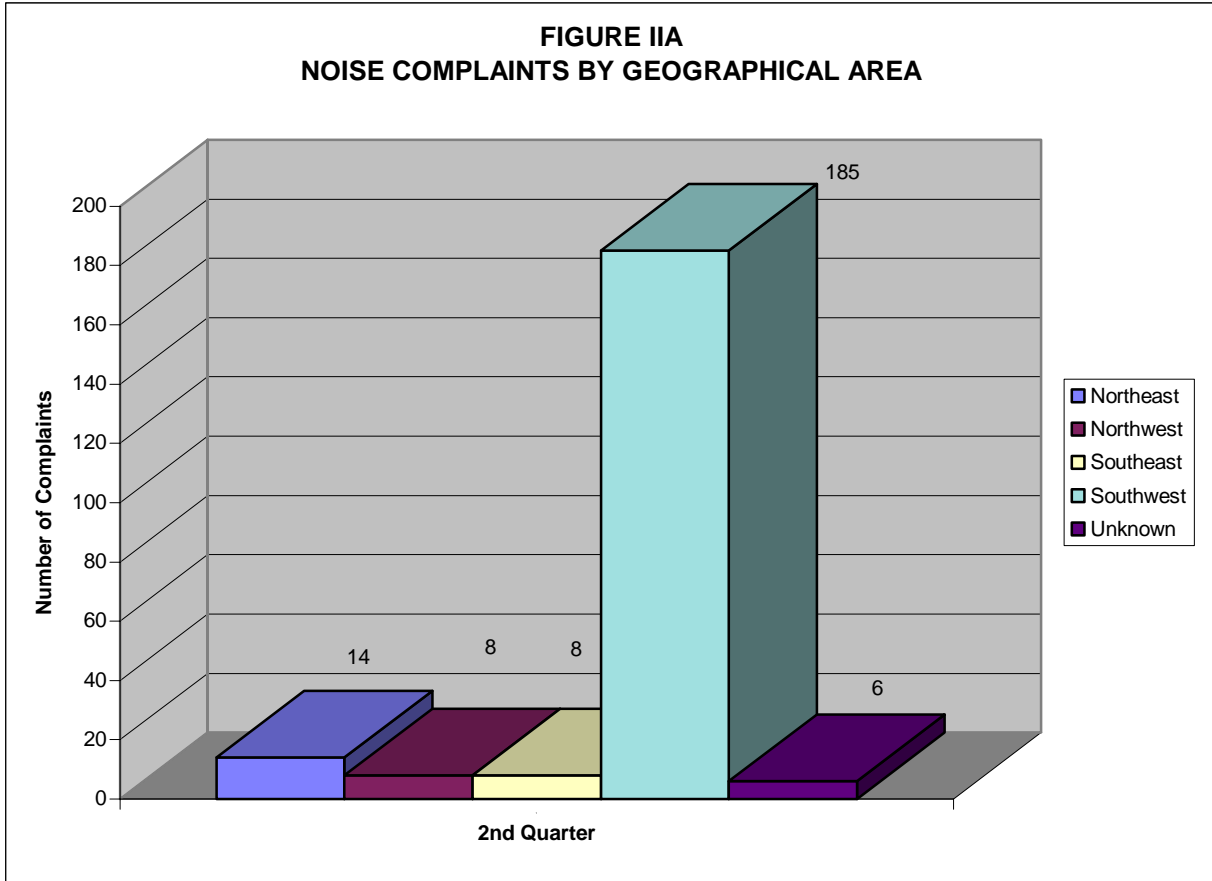
Compared to the same period last year, the total number of complaints increased by 27 calls. Complaints received from neighborhoods to the northeast of the airport have increased by 10, from the northwest they have decreased by 16, from the southeast decreased by 23, from the southwest increased by 50, and unknown location complaints have increased by 6. Total complaints received have increased from 194 to 221.



**Table III**  
**AIRPORT NOISE COMPLAINT SUMMARY**  
 Fiscal Years 2004-2005

YEAR	Northeast	Northwest	Southeast	Southwest	Unknown Location	Monthly Total
2004						
JANUARY	1	6	16	42	-	65
FEBRUARY	1	9	9	72	-	91
MARCH	2	9	6	21	-	38
TOTALS FOR 2nd QUARTER	4	24	31	135	-	194
APRIL	4	6	5	21	2	38
MAY	1	1	1	10	-	13
JUNE	-	1	2	4	-	7
TOTALS FOR 3rd QUARTER	5	8	8	35	2	58
JULY	2	2	3	4	-	11
AUGUST	2	1	11	3	-	17
SEPTEMBER	-	-	2	2	-	4
TOTALS FOR 4th QUARTER	4	3	16	9	-	32
TOTALS FOR FY04	19	38	73	232	4	366
2005						
OCTOBER	1	2	3	9	-	15
NOVEMBER	5	3	2	15	-	25
DECEMBER	3	2	5	14	-	24
TOTALS FOR 1st QUARTER	9	7	10	38	-	64
JANUARY	3	4	2	15	1	25
FEBRUARY	3	-	5	84	4	96
MARCH	8	4	1	86	1	100
TOTALS FOR 2nd QUARTER	14	8	8	185	6	221

Figure IIA, below, graphically compares the noise complaints received by geographical areas based on data collected during the Second Quarter of 2005. Total complaints for this quarter have increased 14% when compared to the same period one year ago.



### PART III COMPLAINTS BY TIMEFRAME

Figure IIIA, below, depicts noise complaints for the Second Quarter according to the time of the single event. Most complaints were received about operations occurring between 5:00 PM and 6:00 PM and at 10:00 PM. The rise in complaints during the 4:00 and 6:00 AM hours were a result of Mosquito Control spraying. Thirty-six percent (36%) of the total complaints were received during the voluntary curfew hours, which accounts for less than two percent (2%) of the total number of operations occurring during the Second Quarter of 2005.

