

Noise Abatement Subcommittee Review of Noise Complaint Activity

APRIL 30, 2019

Madison, Wisconsin



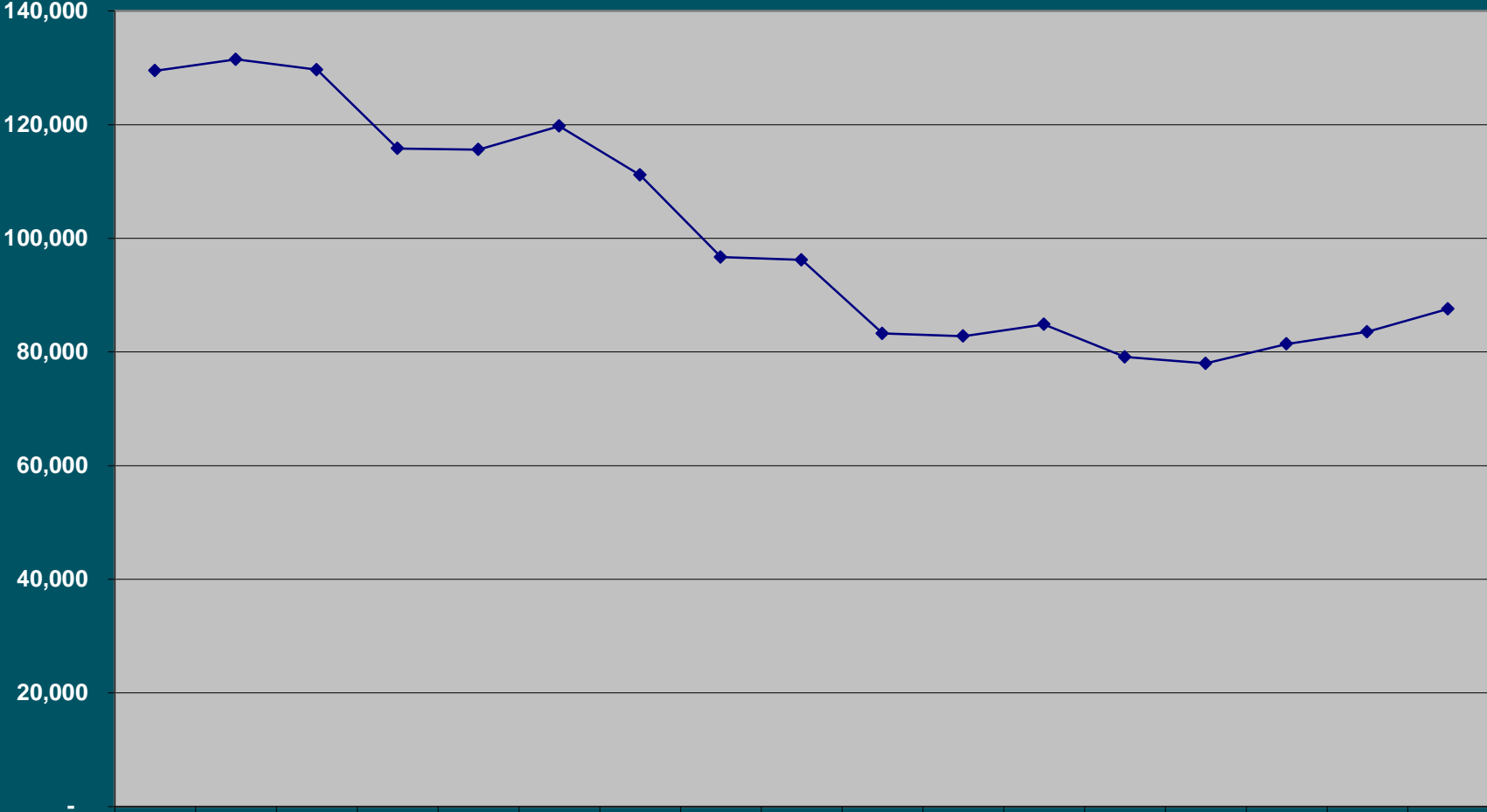
AIRCRAFT MOVEMENTS

OCT 18 – MAR 19

Aircraft Movements	OCT 18 – MAR 19	OCT 17 – MAR 18	% Change
<i>Air Carrier</i>	17,524	15,028	17%
<i>Military</i>	2,490	1,898	25%
<i>General Aviation</i>	19,029	21,940	-13%
<i>Total Movements</i>	39,043	38,940	0%

