

# Aviation Noise Report - 2006 Year End Review



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# Aircraft Operations at Sky Harbor International Airport

## Jet Propelled Aircraft

The Fleet mix at Phoenix Sky Harbor International Airport continues to change as older aircraft get phased out by air carriers in the United States. This is best represented in the decrease in "Hush-kitted" Aircraft which were retrofitted to comply with Stage III standards set forth by the Federal Government and the Aircraft Noise and Capacity Act of 1990.

[Aircraft Designators (Equipment) can be identified by their common names at: <http://ntl.bts.gov/lib/5000/5300/5385/916.PDF>]

Equipment	2002	2003	2004	2005	2006
A306	1,594	1,158	1,056	1,971	2,123
A310	23	46	51	25	55
A318	1	29	371	293	447
A319	27,975	32,958	31,773	37,016	43,952
A320	45,257	50,026	63,903	74,640	74,996
A321	1,434	510	1,951	1,471	3,589
A332	0	0	0	0	2
A340	383	358	26	0	0
ASTR	181	260	256	326	273
AV8	18	12	41	32	16
B707	3	0	0	3	3
B712	0	0	0	2	2
B720	91	14	41	43	36
B72Q	4,313	3,898	4,429	3,048	1,487
B737	166,611	188,574	184,204	191,060	182,456
B73Q	15,118	14,707	8,041	121	51
B744	46	57	488	630	626
B757	22,192	25,360	26,293	24,340	20,042
B762	4,621	4,072	3,923	3,584	2,372
B772	616	700	172	19	12
BE40	624	930	1,048	1,070	1,443
C135	16	23	12	3	12
C25A	5	0	76	105	76
C500	75	94	40	49	65
C501	99	86	61	114	117
C525	349	516	554	549	686

Equipment	2002	2003	2004	2005	2006
C526	6	104	175	10	2
C550	898	1048	966	1101	1173
C551	27	23	13	14	4
C560	895	2058	1487	1718	1546
C56X	284	0	949	1,353	1,592
C650	491	479	405	456	415
C680	0	0	6	36	121
C750	555	656	933	1,147	1,160
CARJ	36,254	66,943	74,437	84,054	66,038
CL60	365	627	874	1,119	1,135
DA20	31	13	11	25	6
DC10	644	43	28	306	112
DC8	0	217	16	0	59
DC8Q	11	20	15	288	255
DC9	45	58	85	808	1,008
DC9Q	755	869	862	76	5
E135	4,493	178	427	604	454
E145	173	48	17	7	9
F100	11	0	0	0	0
F2TH	311	437	609	760	628
F900	232	329	286	305	288
FA10	90	100	71	81	44
FA20	297	320	264	239	193
FA50	434	419	239	251	207
GALX	57	100	208	385	411
GLF2	127	175	179	187	160

Equipment	2002	2003	2004	2005	2006
GLF3	199	158	104	167	180
GLF4	498	614	722	750	631
GLF5	116	120	163	203	197
H25A	128	181	91	57	77
H25B	916	1,120	1,266	1,248	1,173
H25C	109	107	105	76	39
KC35	871	1,353	1,118	1,143	983
L101	5	24	3	6	4
LJ23	2	4	1	0	0
LJ24	75	142	112	98	56
LJ25	164	326	354	272	219
LJ28	7	3	6	4	2
LJ29	50	77	59	36	7
LJ31	268	372	351	355	508
LJ35	2,534	2,745	3,104	2,743	2,449
LJ36	7	12	0	0	1
LJ45	145	305	417	595	642
LJ55	131	126	155	155	156
LJ60	449	517	543	666	483
MD11	23	54	18	21	49
MD80	19,355	19,171	12,778	12,907	14,219
MD90	13	6	2	550	2,380
MU30	283	190	147	116	90
SBR1	123	92	94	46	43
WW23	8	2	2	0	0
WW24	244	198	174	190	193
<b>Totals*</b>	<b>366,052</b>	<b>427,906</b>	<b>434,825</b>	<b>458,816</b>	<b>437,548</b>

Notes: \*These totals reflect only aircraft propelled by jet engines with significant operations at Sky Harbor Airport.

Cells which are highlighted in aqua highlight a significant change in operations by a particular aircraft.