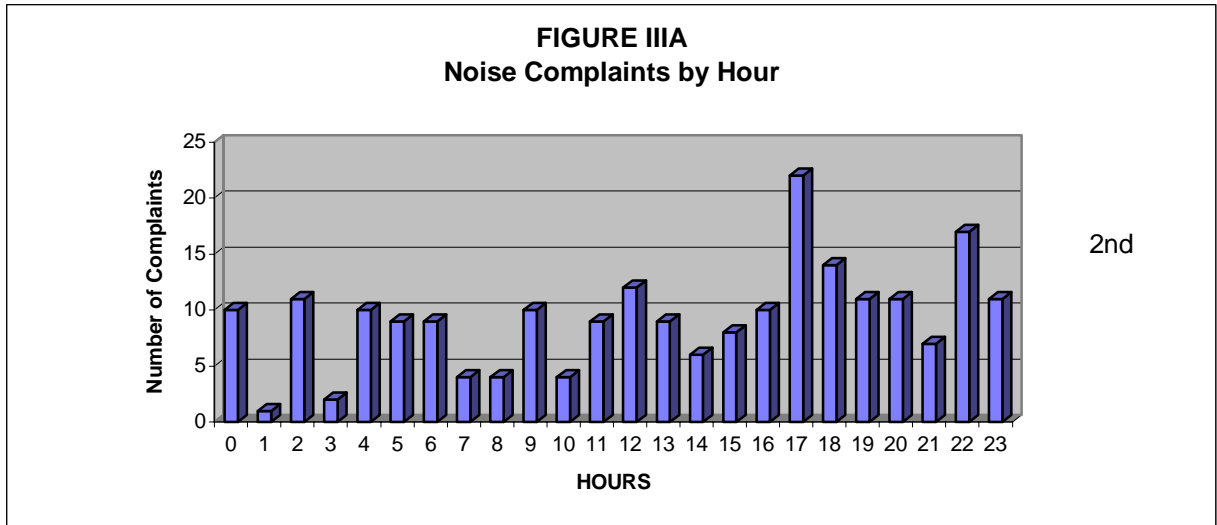
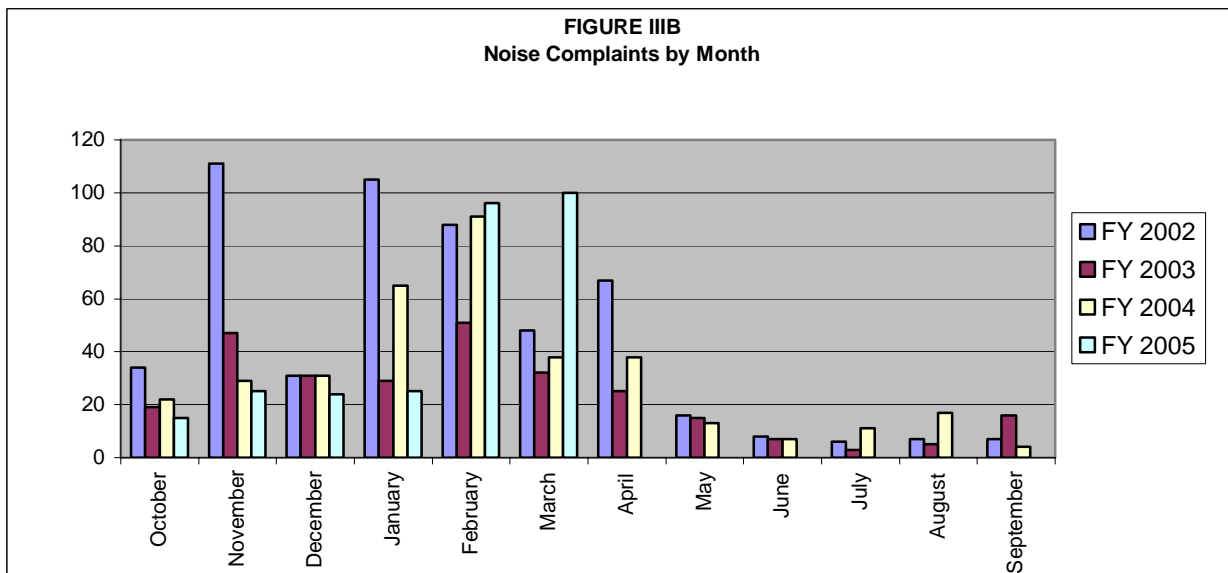


Figure IIIB below, illustrates the airport’s complaint volume for fiscal years 2002, 2003, 2004 and 2005.



**PART IV  
COMPLAINTS BY OPERATIONAL SOURCE**

Figure IVA below, indicates what types of aircraft the complainants were calling about. Seventy-six percent (76%) of the complaints were in regards to jet aircraft operations and of the total complaints received from jet aircraft operations, seven percent (7%) were from Stage 2 air ambulance operations.