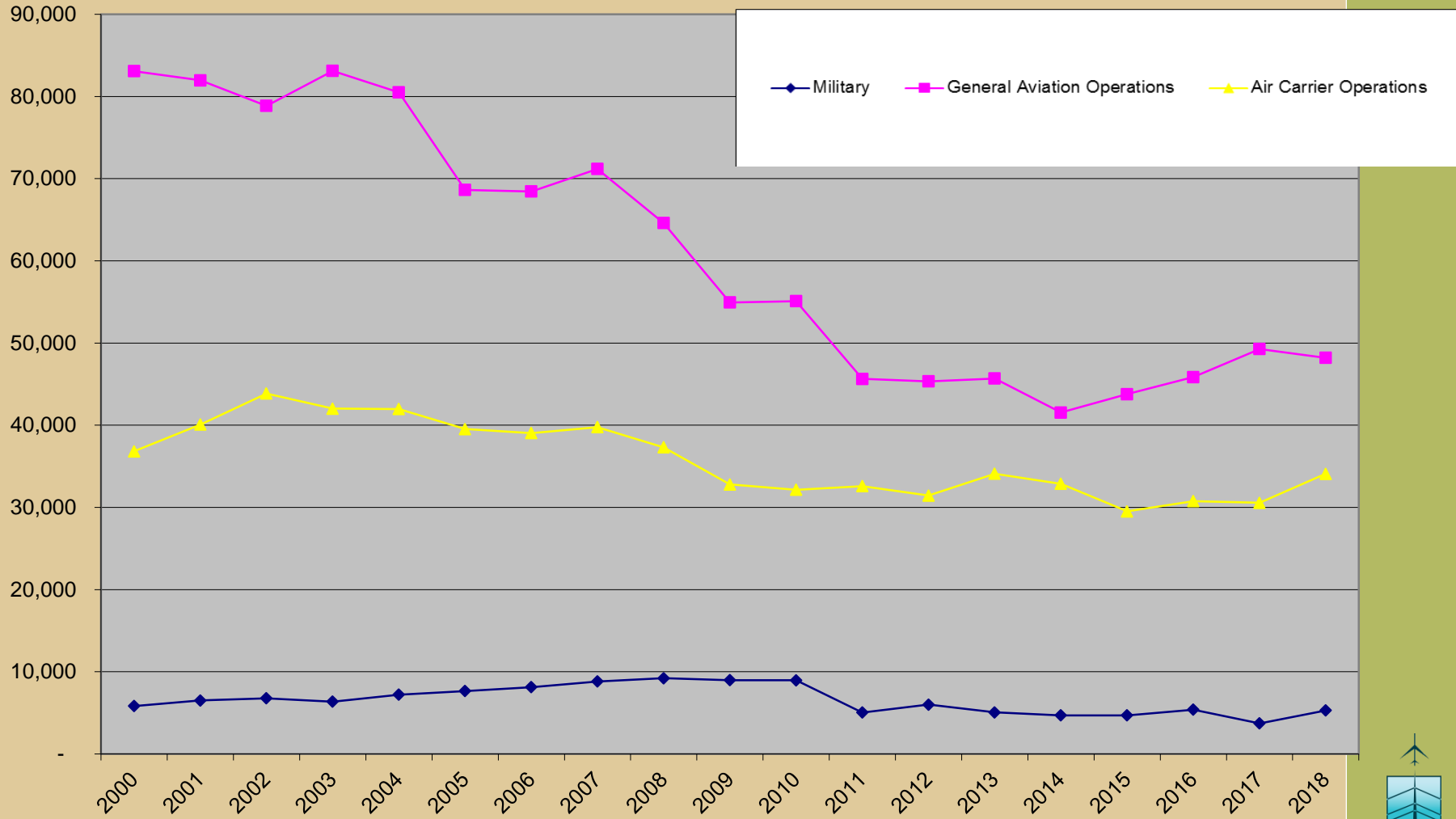


Aircraft Operations



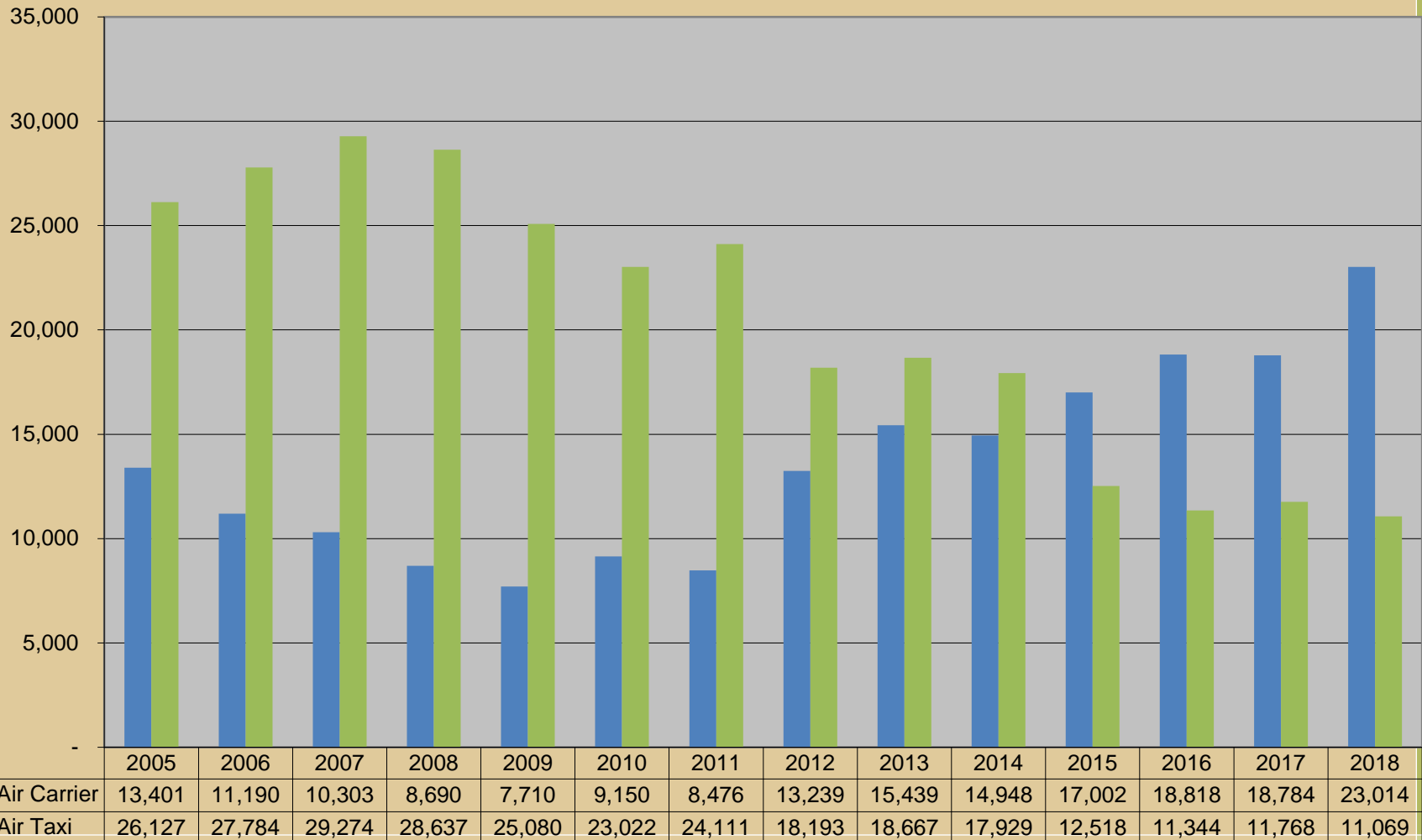
—◆ Aircraft Operations	129,49	131,49	129,67	115,81	115,61	119,76	111,13	96,700	96,205	83,263	82,777	84,860	79,116	77,996	81,403	83,539	87,578
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Historical Aircraft Operations by Type



