2018 ANNUAL MSP FLEET MIX AND NIGHTTIME OPERATIONS REPORT

JANUARY 2019

NOISE PROGRAM OFFICE

METROPOLITAN AIRPORTS COMMISSION
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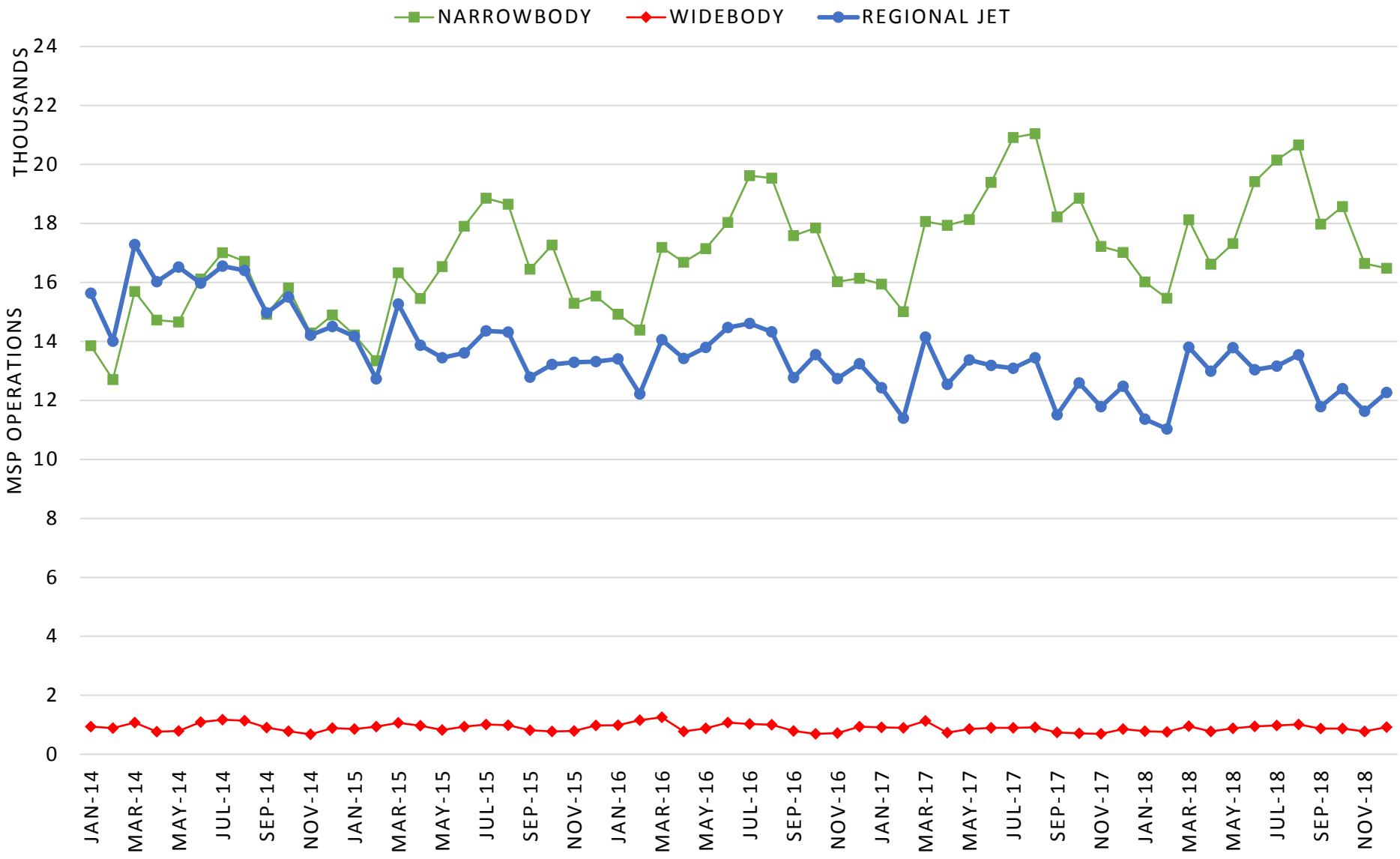
MONTHLY CARRIER JET COUNTS BY TYPE