## Annual Operations

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
2006	47,337	42,482	47,902	44,919	46,515	44,990	45,428	46,349	43,777	45,845	45,067	45,899	546,510
2005	46,062	42,748	48,686	47,144	48,584	46,889	47,449	48,125	45,829	47,573	46,845	47,602	563,536
2004	49,797	48,627	50,607	50,269	50,555	49,105	50,141	50,409	48,654	46,218	45,043	47,110	586,535
2003	50,622	45,302	50,879	49,716	50,156	48,350	49,674	50,025	47,845	50,989	47,741	49,793	591,092
2002	47,495	44,131	50,601	49,430	50,637	49,012	49,359	50,886	47,832	51,335	49,486	50,125	590,329
Avg.	48,263	44,658	49,735	48,296	49,289	47,669	48,410	49,159	46,787	48,392	46,836	48,106	



# Sky Harbor International Airport Historical Noise Complaints by City

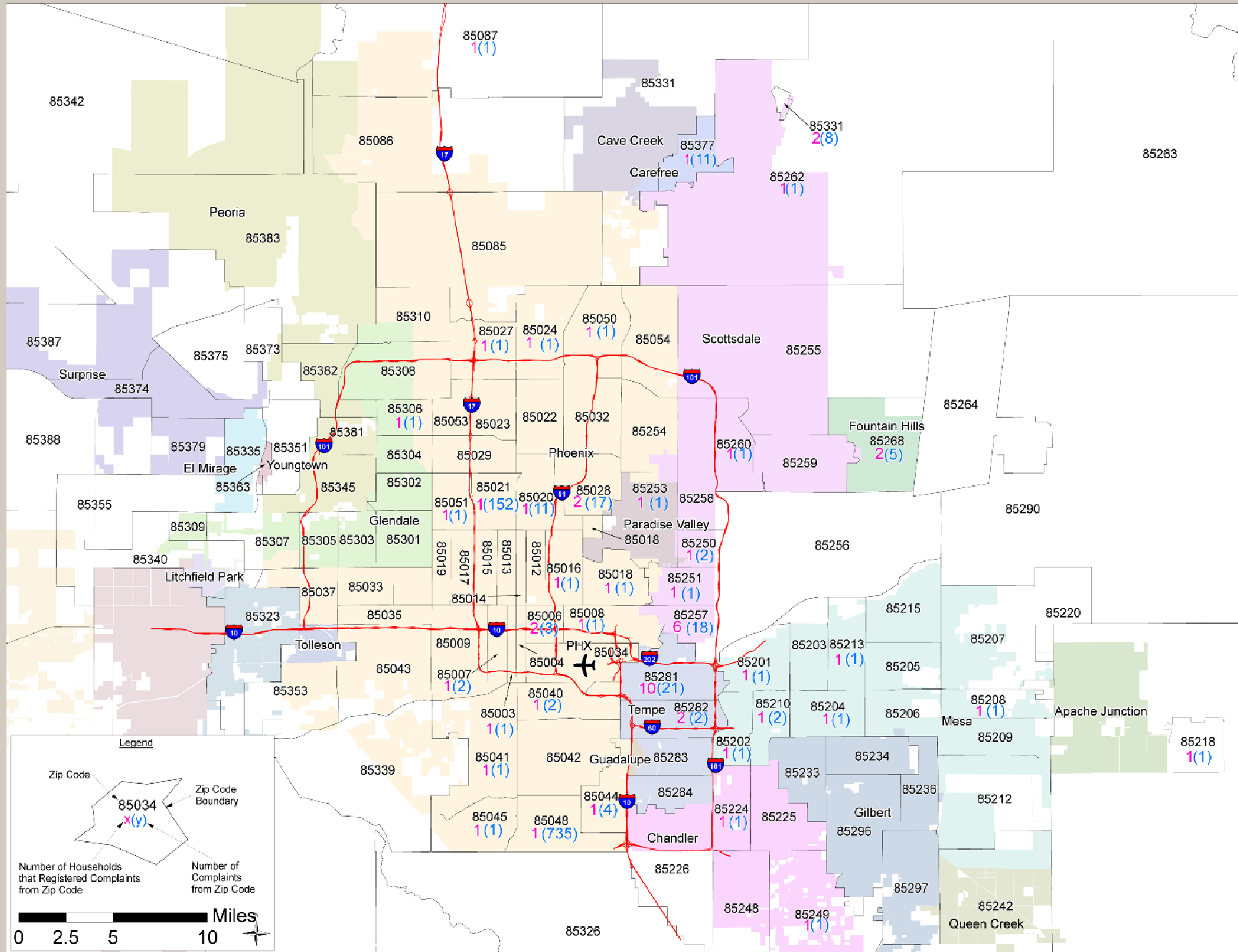
City	2006		2005		2004		2003		2002	
	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints
Anthem	0	0	1	1	0	0	0	0	0	0
Apache Junction	0	0	0	0	2	2	0	0	1	4
Carefree	1	11	1	683	1	2,026	5	1,671	24	3,879
Cave Creek	1	1	0	0	1	3	6	1,208	31	1,832
Chandler	2	2	2	4	2	2	4	8	1	1
Fountain Hills	2	5	1	3	3	3	4	12	12	59
Gilbert	0	0	3	6	6	18	4	11	4	6
Glendale	1	1	2	3	1	1	1	1	1	1
Gold Canyon	1	1	0	0	0	0	0	0	0	0
Maricopa County	0	0	0	0	2	10	6	38	9	28
Mesa	5	6	19	70	14	58	9	66	36	91
New River	1	1	0	0	1	2	1	10	2	4
Paradise Valley	2	2	0	0	1	3	3	3	8	18
Peoria	0	0	3	3	0	0	1	2	2	2
Phoenix	21	938*	29	549	27	1,327	52	3,207	79	5,152
Queen Creek	0	0	0	0	0	0	1	1	0	0
Rio Verde	0	0	0	0	1	1	2	2	5	5
Scottsdale	10	23	14	34	16	73	29	3,806	77	847
Sun City West	0	0	0	0	0	0	1	2	0	0
Surprise	0	0	0	0	0	0	1	1	0	0
Tempe	12	23	31	1,616	20	1,029	36	106	66	571
Unknown	0	0	0	0	1	1	0	0	3	12
<b>Totals:</b>	<b>59</b>	<b>1,014</b>	<b>106</b>	<b>2,972</b>	<b>99</b>	<b>4,559</b>	<b>166</b>	<b>10,155</b>	<b>361</b>	<b>12,512</b>