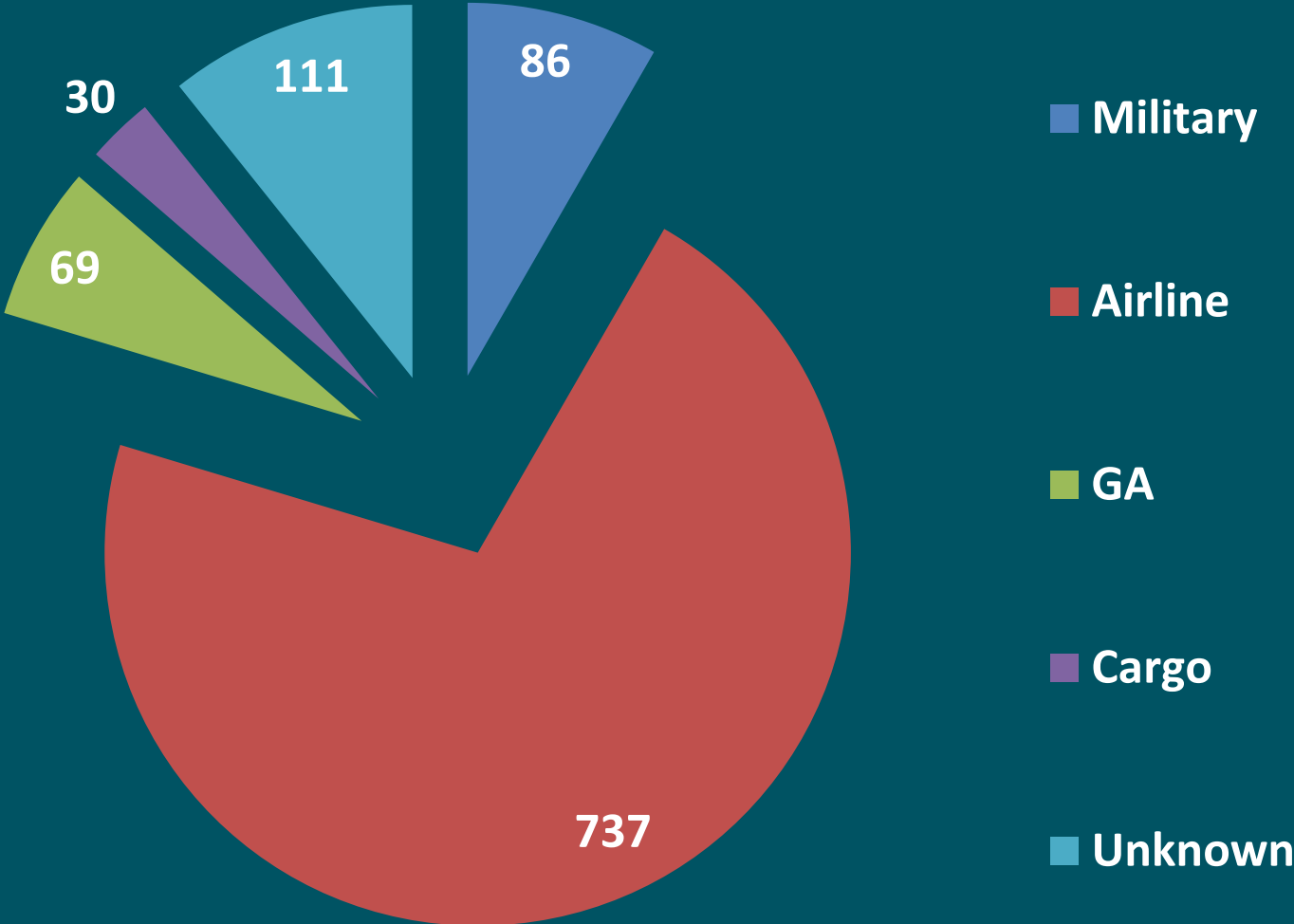
Air Carrier (A-320, B717) vs Air Taxi (CRJ, ERJ)