HUSHKIT BY YEAR: 2014 - 37, 2015 - 26, 2016 - 48, 2017 - 26, 2018 - 32

WIDEBODY JET ACTIVITY

	TYPE	2014	2015	2016	2017	2018
WIDEBODY	A124	0.00%	0.00%	0.00%	0.00%	0.00%
	A225	0.00%	0.00%	0.00%	0.00%	0.00%
	A300	0.07%	0.07%	0.03%	0.03%	0.15%
	A310	0.01%	0.02%	0.00%	0.00%	0.00%
	A330	0.69%	0.73%	0.68%	0.80%	0.72%
	A340	0.05%	0.07%	0.06%	0.07%	0.04%
	A350	0.00%	0.00%	0.00%	0.00%	0.00%
	A380	0.00%	0.00%	0.00%	0.00%	0.00%
	B742	0.00%	0.00%	0.00%	0.00%	0.00%
	B744	0.08%	0.03%	0.01%	0.01%	0.02%
	B748	0.00%	0.00%	0.00%	0.00%	0.00%
	B762	0.14%	0.14%	0.14%	0.15%	0.04%
	B763	0.84%	0.74%	0.90%	0.50%	0.79%
	B764	0.21%	0.22%	0.24%	0.01%	0.01%
	B767	0.00%	0.00%	0.00%	0.00%	0.00%
	B777	0.10%	0.17%	0.18%	0.38%	0.40%
	B7878	0.00%	0.00%	0.00%	0.01%	0.04%
	DC10	0.19%	0.24%	0.13%	0.27%	0.24%
	MD11	0.55%	0.51%	0.61%	0.46%	0.34%
	TOTAL	**2.92%**	**2.95%**	**2.98%**	**2.70%**	**2.81%**