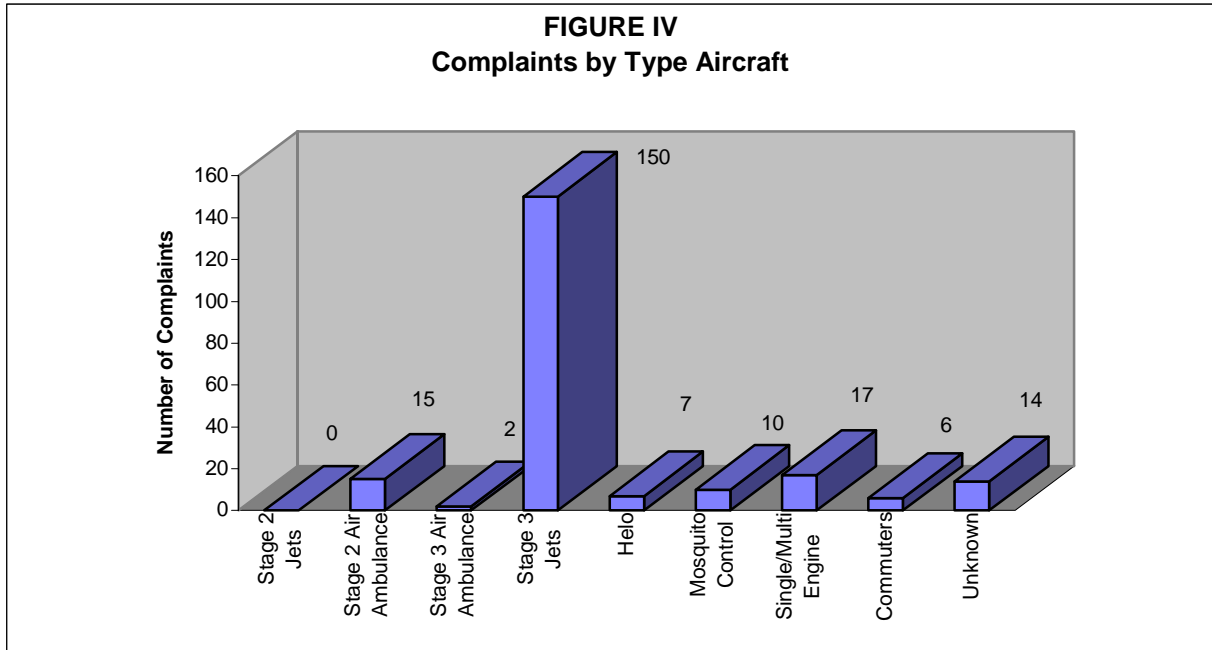
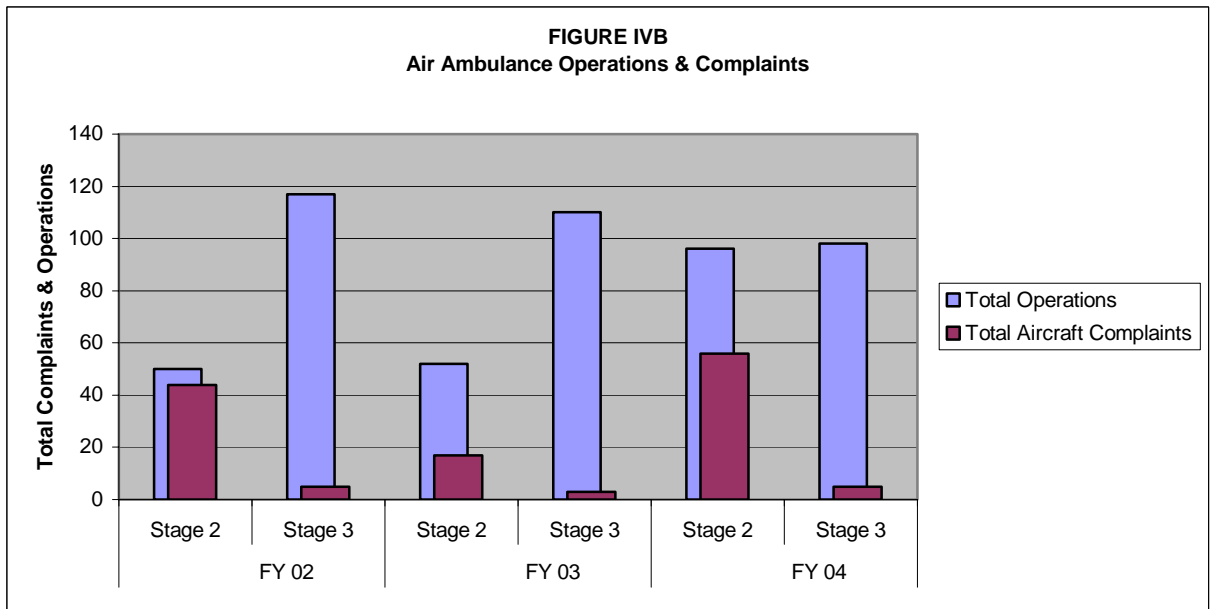
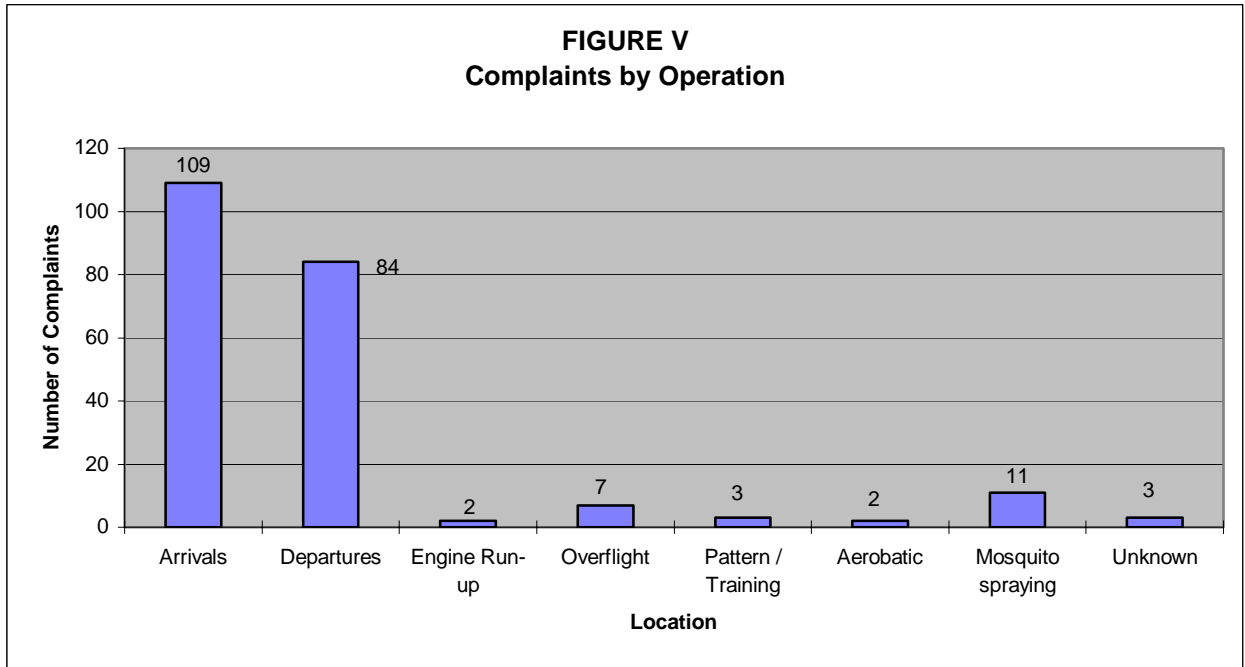


Figure IVB, below, depicts operations and noise complaints received from Stage 2 and Stage 3 Air Ambulances during FY 2002, 2003 and 2004.



**PART V**  
**COMPLAINTS BY OPERATION**

Figure V, below, shows the operational source of the noise complaints from the Second Quarter of 2005.



## SUMMARY

### **Air Traffic**

Compared to the previous quarter, commuter traffic has increased 68%, general aviation traffic has increased by 24%, and total air traffic has increased by 28%. Compared to the same period one year ago, commuter traffic increased 33%, general aviation operations have increased by 27%, and total traffic has increased 27%.