AC aircraft have 60 or more seats
 AT aircraft have 59 seats or less



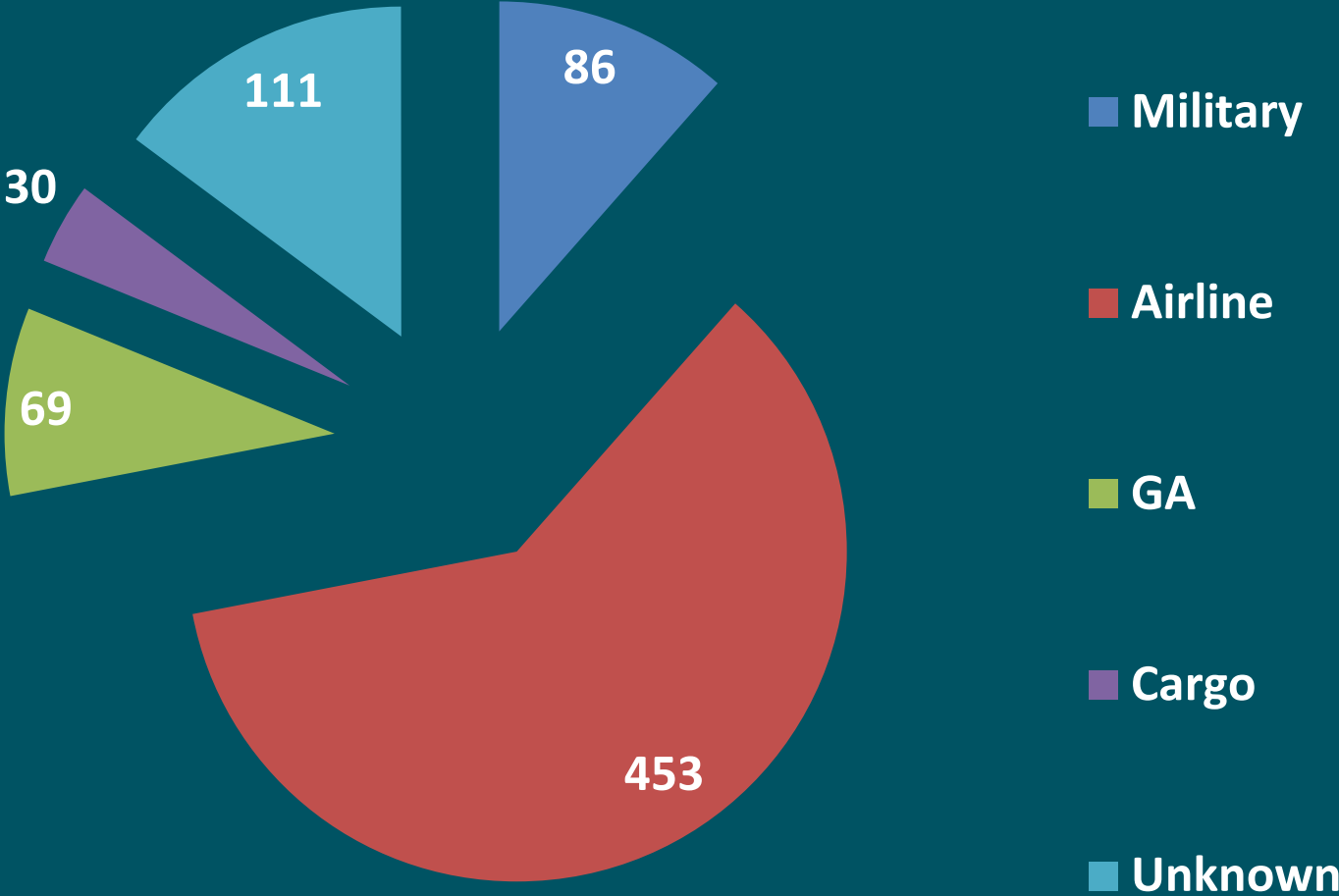
Complaints by Aircraft Type

OCT 18 – MAR 19



Complaints by Aircraft Type, revised

OCT 18 – MAR 19

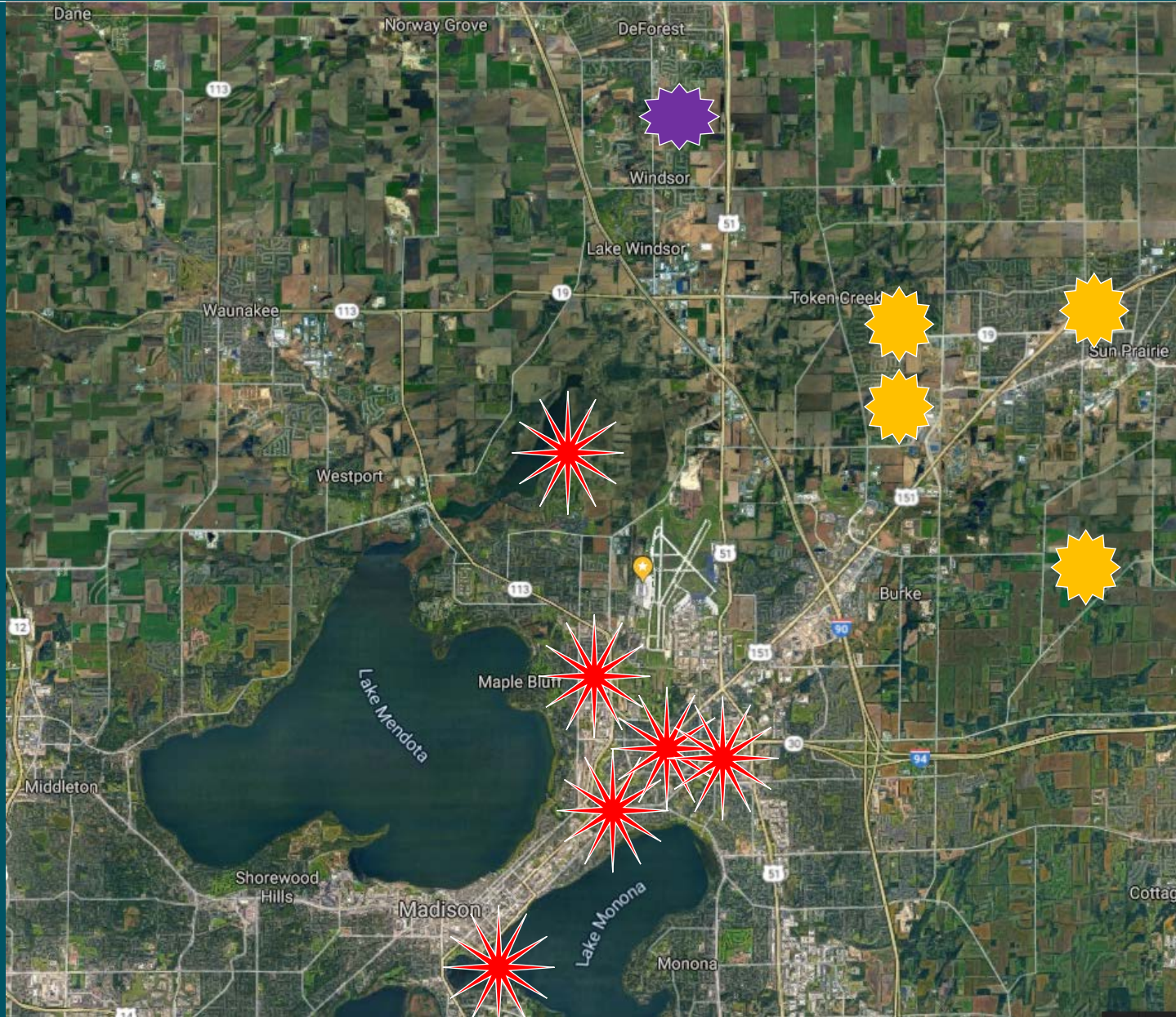


COMPLAINTS BY AREA

Area	OCT 18 – MAR 19		OCT 17 – MAR 18	
	Complaints	Households	Complaints	Households
<i>DeForest</i>	459	1	569	1