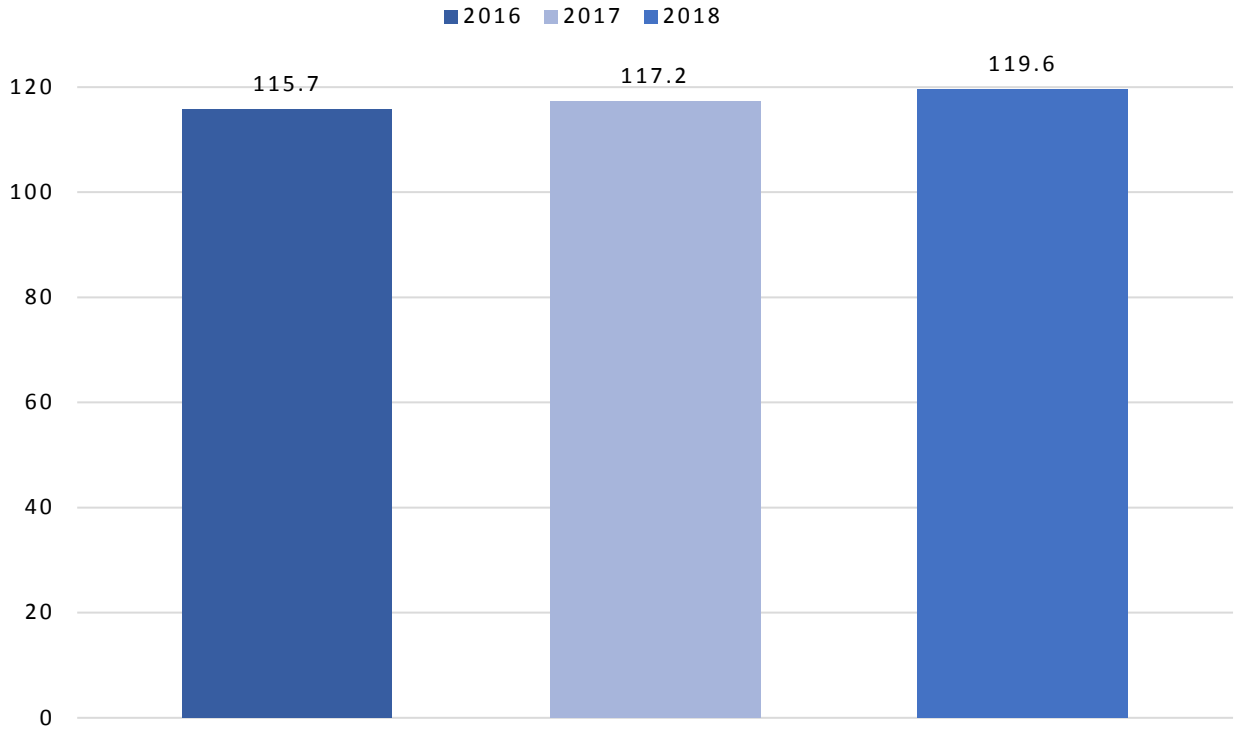
NARROWBODY JET ACTIVITY

	TYPE	2014	2015	2016	2017	2018
NARROWBODY	A319	7.53%	7.89%	7.20%	6.74%	6.38%
	A320	9.63%	9.04%	9.90%	7.10%	6.56%
	A320neo	0.00%	0.00%	0.03%	0.24%	0.37%
	A321	0.72%	0.84%	0.46%	0.53%	2.16%
	B717	0.59%	1.49%	2.36%	5.25%	5.86%
	B72Q	0.00%	0.00%	0.00%	0.00%	0.00%
	B733	0.76%	0.86%	0.67%	0.35%	0.01%
	B734	0.04%	0.03%	0.03%	0.03%	0.05%
	B735	0.00%	0.00%	0.00%	0.00%	0.00%
	B7377	5.03%	4.84%	4.84%	5.04%	4.65%
	B738	5.63%	6.78%	7.82%	9.77%	10.12%
	B739	0.78%	2.81%	3.78%	5.04%	7.47%
	B38M	0.00%	0.00%	0.00%	0.00%	0.08%
	B73Q	0.00%	0.00%	0.01%	0.00%	0.00%
	B757	6.49%	6.40%	5.81%	5.90%	6.08%
	DC8Q	0.00%	0.00%	0.00%	0.00%	0.00%
	DC9Q	0.00%	0.00%	0.00%	0.00%	0.00%