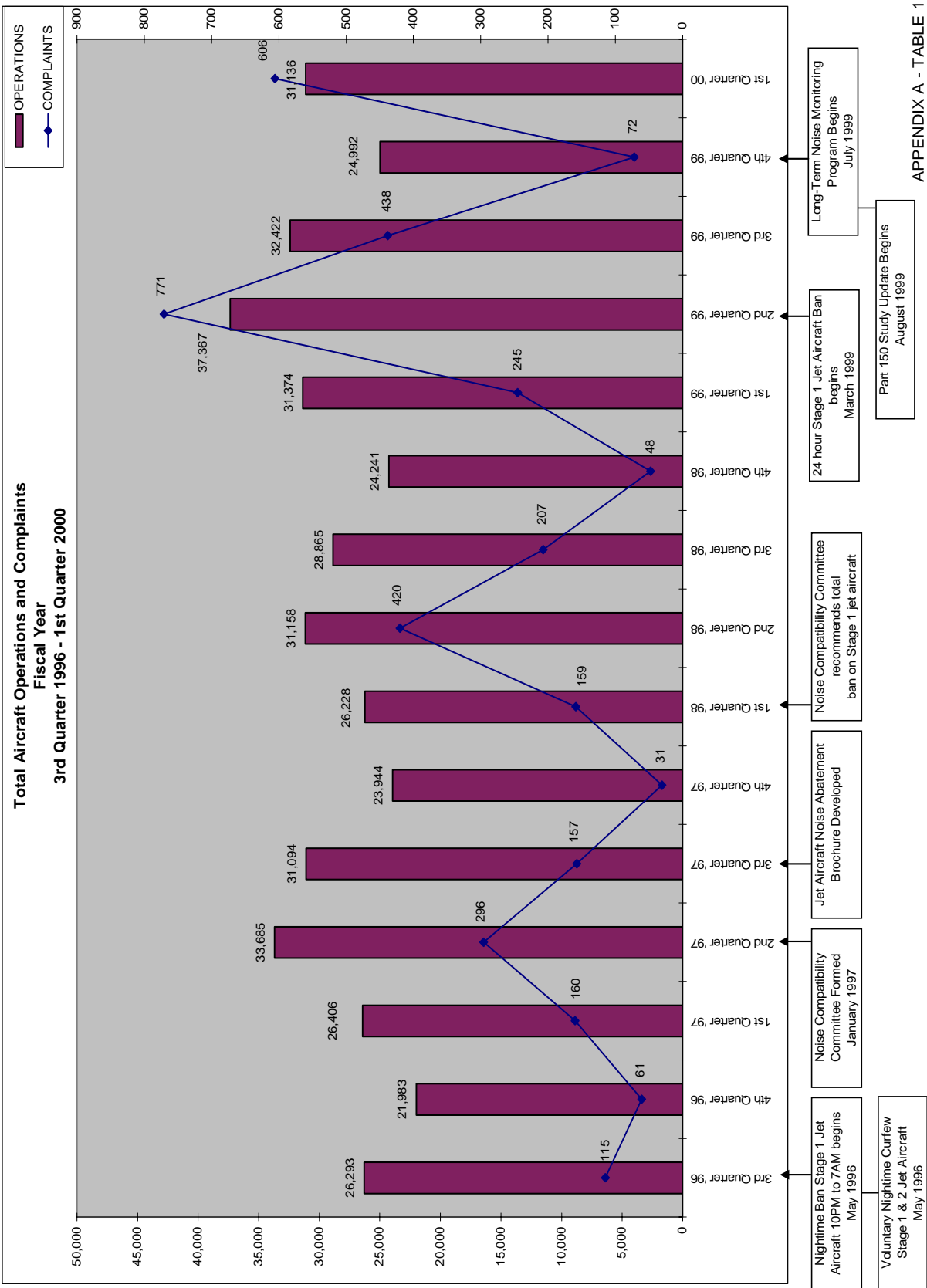
Fourteen percent (14%) of the total nighttime operations were attributed to Sheriff's Office, Emergency Services helicopters and air ambulance jet aircraft. Jet aircraft operations at night have increased by eighty-four (84) operations when compared to same period last year. Single and multi-engine operations have decreased by 31%, and Mosquito Control operations have increased by 8 operations. Overall nighttime operations have decreased by 7% when compared to last year.

### **Noise Complaints**

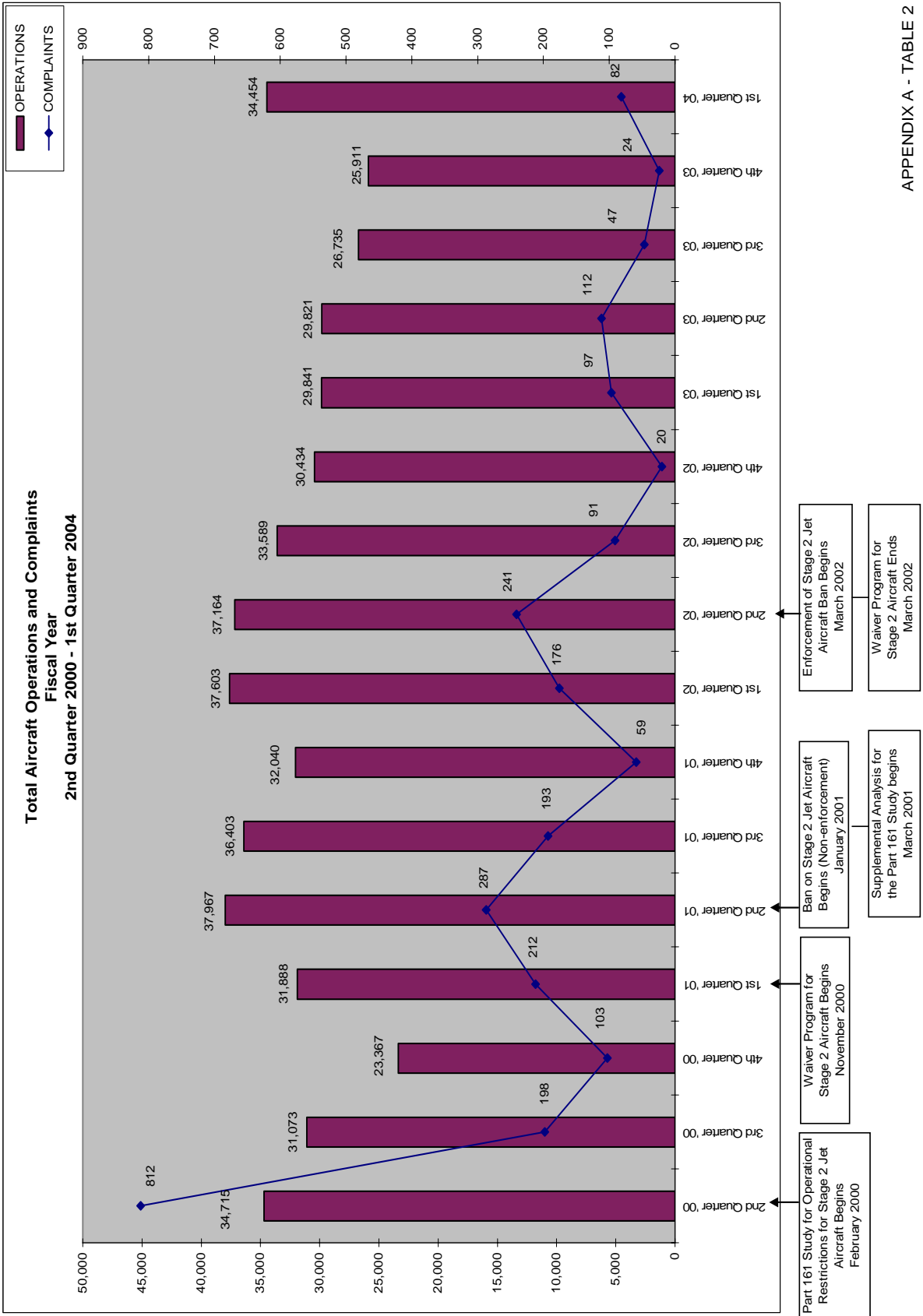
Compared to the previous quarter, noise complaints have increased from 64 to 221. Southwest Quadrant neighborhoods generated the most complaints during the Fiscal Second Quarter of 2005, with a total of 185 complaints. Other areas generated the following number of complaints: Northeast-14, Northwest-8, Southeast-8 and Unknown location-6.