<i>Madison</i>	533	18	105	22
<i>Sun Prairie</i>	39	4	4	3
<i>Oregon</i>	2	1	0	0
<i>Total</i>	1033	24	681	26

COMPLAINT LOCATIONS

OCT 18 – MAR 19



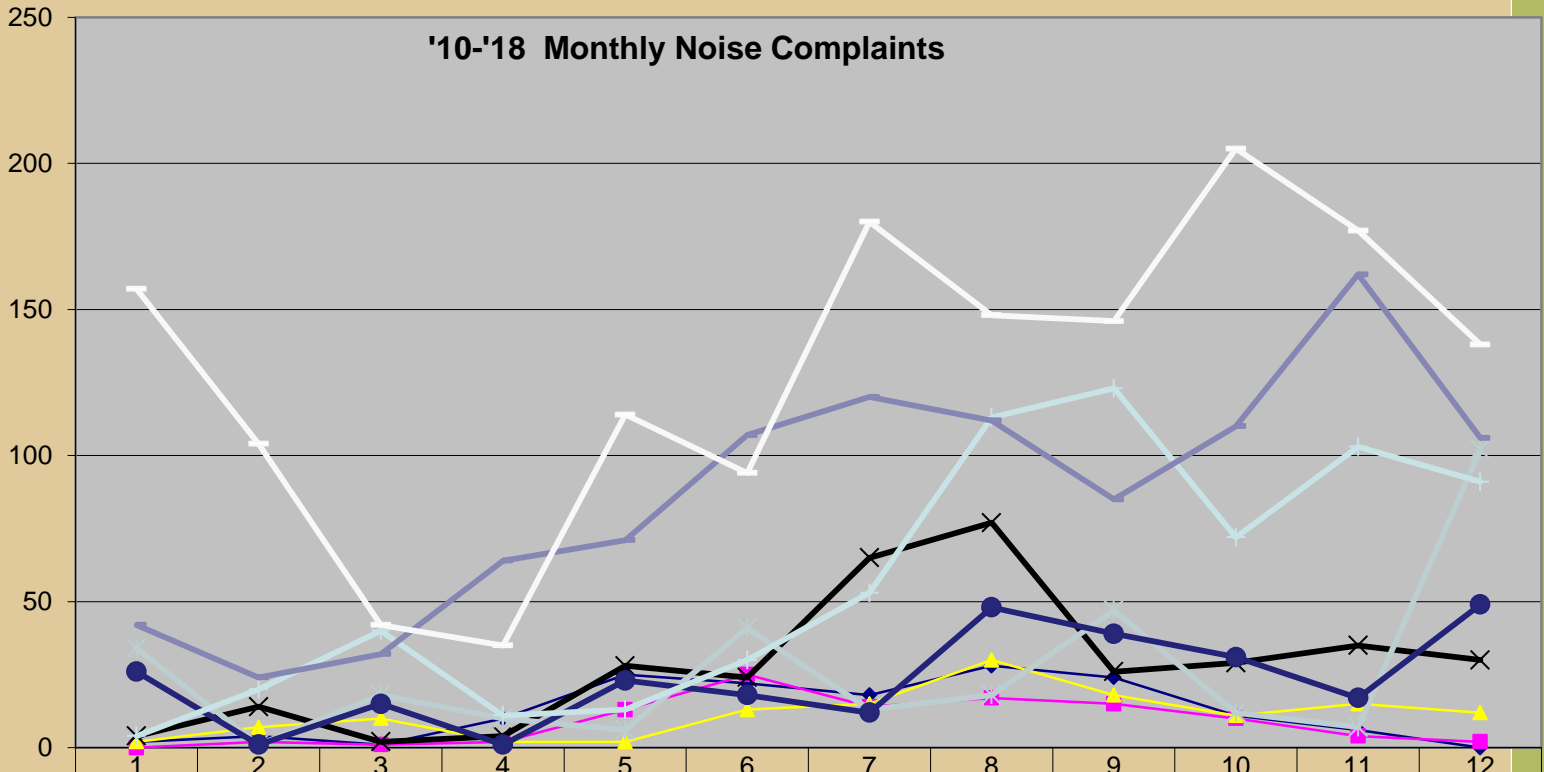
NOISE COMPLAINT CALLS

OCT 18 – MAR 19

	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
DAY	100	80	65	92	57	138	532
NIGHT	105	97	73	164	23	39	501
TOTAL	205	177	138	256	80	177	1033