	MD80	3.72%	3.52%	3.59%	2.47%	0.29%
	MD90	6.80%	8.27%	7.62%	8.84%	6.85%
	TOTAL	**47.72%**	**52.77%**	**54.11%**	**57.31%**	**56.95%**

REGIONAL JET ACTIVITY

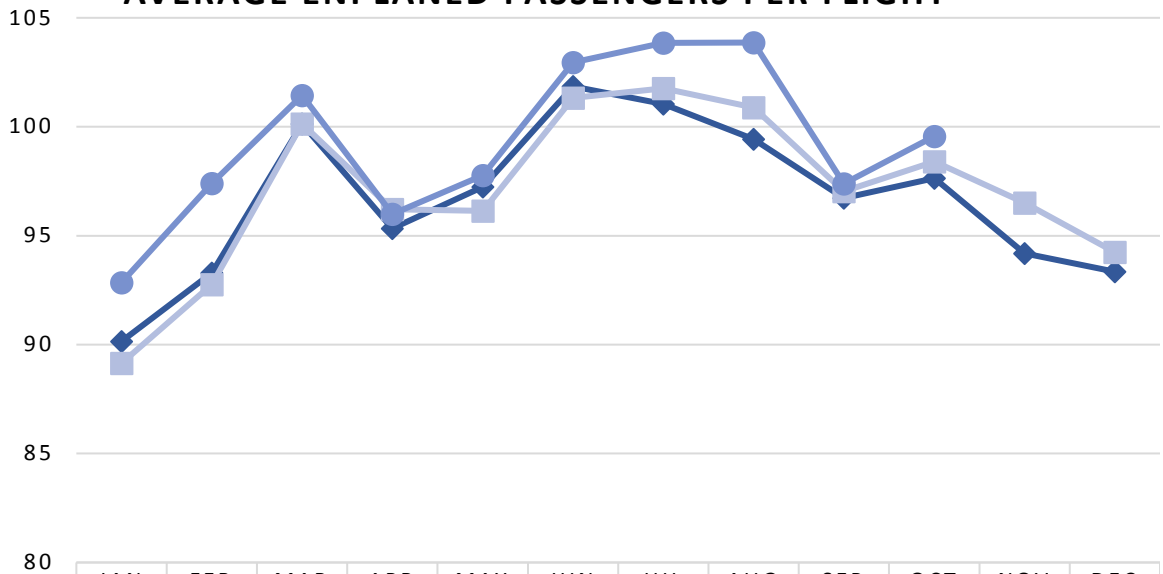
	TYPE	2014	2015	2016	2017	2018
REGIONAL JET	BA46	0.00%	0.00%	0.00%	0.00%	0.00%
	CRJ	0.00%	0.00%	0.00%	0.00%	0.00%
	CRJ1	0.10%	0.00%	0.13%	0.06%	0.00%
	CRJ2	21.24%	17.24%	17.16%	16.18%	14.35%
	CRJ7	4.24%	3.40%	2.75%	4.83%	7.03%
	CRJ9	11.00%	14.73%	13.72%	11.31%	13.00%
	E135	0.01%	0.02%	0.04%	0.03%	0.03%
	E145	1.85%	1.24%	0.21%	0.06%	0.03%
	E170	10.64%	7.39%	8.68%	7.05%	5.52%
	E175	0.00%	0.00%	0.00%	0.00%	0.00%
	E190	0.23%	0.25%	0.20%	0.47%	0.27%
	J328	0.03%	0.02%	0.01%	0.01%	0.01%
	TOTAL	**49.35%**	**44.29%**	**42.90%**	**39.99%**	**40.24%**