Notes:

\*1 Household made 729 Complaints from 85048; 1 Household made 151 Complaints from 85021

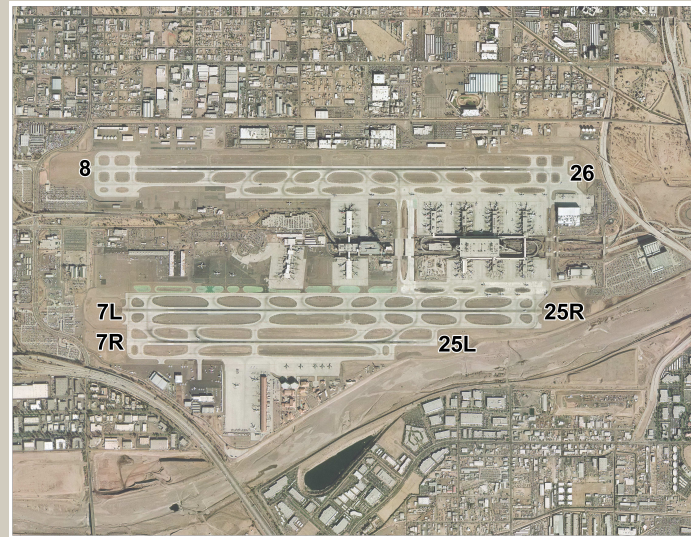


# Sky Harbor International Airport Noise Complaints by Zip Code



# Runway Utilization January- December 2006

		Easterly Departures (Over Tempe)				Westerly Departures (Over Phoenix)				
		8	7L	7R	Total 8,7L,7R	26	25L	25R	Total 26,25L,25R	
Departures	Daytime (07:00:00-21:59:59)	Daytime Departures	8,106	91,696	7,406	107,208	11,397	8,093	100,687	120,177
		% of Daytime Departures	7.56%	85.53%	6.91%	100%	9.48%	6.73%	83.78%	100%
	Nighttime (22:00:00-06:59:59)	Nighttime Departures	3,313	8,600	3,673	15,586	3,766	1,568	3,983	9,317
		% on Nighttime Departures	21.26%	55.18%	23.57%	100%	40.42%	16.83%	42.75%	100%
	All Hours	Total Departures	11,419	100,296	11,079	122,794	15,163	9,661	104,670	129,494
		% of Total Departures	9.30%	81.68%	9.02%	100%	11.71%	7.46%	80.83%	100%
	% of Total Directional Operations	<b>48.67%</b>				<b>51.33%</b>				