### **Noise Complaints by Family**

One hundred and one (101) different families made 221 complaints to the Noise Abatement Office during the Second Quarter of 2005. Four families made 72 calls, or 33% of the total complaints. All four families were from the southwest.

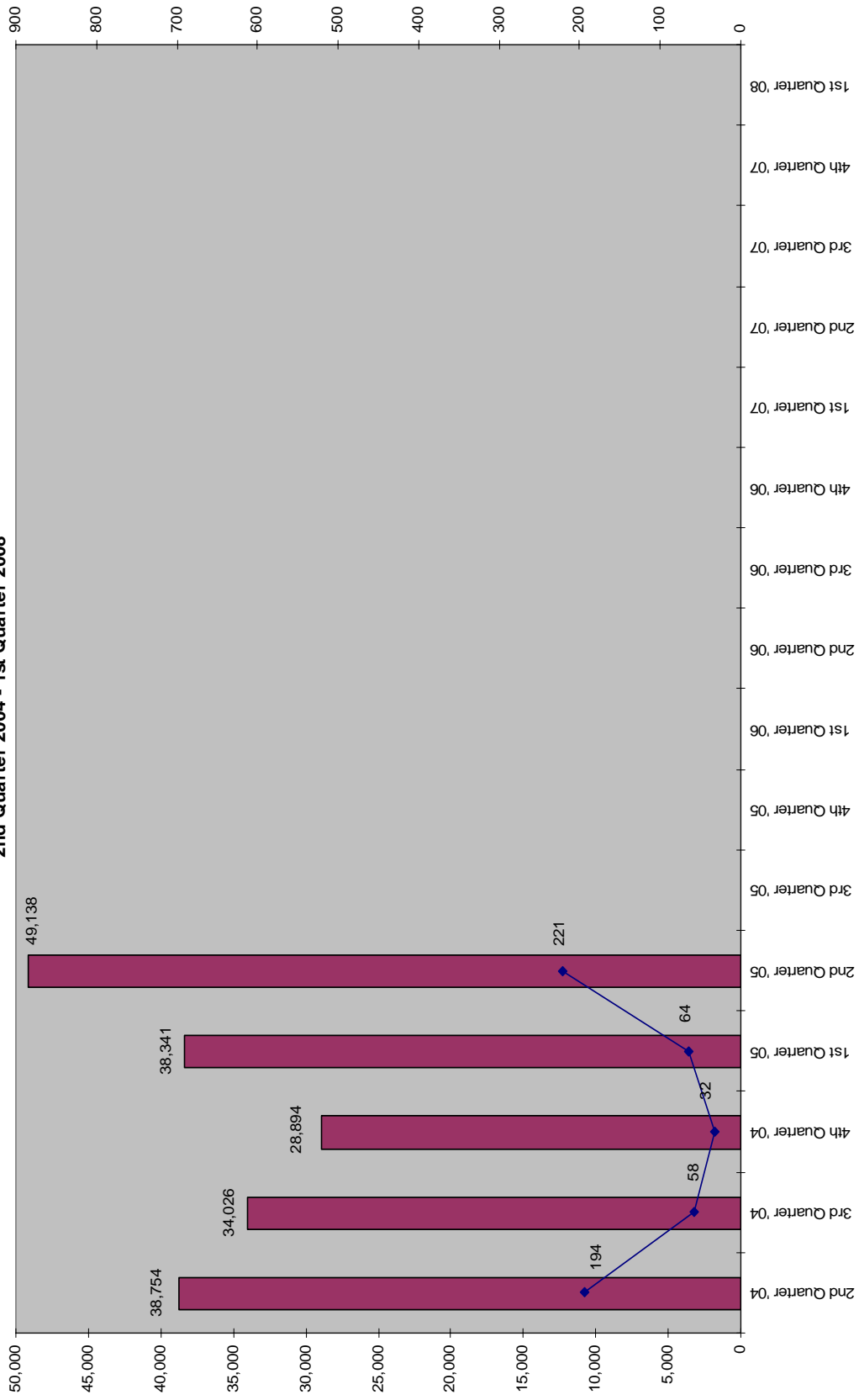


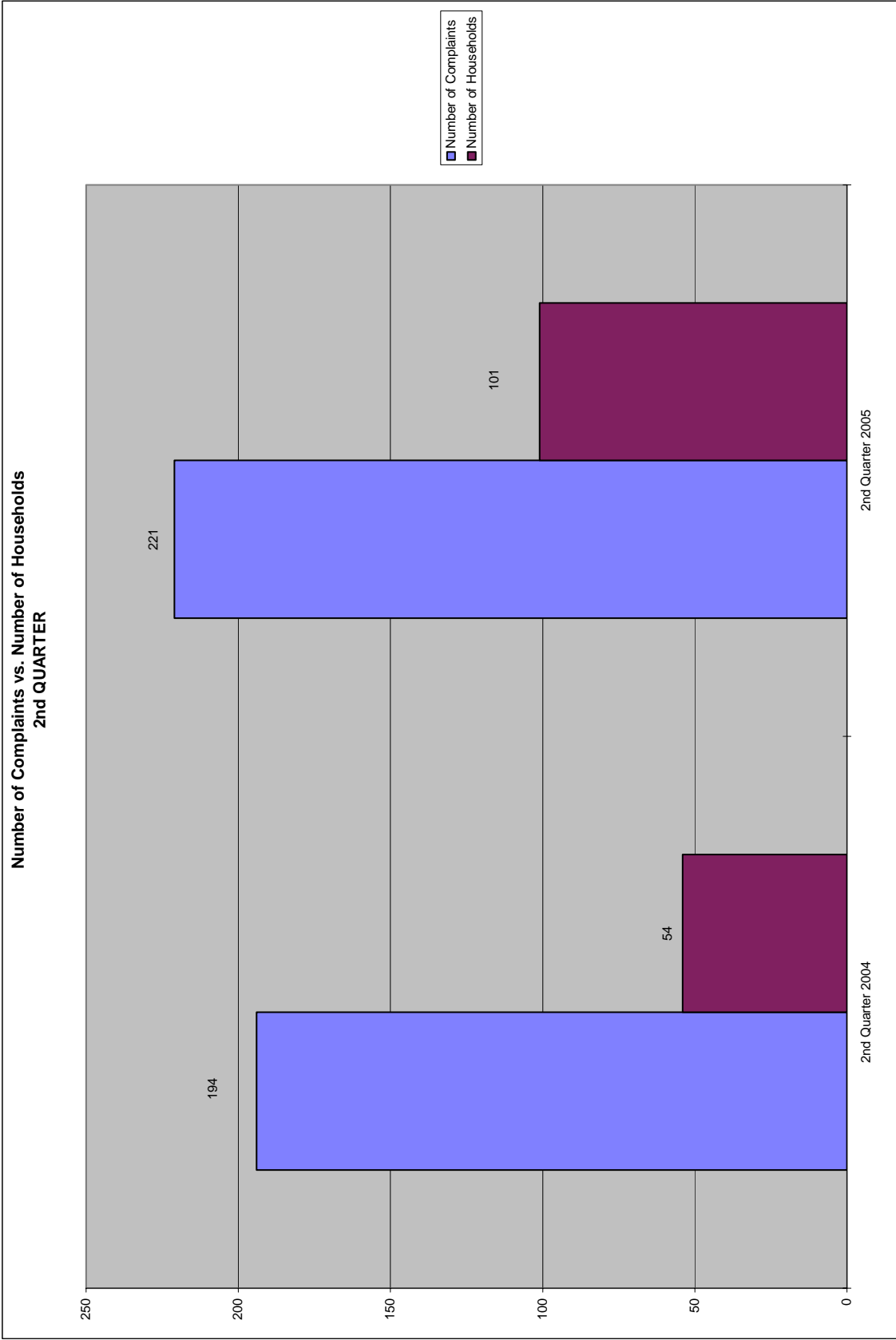
APPENDIX A - TABLE 1





**Total Aircraft Operations and Complaints**  
**Fiscal Year**  
**2nd Quarter 2004 - 1st Quarter 2008**





# NOISE COMPLAINTS / OPERATIONS SUMMARY

APPENDIX C

MONTH: January 2005

DATE	7 AM - 10 PM							10 PM - 7 AM							TOTAL OPERATIONS			
	JET+HELO+PROP			JET OPS				JET+HELO+PROP			JET OPS							
	EVENTS	COMPLAINTS	OPERATIONS	TOTAL STAGE 1 OPERATIONS	TOTAL STAGE 2 OPERATIONS	AA STAGE 1 (EXEMPT)	AA STAGE 2 (EXEMPT)	AA STAGE 3 OPERATIONS	EVENTS	COMPLAINTS	OPERATIONS	TOTAL STAGE 1 OPERATIONS	TOTAL STAGE 2 OPERATIONS	AA STAGE 1 (EXEMPT)		AA STAGE 2 (EXEMPT)	AA STAGE 3 OPERATIONS	STAGE 3 OPERATIONS
Sat-01			319								3						1	322
Sun-02			424					1	1	4							2	428
Mon-03			491							10							5	501
Tue-04	1	1	456							10							3	466
Wed-05			435							13							5	448
Thu-06			408							14							4	422
Fri-07			466							4							3	470
Sat-08			426							6							2	432
Sun-09	2	2	467							3							2	470
Mon-10			453							8							4	461
Tue-11			546							4						2	2	550
Wed-12	3	3	573							6							3	579
Thu-13	5	5	372				2	1	2	9							6	381
Fri-14			256							9							2	265
Sat-15	2	2	561							7							2	568
Sun-16			352				2			6							2	358
Mon-17			432							7							4	439
Tue-18			463							10							6	473
Wed-19	1	1	535							5						2	1	540
Thu-20	1	1	587							7							2	594
Fri-21	2	2	602							13							8	615
Sat-22			447							2							2	449
Sun-23			461							3							2	464
Mon-24			508							9							5	517
Tue-25			568							18							3	586
Wed-26			540							5							2	545
Thu-27			626					1	1	13							8	639
Fri-28			540					1	1	7							3	547
Sat-29			624							10							7	634
Sun-30	2	2	521							4							1	525
Mon-31	1	1	592							6							3	598
<b>TOTALS</b>	<b>20</b>	<b>20</b>	<b>15,051</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>235</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>105</b>	<b>15,286</b>

COMPLAINTS			
	DAY	NIGHT	TOTAL
Events	20	4	24
Complaints	20	5	25
Operations (Ops)	15,051	235	15,286
%Events/Ops	0.1%	1.7%	0.2%