AVERAGE SEATS PER FLIGHT



SOURCE: OAG

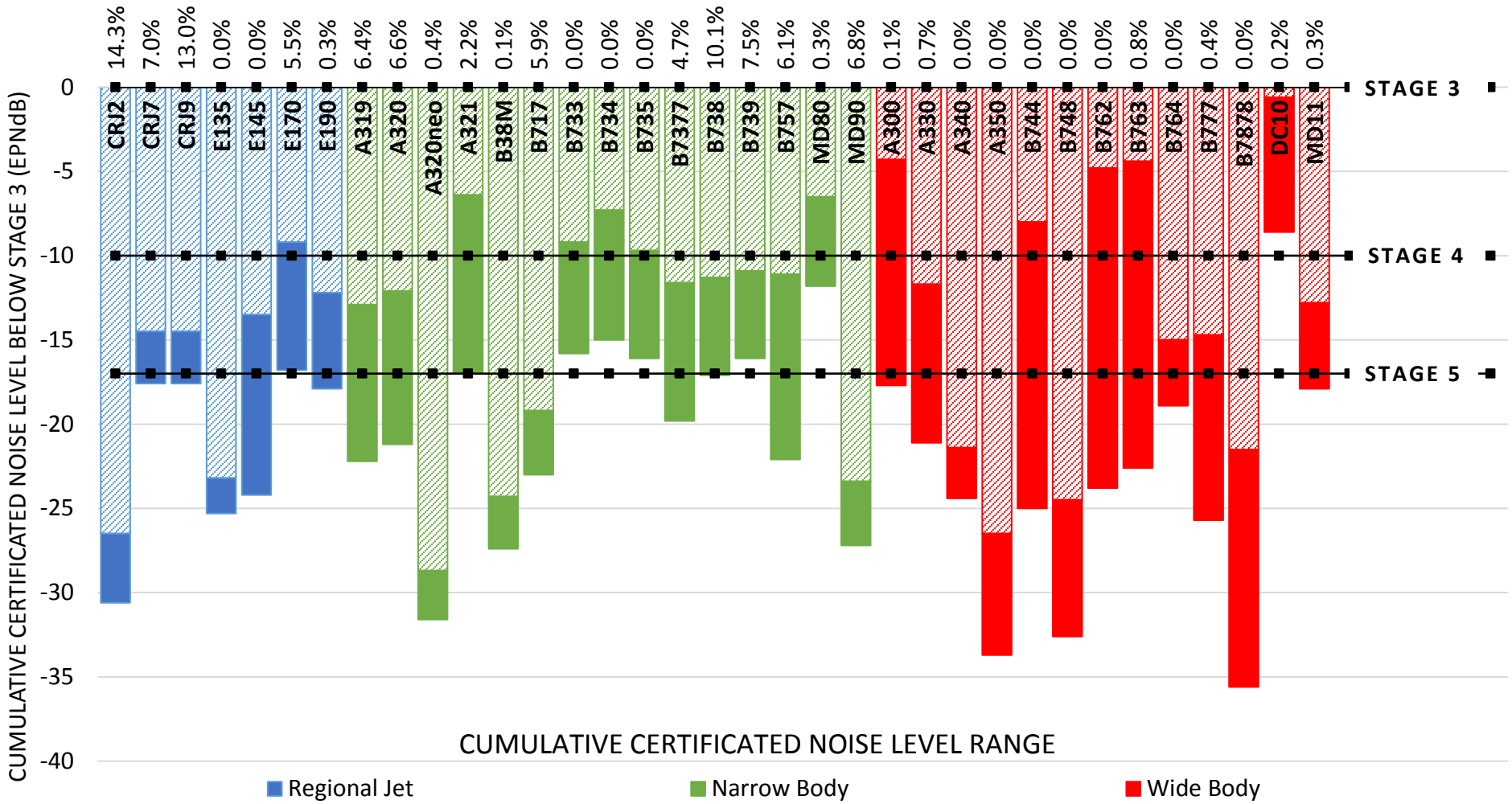
AVERAGE ENPLANED PASSENGERS PER FLIGHT



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2016	90.1	93.3	100.1	95.3	97.2	101.8	101.1	99.4	96.7	97.6	94.2	93.3