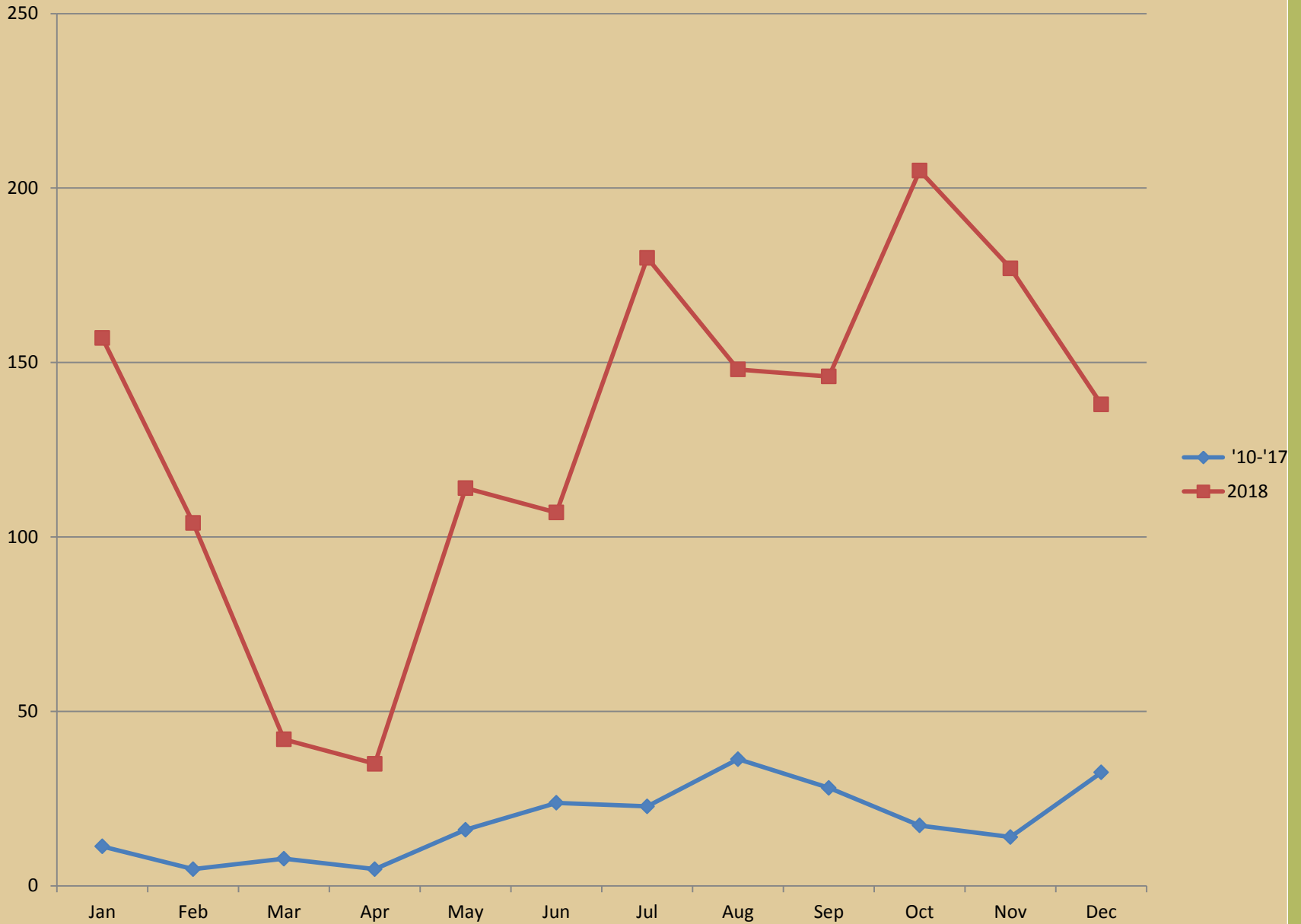
2010 - 2018 Noise Complaint History



Number of Complaints

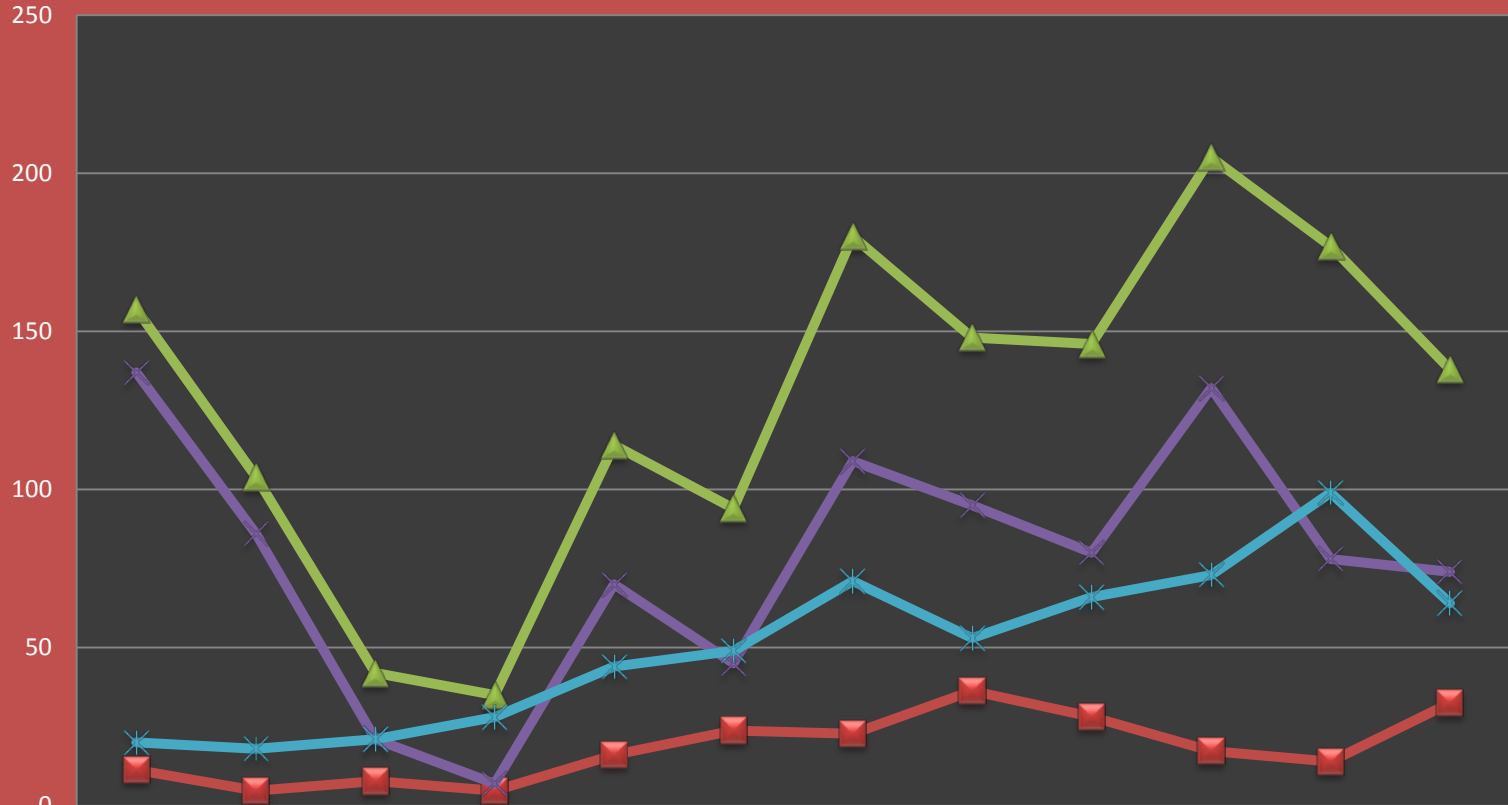
	1	2	3	4	5	6	7	8	9	10	11	12
◆ 2010 (Total 151)	2	4	1	10	25	22	18	28	24	11	6	0
■ 2011 (Total 105)	0	2	1	2	13	25	14	17	15	10	4	2
▲ 2012 (Total 137)	2	7	10	2	2	13	15	30	18	11	15	12
✕ 2013 (Total 338)	4	14	2	4	28	24	65	77	26	29	35	30
◆ 2014 (Total 309)	34	1	18	10	6	41	13	18	47	12	7	102
● 2015 (Total 280)	26	1	15	1	23	18	12	48	39	31	17	49
◆ 2016 (Total 673)	4	20	40	11	13	30	53	113	123	72	103	91
■ 2017 (Total 1035)	42	24	32	64	71	107	120	112	85	110	162	106
— 2018 (Total 1540)	157	104	42	35	114	94	180	148	146	205	177	138

Noise Complaint History



Noise Complaint History

Average Monthly Noise Complaints '10-'17 Average vs 2018



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
■ Avg '10-'17	11.3	4.8	7.8	4.8	16.1	23.8	22.8	36.3	28.1	17.3	14	32.5
▲ 2018	157	104	42	35	114	94	180	148	146	205	177	138
✕ Single Person	137	86	21	7	70	45	109	95	80	132	78	74
* Rest	20	18	21	28	44	49	71	53	66	73	99	64