Complaints/events	1.0	1.3	1.0
% Complaints/Ops	0.1%	2.1%	0.2%

NIGHT OPERATIONS		
Air Ambulance (AA)	J	0
EMS	H	4
Sheriff's Office	H	19
Mosquito Control	H	0
Mosquito Control	P	0
<b>Public Service</b>	J,H,P	<b>23</b>
Air Carrier & GA [Other]	H,P	107
Jet Operations	J	105
<b>Night Ops - Total</b>	J,H,P	<b>235</b>

RESTRICTIONS		Violations	Letters
<b>Mandatory Restriction (MR)</b>			
Runups: Maintenance		0	0
Jet Stage 1 day & night Ops		0	0
Jet Stage 2 day & night Ops		0	0
<b>Voluntary Restriction (VR)</b>			
Jet Stage 3 night Ops			3
		<b>Non-compliance</b>	

# NOISE COMPLAINTS / OPERATIONS SUMMARY

APPENDIX C

MONTH: February 2005

DATE	7 AM - 10 PM							10 PM - 7 AM							TOTAL OPERATIONS			
	JET+HELO+PROP			JET OPS				JET+HELO+PROP			JET OPS							
	EVENTS	COMPLAINTS	OPERATIONS	TOTAL STAGE 1 OPERATIONS	TOTAL STAGE 2 OPERATIONS	AA STAGE 1 (EXEMPT)	AA STAGE 2 (EXEMPT)	AA STAGE 3 OPERATIONS	EVENTS	COMPLAINTS	OPERATIONS	TOTAL STAGE 1 OPERATIONS	TOTAL STAGE 2 OPERATIONS	AA STAGE 1 (EXEMPT)		AA STAGE 2 (EXEMPT)	AA STAGE 3 OPERATIONS	STAGE 3 OPERATIONS
Tue-01	1	1	613					1	1	6						6	619	
Wed-02			466					1	2	11						9	477	
Thu-03			628					2	2	12							640	
Fri-04			308							6						3	314	
Sat-05			553				2			6						4	559	
Sun-06	1	1	604							11						5	615	
Mon-07			549					1	1	24						12	573	
Tue-08			683							4						3	687	
Wed-09			706							19						9	725	
Thu-10	2	3	566							13						6	579	
Fri-11			571							3						2	574	
Sat-12			599							11						6	610	
Sun-13	1	1	533							2						1	535	
Mon-14			562					4	4	5						1	567	
Tue-15	1	1	668							10						3	678	
Wed-16			612							9						6	621	
Thu-17	2	2	594							5						4	599	
Fri-18	8	13	732					2	3	9						2	741	
Sat-19	2	2	533					1	2	14						6	547	
Sun-20	6	8	602					2	3	17						2	619	
Mon-21	4	4	539				2			9						2	548	
Tue-22	5	6	707							11						8	718	
Wed-23	1	2	624					2	2	10						6	634	
Thu-24	1	1	628					1	1	15						8	643	
Fri-25	3	3	231				2	1	2	9						6	240	
Sat-26	5	6	506					1	1	9						6	515	
Sun-27	3	3	352					1	1	7						6	359	
Mon-28	5	5	410					2	9	11				2		8	421	
																	0	
																	0	
																	0	
<b>TOTALS</b>	<b>51</b>	<b>62</b>	<b>15,679</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>10</b>	<b>22</b>	<b>34</b>	<b>278</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>140</b>	<b>15,957</b>