2017	89.1	92.8	100.1	96.2	96.1	101.3	101.8	100.9	97.0	98.4	96.5	94.2
2018	92.8	97.4	101.4	96.0	97.8	103.0	103.8	103.9	97.4	99.6		

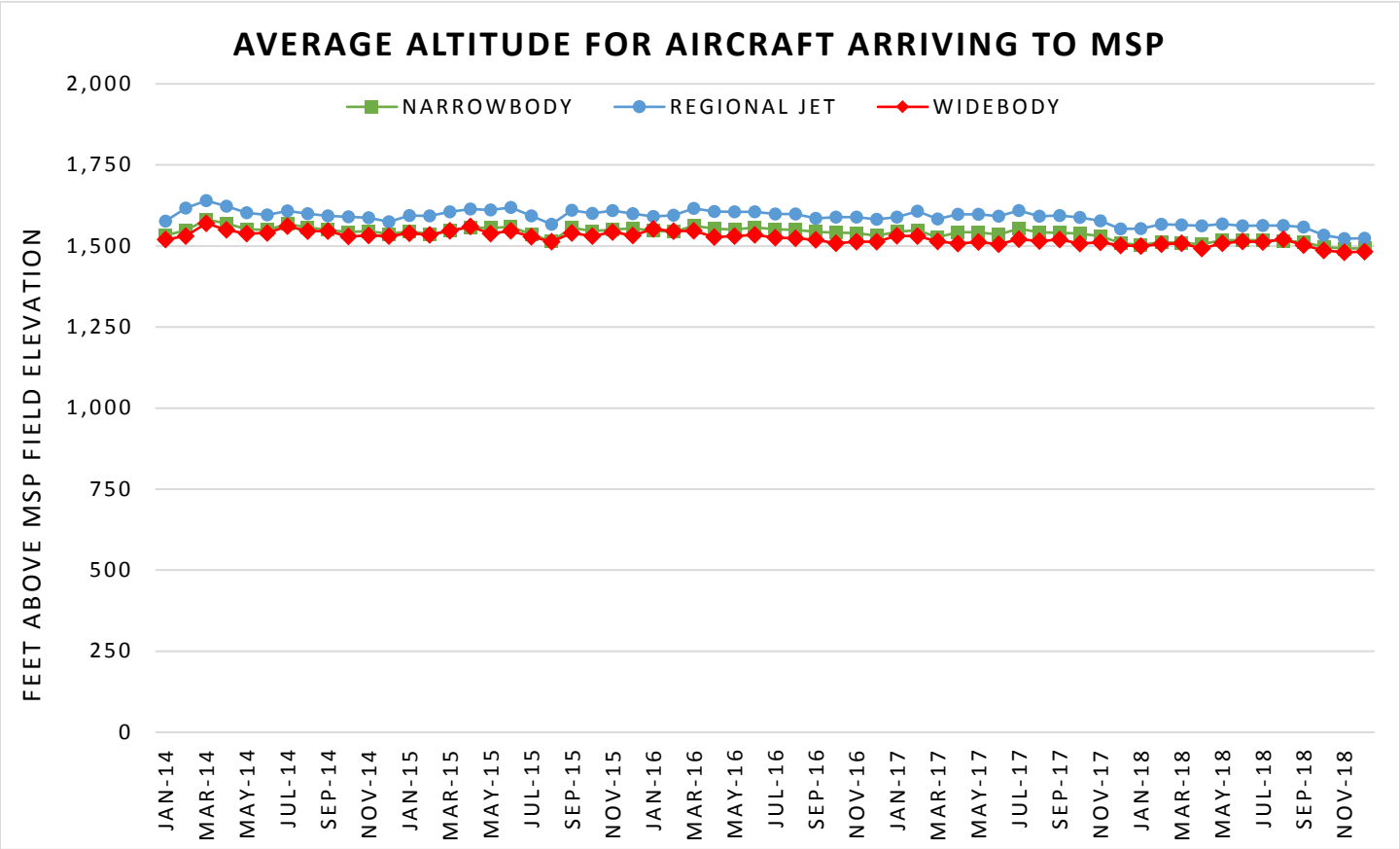
SOURCE: MSP MONTHLY OPERATIONS REPORTS
NOVEMBER AND DECEMBER 2018 DATA WERE UNAVAILABLE AT THE TIME OF THIS REPORT