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
OCT		M U	U U	M					C C C	M M M U U C		C	M C	C	M	C M		C				M	M	U M					MU C	M	C
NOV	HH AA AA AA A	A A A	A U	U	A U	M G U				U	U U U		M	U	M U	G M U			U	U U	M U A					M		GU UM	MM U	A U M	
DEC		A	M M U		U	G G G			U U U	U	U	U	U U U					M M M M M	UM UM MU U	M	M U		U			U	U	MU M		U	
JAN		M M U U	M U	M	M M U				M M U		U	U		U U	M M U	M	M U			U						U					
FEB			U	U U U U						AU			U M						UM U	U	M M U	M					UM	U			
MAR	M M	M U M	M U	U	M M M M U	U M U						M	U	M U U			A	M	AM MU MU	U	A M U M		A		M	M M U M U	M M U M	A M			

A = Airline; G = General Aviation; H = Military Helicopter; M = Military Fixed Wing; U = Unknown

Wisconsin Wind Data*

*National Weather Service

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Month	Prevailing Wind	Greater than 5 kts
Jan	WNW – 11.5	94.0%
Feb	WNW – 12	93.4%
Mar	NW – 13	93.9%
Apr	S – 11.4	93.6%
May	S – 10.4	93.0%
Jun	S – 9.7	91.6%
Jul	S – 9.2	90.1%
Aug	S – 9.1	88.9%
Sep	S – 9.8	90.1%
Oct	S – 10.4	92.2%
Nov	S – 10.7	94.3%
Dec	WNW – 12.4	94.0%
Annual	S – 12.4	92.4%