		Easterly Arrivals (Over Phoenix)				Westerly Arrivals (Over Tempe)				
		8	7L	7R	Total 8,7L,7R	26	25L	25R	Total 26,25L,25R	
Arrivals	Daytime (07:00:00-21:59:59)	Daytime Arrivals	58,840	6,420	37,743	103,003	69,151	43,918	13,484	126,553
		% of Daytime Arrivals	57.12%	6.23%	36.64%	100%	54.64%	34.70%	10.65%	100%
	Nighttime (22:00:00-06:59:59)	Nighttime Arrivals	4,451	4,344	3,113	11,908	3,268	2,570	5,504	11,342
		% on Nighttime Arrivals	37.38%	36.48%	26.14%	100%	28.81%	22.66%	48.53%	100%
	All Hours	Total Arrivals	63,291	10,764	40,856	114,911	72,419	46,488	18,988	137,895
		% of Total Arrivals	55.08%	9.37%	35.55%	100%	52.52%	33.71%	13.77%	100%
	% of Total Directional Operations	<b>45.45%</b>				<b>54.55%</b>				

Per a 1994 Intergovernmental Agreement between the cities of Phoenix and Tempe, the City of Phoenix encourages the FAA to distribute departure traffic equally over Phoenix and Tempe, weather and traffic permitting. This measurement is based on a 12-month period.

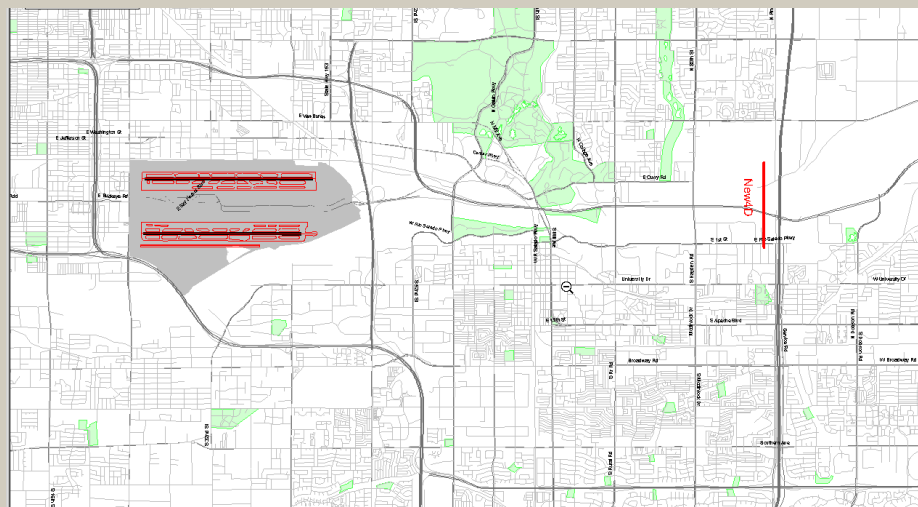


# 4DME Departure Compliance

Since the early 1980's, the City of Phoenix has taken measures to reduce the exposure of airport-area residents from aircraft noise. One such measure was the development and implementation of the 4-DME noise abatement departure procedure. Established in 1984 and formalized in 1994 through an Intergovernmental Agreement (IGA) between the cities of Phoenix and Tempe, the route directs jets departing to the east to travel approximately 5 miles from the airport (4-DME) before turning on any assigned heading. The IGA also requires the City of Phoenix to monitor procedure compliance. This is done through the creation of a gate located at the 4 DME turning point. The gate measures 5,550 feet long and runs 1,000 feet north of the north runway (RWY 8/26) to 1,000 feet south of the center runway (RWY 7L/25R).