COMPLAINTS			
	DAY	NIGHT	TOTAL
Events	51	22	73
Complaints	62	34	96
Operations (Ops)	15,679	278	15,957
%Events/Ops	0.3%	7.9%	0.5%
Complaints/events	1.2	1.5	1.3
% Complaints/Ops	0.4%	12.2%	0.6%

NIGHT OPERATIONS		
Air Ambulance (AA)	J	2
EMS	H	16
Sheriff's Office	H	28
Mosquito Control	H	0
Mosquito Control	P	0
<b>Public Service</b>	J,H,P	46
Air Carrier & GA [Other]	H,P	92
Jet Operations	J	140
<b>Night Ops - Total</b>	J,H,P	278

RESTRICTIONS		Violations	Letters
<b>Mandatory Restriction (MR)</b>			
Runups: Maintenance		0	0
Jet Stage 1 day & night Ops		0	0
Jet Stage 2 day & night Ops		0	0
<b>Voluntary Restriction (VR)</b>			
Jet Stage 3 night Ops	<b>Non-compliance</b>		6

# NOISE COMPLAINTS / OPERATIONS SUMMARY

APPENDIX C

MONTH: March 2005

DATE	7 AM - 10 PM							10 PM - 7 AM							TOTAL OPERATIONS			
	JET+HELO+PROP			JET OPS				JET+HELO+PROP			JET OPS							
	EVENTS	COMPLAINTS	OPERATIONS	TOTAL STAGE 1 OPERATIONS	TOTAL STAGE 2 OPERATIONS	AA STAGE 1 (EXEMPT)	AA STAGE 2 (EXEMPT)	AA STAGE 3 OPERATIONS	EVENTS	COMPLAINTS	OPERATIONS	TOTAL STAGE 1 OPERATIONS	TOTAL STAGE 2 OPERATIONS	AA STAGE 1 (EXEMPT)		AA STAGE 2 (EXEMPT)	AA STAGE 3 OPERATIONS	STAGE 3 OPERATIONS
Tue-01			567						1	1	10						7	577
Wed-02	1	1	681						1	1	13						7	694
Thu-03			698								13						7	711
Fri-04			710						3	6	9						5	719
Sat-05			602								10				2		4	612
Sun-06	3	3	648								7						4	655
Mon-07			688								7						3	695
Tue-08			366						1	1	14						10	380
Wed-09			235						1	2	6						6	241
Thu-10			663								7						3	670
Fri-11	1	2	655								6						5	661
Sat-12			561								5						2	566
Sun-13	2	3	554								7						3	561
Mon-14	5	8	605								7						2	612
Tue-15	4	4	608						1	1	8						4	616
Wed-16	2	8	386				2		3	10	15						7	401
Thu-17	3	3	197								10						4	207
Fri-18	2	2	747						4	7	9						6	756
Sat-19	2	3	613					2	2	2	10						3	623
Sun-20	3	3	613						2	2	12						5	625
Mon-21	1	1	594					2	2	2	8						6	602
Tue-22	1	1	412						1	2	12						5	424
Wed-23			455					2			7						4	462
Thu-24	3	3	659						1	2	14						7	673
Fri-25			602					2	1	1	13						7	615
Sat-26			461					2	1	1	11						4	472
Sun-27	3	3	516								5						2	521
Mon-28	1	3	424					2			11						7	435
Tue-29	3	3	784								7						2	791
Wed-30	2	2	676								11						2	687
Thurs-31	3	3	622								9						3	631
<b>TOTALS</b>	<b>45</b>	<b>59</b>	<b>17,602</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>22</b>	<b>25</b>	<b>41</b>	<b>293</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>146</b>	<b>17,895</b>

COMPLAINTS			
	DAY	NIGHT	TOTAL
Events	45	25	70
Complaints	59	41	100
Operations (Ops)	17,602	293	17,895
%Events/Ops	0.3%	8.5%	0.4%
Complaints/events	1.3	1.6	1.4
% Complaints/Ops	0.3%	14.0%	0.6%

NIGHT OPERATIONS		
Air Ambulance (AA)	J	2
EMS	H	13
Sheriff's Office	H	23
Mosquito Control	H	6
Mosquito Control	P	2
<b>Public Service</b>	J,H,P	<b>46</b>
Air Carrier & GA [Other]	H,P	101
Jet Operations	J	146
<b>Night Ops - Total</b>	J,H,P	<b>293</b>

RESTRICTIONS		Violations	Letters
<b>Mandatory Restriction (MR)</b>			
Runups: Maintenance		0	0
Jet Stage 1 day & night Ops		0	0
Jet Stage 2 day & night Ops		0	0
<b>Voluntary Restriction (VR)</b>			
Jet Stage 3 night Ops			13
		<b>Non-compliance</b>	

**RECURRING NOISE MONITORING PROGRAM RESULTS  
JANUARY 1 – MARCH 31, 2005**

The purpose of this program is to conduct recurring monitoring sessions at selected locations in the airport environs to assist the Naples Airport Authority in identifying any changes in patterns and levels of noise exposure from season to season and year to year. Section I provides a basic description of activity noted during the monitoring period. Section II provides an activity comparison between quarters and a seasonal year-to-year comparison. Section III includes the quarterly decibel levels measured each quarter and a map depicting the monitoring locations and results from the most current monitoring period.

This program includes the following goals:

- Provide an objective basis for identifying long-term changes in noise exposure to correlate the changes in activity levels, facilities, airline schedules, airport rules, etc.
- Provide an objective basis for identifying seasonal variation in noise exposure.
- Provide an objective basis for evaluating geographic variation in noise exposure.
- Provide the interested public with useful, understandable, geographically representative information on long-term noise exposure patterns.
- Address the preceding technical objectives in the most efficient manner possible.

Staff spent several hours at the six locations, specifically documenting aircraft operations and determining what other sources produce significant sound levels in the vicinity of the monitors. Every source will contribute to the overall DNL results, as these sources may be louder than aircraft operations. Any type of “exceedance” occurring during these monitoring periods was noted. An exceedance is an event caused by any type of source (car, aircraft, or siren) which triggers the noise monitor to begin recording an event. An exceedance is only recorded if it lasts greater than five (5) seconds, and is louder than the threshold set on the monitor. During this round of monitoring, all monitor thresholds were set at 60 decibels to get as close as possible to the ambient background noise level at each site.