NOISE ABATEMENT COMPLIANCE AUDIT

WEATHER / RUNWAY DATA	
WINDS AT 5 KNOTS OR HIGHER ¹	83.66%
VISIBILITY AT 5 STATUTE MILES OR LESS	6.98%
RUNWAYS CLOSED ²	18/36 = 50:50 3/21 = 210.50 14/32 = 277.75
¹ – Based on METAR weather observations at the time of recorded aircraft operations. ² – Runway closures primarily due to snow and ice control procedures	

NOISE ABATEMENT COMPLIANCE AUDIT

RUNWAY USE	
Aircraft observed departing to the North	44.52%
Aircraft observed arriving from the North	40.51%
Aircraft observed departing to the South	59.83%
Aircraft observed arriving from the South	55.14%

PASSUR FLIGHT TRACKING	
3,556 operations recorded by Passur flight monitoring system	

NOISE ABATEMENT COMPLIANCE AUDIT

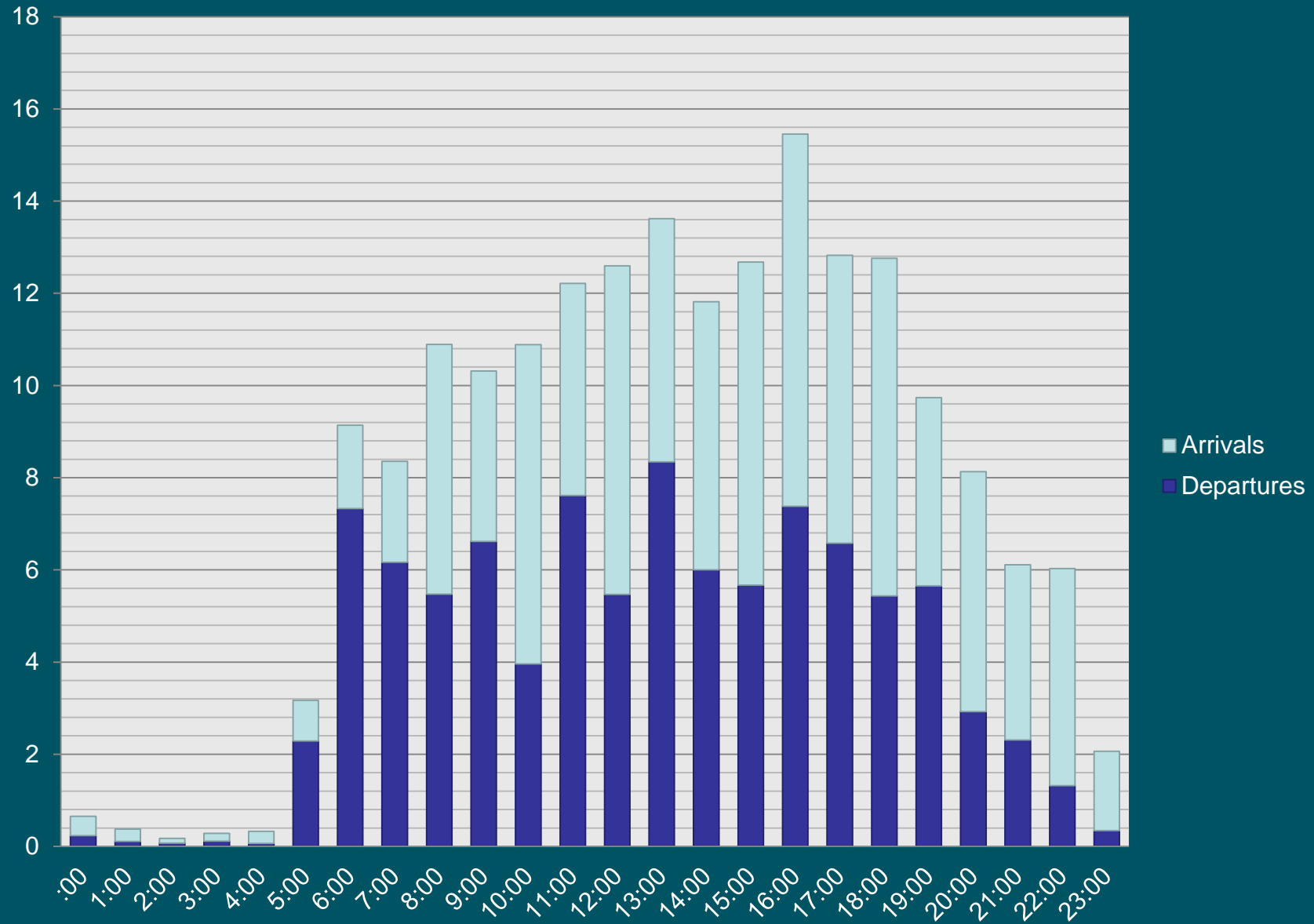
**** With 100% compliance of Noise Abatement Procedures, there are times aircraft are required depart to the south and arrive from the south. ****

RUNWAY USE FACTORS			
	Wind	Visibility	Ceiling
South Departure	78.22%	16.25%	0.00%
South Arrival	76.34%	8.81%	27.17%

**** Safety, traffic, airline requirements, and weather are all components which are factored into a pilot's decision when landing and taking off. ****

AVERAGE HOURLY OPERATIONS

OCT 18 – MAR 19



CONTACT INFORMATION

24 Hour Aircraft Noise Line: **246-5841**

Online Form: <http://www.msnaairport.com/community/noise.aspx>

Madison Automated Weather: **249-0615**