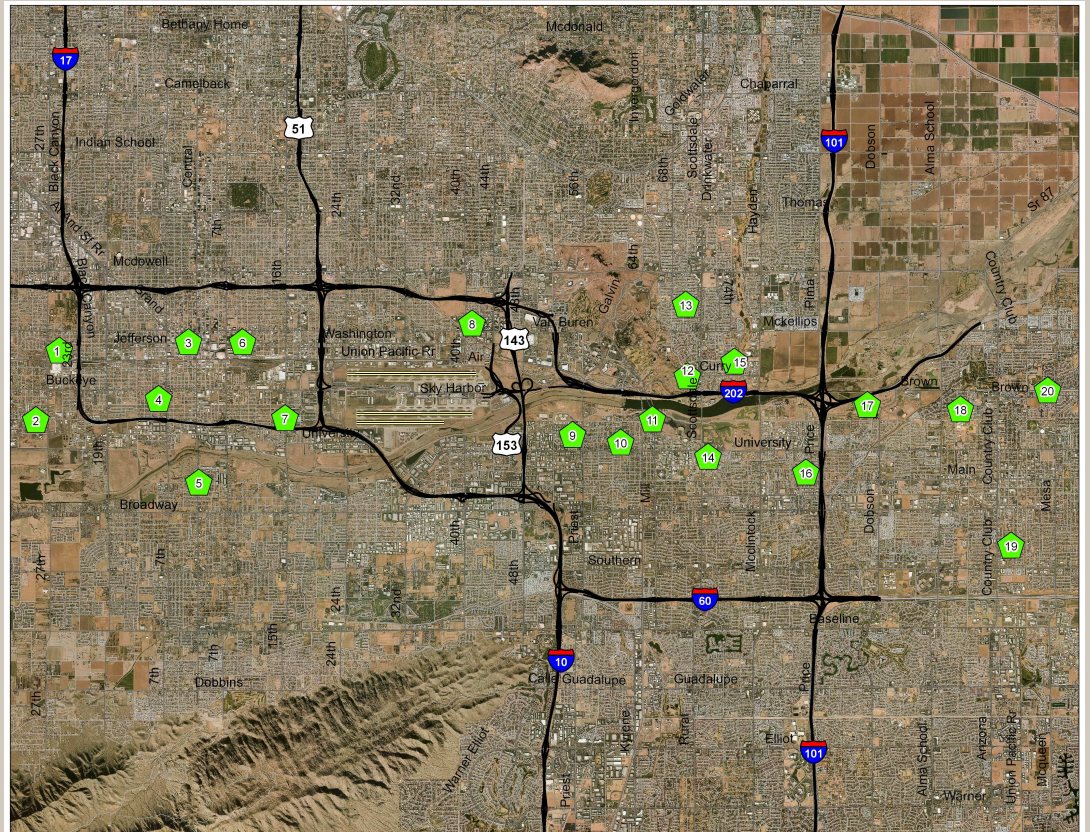
Air Carrier Code	Air Carrier Name	Deviations	Total Departures to the East	%Compliance
AAL	American Airlines	118	2,867	95.88
AAY	Allegiant Air Inc.	0	2	100.00
ABX	Airborne Express, Inc.	92	371	75.20
ACA	Air Canada	6	134	95.52
AMF	Ameriflight	62	234	73.50
AMT	American Trans Air, Inc.	3	180	98.33
AMX	Aeromexico	34	210	83.81
ASA	Alaska Airlines, Inc.	90	1,816	95.04
ATN	Air Transport International	0	3	100.00
ASH	USA Airways	579	13,861	95.82
AWE		638	30,186	97.89
USA		33	2,126	98.45
BAW	British Airways	4	36	88.89
BSK	Miami Air International	0	4	100.00
CCI	Capital Cargo International Airlines	3	24	87.50
CCP	Champion Air	1	9	88.89
CFG	Condor	0	1	100.00
CFJ	Fujian Airlines	0	1	100.00
COA	Continental Airlines	35	2,312	98.49
COM	Comair Inc.	0	1	100.00
DAL	Delta Airlines	45	2,306	98.05
DHL	DHL Air Cargo	6	55	89.09
EJA	Netjets Aviation Inc.	112	570	80.35
FDX	Federal Express	116	480	75.83
FFT	Frontier Airlines, Inc.	43	1,140	96.23
FIV	Citationshares	3	13	76.92
FWK	Flightworks, Inc.	0	1	100

Air Carrier Code	Air Carrier Name	Deviations	Total Departures to the East	%Compliance
GA	General Aviation	435	4,012	89.16
HAL	Hawaiian Airlines	8	293	97.27
JAL	Japan Airlines	0	1	100.00
JBU	Jetblue Airways	4	239	98.33
JNH	M & N Equipment	0	2	100.00
KFS	Kalitta Charters	2	2	0.00
KHA	Kitty Hawk Air Cargo	9	192	95.31
LXJ	Bombardier Aerospace	3	10	70.00
MEP	Midwest Airlines, Inc.	7	314	97.77
NWA	Northwest Orient Airlines, Inc.	59	1,935	96.95
OPT	Flight Options	63	241	73.86
PCE	Piedmont Aviation Services, Inc.	1	7	85.71
REA	Aer Arann	0	1	100.00
ROV	Rover Airways International	0	3	100.00
SCX	Sun Country Airlines	0	326	100.00
SKW	Sky West Aviation, Inc.	77	970	92.06
SWA	Southwest Airlines Co.	1,245	31,964	96.10
SWQ	Swift Air	3	21	85.71
TAG	Tag Aviation USA, Inc.	1	4	75.00
UAL	United Air Lines, Inc.	99	3,780	97.38
UPS	United Parcel Service	137	746	81.64
USA	USA Airways	33	2,126	98.45
USC	US Check Airlines	65	194	66.49
WJA	Westjet Airlines, LLC	0	95	100.00
WOA	World Airlines, Inc.	0	1	100.00
<b>Totals</b>		<b>4,241</b>	<b>104,296</b>	<b>95.93</b>