## SECTION I – QUARTERLY SITE ACTIVITY SUMMARY

All locations were monitored for approximately a ten day period, and staff were present at each location at least three times for various periods, noting exceedances, sound exposure levels \*(SEL) of various types of aircraft and background noise levels. Staff has also been able to provide noise monitor briefings, as well as, information about noise issues at the airport. The following SEL's and overall background noise levels noted in Section III were verified by staff during the on-site visits.

\* The Sound Exposure Level (SEL) is defined as a summation of the "A-weighted" sound energy over the duration of a noise event, where the duration is defined as the time when the sound level first exceeds a threshold level (in this case it's 60 dB) to the time that the sound level drops back down below the threshold. This energy is then squeezed into a one-second interval and the resulting energy level is called the SEL.

Below is a representative list of Sound Exposure Level (SEL) observations made at three sites. The event duration was added to the table below because the duration of the event directly impacts the Sound Exposure Level.

### **Aircraft Arriving at Airport:**

SITE / LOCATION	AIRCRAFT TYPE	SEL LEVEL	EVENT DURATION in seconds
Village Green / 1 ½ miles SW of airport	Twin Engine King Air	81.6 decibels	24.96
Village Green / 1 ½ miles SW of airport	Single Engine Cheyenne	81.5 decibels	23.06
Village Green / 1 ½ miles SW of airport	Single Engine Cessna 182	69.1 decibels	6.56
Village Green / 1 ½ miles SW of airport	Lear Jet 60	76.1 decibels	13.87
Village Green / 1 ½ miles SW of airport	Citation 550 Jet	81.0 decibels	18.87
Village Green / 1 ½ miles SW of airport	Gulfstream IV Jet	81.8 decibels	19.81
Wyndemere/ 2 ¼ miles NE of airport	Falcon 50 Jet	79.1 decibels	21.12
Wyndemere/ 2 ¼ miles NE of airport	Gulfstream V Jet	77.4 decibels	24.31
Pulling Property / 3/8 mile SW of airport	Falcon 50 Jet	74.9 decibels	16.06

**Aircraft Departing Airport:**

<b>SITE / LOCATION</b>	<b>AIRCRAFT TYPE</b>	<b>SEL LEVEL</b>	<b>EVENT DURATION in seconds</b>
Pulling Property / 3/8 mile SW of airport	Single Engine Caravan	70.3 decibels	6.12
Pulling Property / 3/8 mile SW of airport	Twin Engine Cessna 402 – Cape Air	72.2 decibels	11.28
Wyndemere/ 2 1/4 miles NE of airport	Twin Engine Baron	76.9 decibels	29.31
Wyndemere/ 2 1/4 miles NE of airport	Single Engine Cherokee	69.1 decibels	8.68



## SECTION II – SEASONAL AND ANNUAL COMPARISON OF SITES

Noise Monitoring Site Summary Comparison between the Fiscal First Quarter of 2005 and the Fiscal Second Quarter of 2005, and a comparison between the same period last year.

A comparison of the six monitoring sites revealed that the DNL increased at five sites, decreased at one site when compared to last quarter. The DNL increased at three sites, decreased at two sites when compared to same period last year (data not available for one site for this comparison). Below is a summary of each site. The changes in background noise are speculative unless staff observed changes in area construction levels, vehicular traffic or other activity.

The following guidelines may be helpful in interpreting community response to changes in DNL above 55 dB.

<u>Change in DNL</u>	<u>Community Response</u>
0 – 2 dB's	May be noticeable
2 – 5 dB's	Generally noticeable
Over 5 dB's	A change in community reaction is likely

**Site 1** – The DNL appears to have increased by 2.9 decibels during the Fiscal Second Quarter. When compared to the same period last year the DNL has decreased by 1.9 decibels. The background noise at this site has increased by 1.9 decibels.

**Site 2A** – The DNL at this site was 63.8 decibels which is an increase of 6.0 decibels when compared to the previous quarter. Data is not available for comparison to the same period last year. Background noise level was 46.0 decibels.

**Site 3** – This site produced a DNL of 58.1 decibels. This data is an increase of 1.7 decibels when compared to the previous quarter and a decrease of 2.5 decibels when compared to the same period last year. Background noise level at this site was 45.1 decibels.

**Site 4** – The DNL at this site was 57.8 decibels, which is a 0.7-decibel decrease when compared to the previous quarter and a 0.9 decibel increase when compared to the same period last year. Background noise level decreased by 2.7 decibels.

**Site 5** – This site produced a DNL of 54.8 decibels. This data is an increase of 0.1 decibels when compared to the previous quarter. When compared to the same period last year the DNL has increased by 0.5 decibels. The background noise level at this site has increased by 1.6 decibels when compared to the Fiscal Second Quarter of 2004.

**Site 7** – The DNL at this site increased by 0.5 decibels. When compared to the same quarter last year there is an increase of 0.8 decibels. There was a 3.5-decibel increase in background noise at this site when compared to the previous quarter.

## DNL Comparison

### Fiscal Year

<b>Site</b>	<b>Second Quarter 2004</b>	<b>First Quarter 2005</b>	<b>Second Quarter 2005</b>
1	62.8 dB	58.0 dB	60.9 dB
2A	N/A	57.8 dB	63.8 dB
3	60.6 dB	56.4 dB	58.1 dB
4	56.9 dB	58.5 dB	57.8 dB
5	54.3 dB	54.7 dB	54.8 dB
7	59.3 dB	59.6 dB	60.1 dB

**SECTION III**  
**NOISE MONITORING SITE SUMMARY**  
 Fiscal Year

SITES	2nd Quarter Jan. - Mar. 2004		3rd Quarter Apr. - June 2004		4th Quarter July - Sept. 2004		1st Quarter Oct. - Dec.. 2005		2nd Quarter Jan. - Mar. 2005	
	Bkgrnd	Total	Bkgrnd	Total	Bkgrnd	Total	Bkgrnd	Total	Bkgrnd	Total
1 Springwood-East Naples	47.3	62.8	48.4	58.2	49.2	58.8	47.5	58	49.2	60.9
2A Pulling Property	N/A	N/A	43.8	59.5	43.1	55.3	45.3	57.8	46	63.8
3 First Presbyterian Church - 6th St. South	47.5	60.6	47.7	59.6	48.7	61.3	47.3	56.4	45.1	58.1
4 Village Green - 11th Avenue South	43.8	56.9	44.7	59.9	43.9	59.7	45.6	58.5	42.9	57.8
5 The Conservancy	42	54.3	44.2	55.1	43.1	55.1	45.7	54.7	43.6	54.8
7 Wyndemere CC	48.8	59.3	44	55.8	47	58.5	45.8	59.6	49.3	60.1

**Bkgrnd** - The background noise level or the quietest level that would be experienced in the absence of most significant noise-producing human activity.

**Total** - Total noise as it occurs over a 24-hour period, adding a 10-decibel penalty to sound events occurring at night between the hours of 10:00 PM and 7:00 AM.