Noise monitoring sites (NMS) 1-8 are located in Phoenix, 9-16 in Tempe, and 17-20 in Mesa.

Noise Monitoring Site	2006 Annual DNL	2005 Annual DNL	2004 Annual DNL	2003 Annual DNL	2002 Annual DNL
NMS1	53.1	58.9	57.1	56.7	54.6
NMS2	57.3	61.9	59.7	58.8	59.7
NMS3	55.3	62.0	59.3	59.8	58.2
NMS4	63.7	61.6	61.8	61.9	61.3
NMS5	58.4	59.6	59.2	59.5	59.1
NMS6	51.1	56.4	54.1	57.7	54.8
NMS7	69.5	69.5	70.5	69.6	69.7
NMS8	48.8	56.9	54.2	56.2	55.7
NMS9	64.3	66.2	66.9	65.0	65.8
NMS10	57.6	63.3	62.7	61.7	62.4
NMS11	65.5	67.5	66.6	65.5	66.1
NMS12	63.0	65.0	64.1	64.7	64.7
NMS13	45.8	55.1	51.0	48.8	50.4
NMS14	50.1	60.0	55.7	55.9	57.2
NMS15	57.4	61.4	60.2	61.0	59.7
NMS16	48.9	56.8	53.6	50.8	52.2
NMS17	54.9	61.7	60.3	58.8	59.9
NMS18	52.6	59.3	58.0	57.1	57.1
NMS19	48.2	55.6	52.4	52.7	52.4
NMS20	49.0	56.0	52.5	49.5	50.0



Day-night average sound level (DNL) means the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time. The symbol for DNL is Ldn.





## Annual Operations

### Deer Valley Airport (DVT)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
2006	34,559	33,123	33,788	37,205	38,957	33,995	25,702	29,452	30,481	32,568	38,032	38,645	406,507
2005	29,862	29,344	32,480	28,661	30,991	30,925	28,640	33,516	32,255	35,833	32,592	32,742	377,841
2004	31,156	30,780	32,193	30,308	28,378	26,110	24,192	26,694	29,087	27,886	27,848	25,805	340,437
2003	32,957	28,627	37,247	34,100	33,204	28,926	29,633	30,138	35,686	38,390	32,604	27,797	389,309
2002	35,727	32,899	36,225	34,381	33,832	29,307	30,427	31,385	33,377	36,573	26,136	29,301	389,570
Average	32,852	30,955	34,387	32,931	33,072	29,853	27,719	30,237	32,177	34,250	31,442	30,858	

### Goodyear Airport (GYR)

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
2006	9,571	9,170	10,927	9,655	14,642	13,635	11,811	17,693	15,576	16,271	16,638	13,677	159,266
2005	6,815	7,455	9,941	9,558	8,194	8,083	7,164	8,506	8,478	9,931	8,429	8,492	101,046
2004	12,112	11,527	13,101	8,688	9,118	6,894	6,582	8,092	7,340	7,475	7,578	6,964	105,471
2003	11,198	9,919	14,042	14,059	10,457	10,393	8,416	9,532	10,042	12,729	9,115	12,779	132,681
2002	13,675	11,330	10,746	12,781	11,139	11,100	10,934	10,315	10,668	14,192	10,681	11,013	138,574
Average	10,674	9,880	11,751	10,948	10,710	10,021	8,981	10,828	10,421	12,120	10,488	10,585	

## Noise Complaints

	Jan		Feb		Mar		Apr.		May		Jun.	
	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints
DVT	2	3	4	73	6	111	9	59	5	11	3	12
GYR	1	2	0	0	5	8	2	3	3	7	9	12

	Jul.		Aug.		Sept.		Oct.		Nov.		Dec.	
	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints	Households	Complaints
DVT	12	27	4	5	5	14	2	5	8	11	3	4
GYR	2	2	2	6	5	5	10	10	1	1	1	1

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