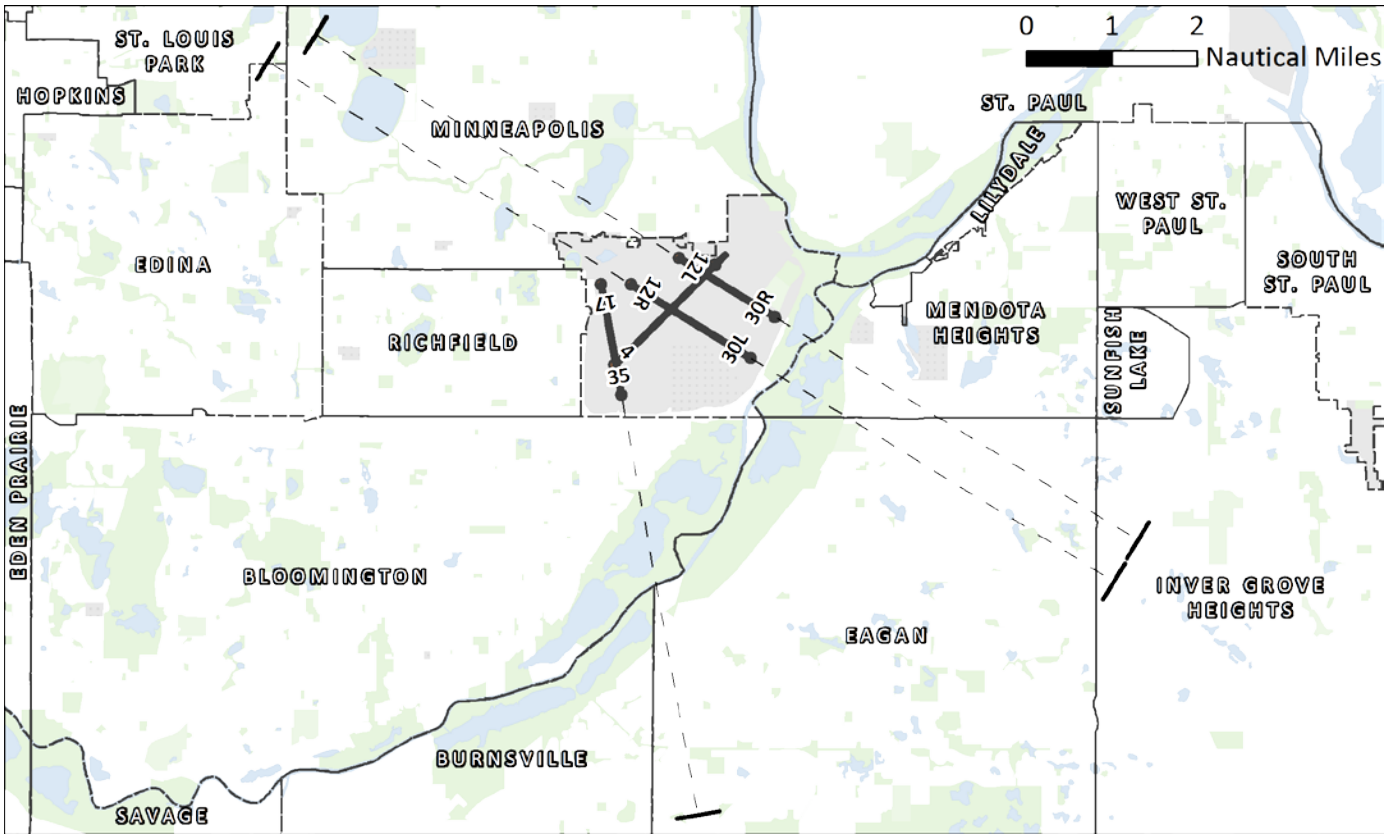
2018 MSP CARRIER JET USAGE WITH CUMULATIVE CERTIFICATED NOISE LEVELS



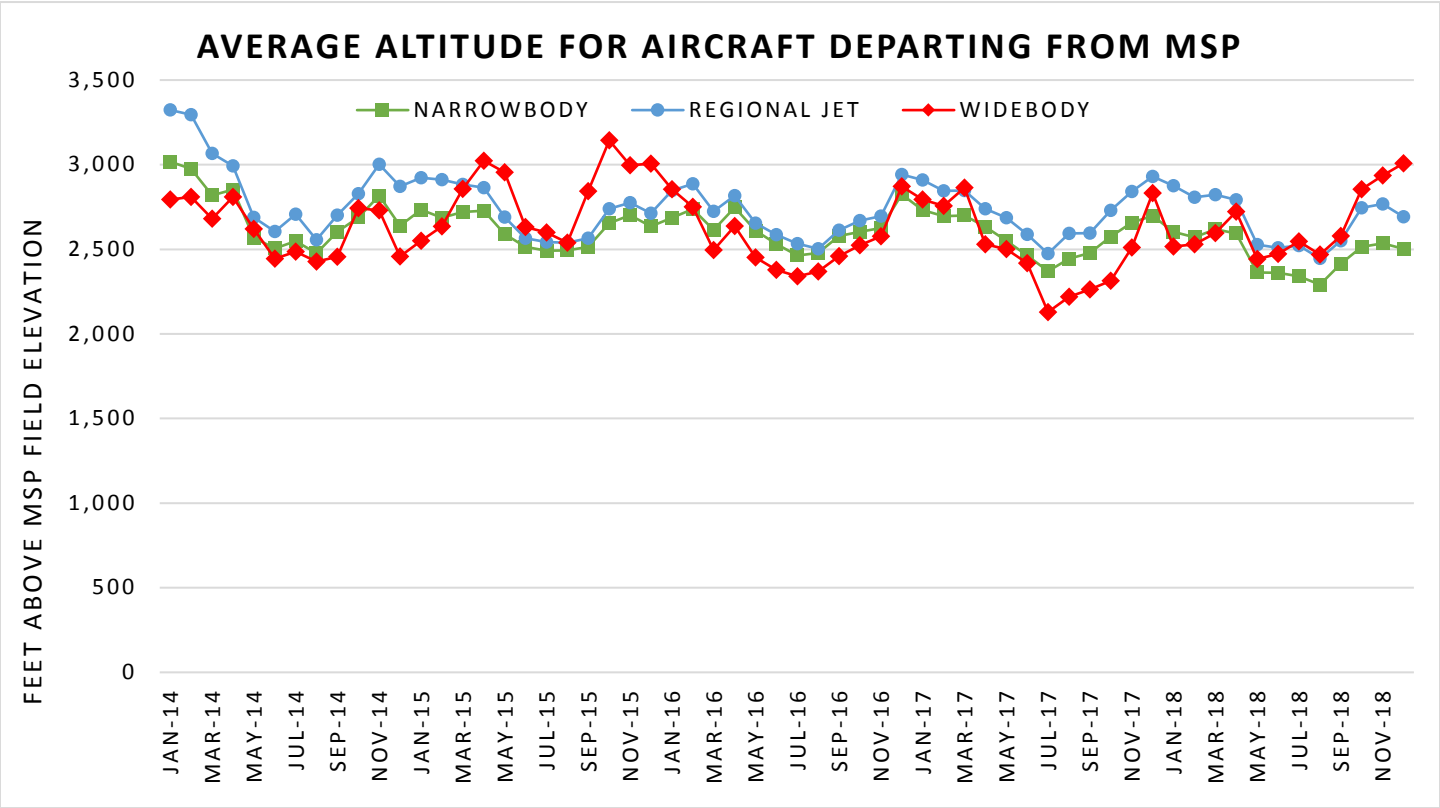
SOURCE: USAGE DATA: MACNOMS; NOISE CERTIFICATION DATA: EUROPEAN AVIATION SAFETY AGENCY

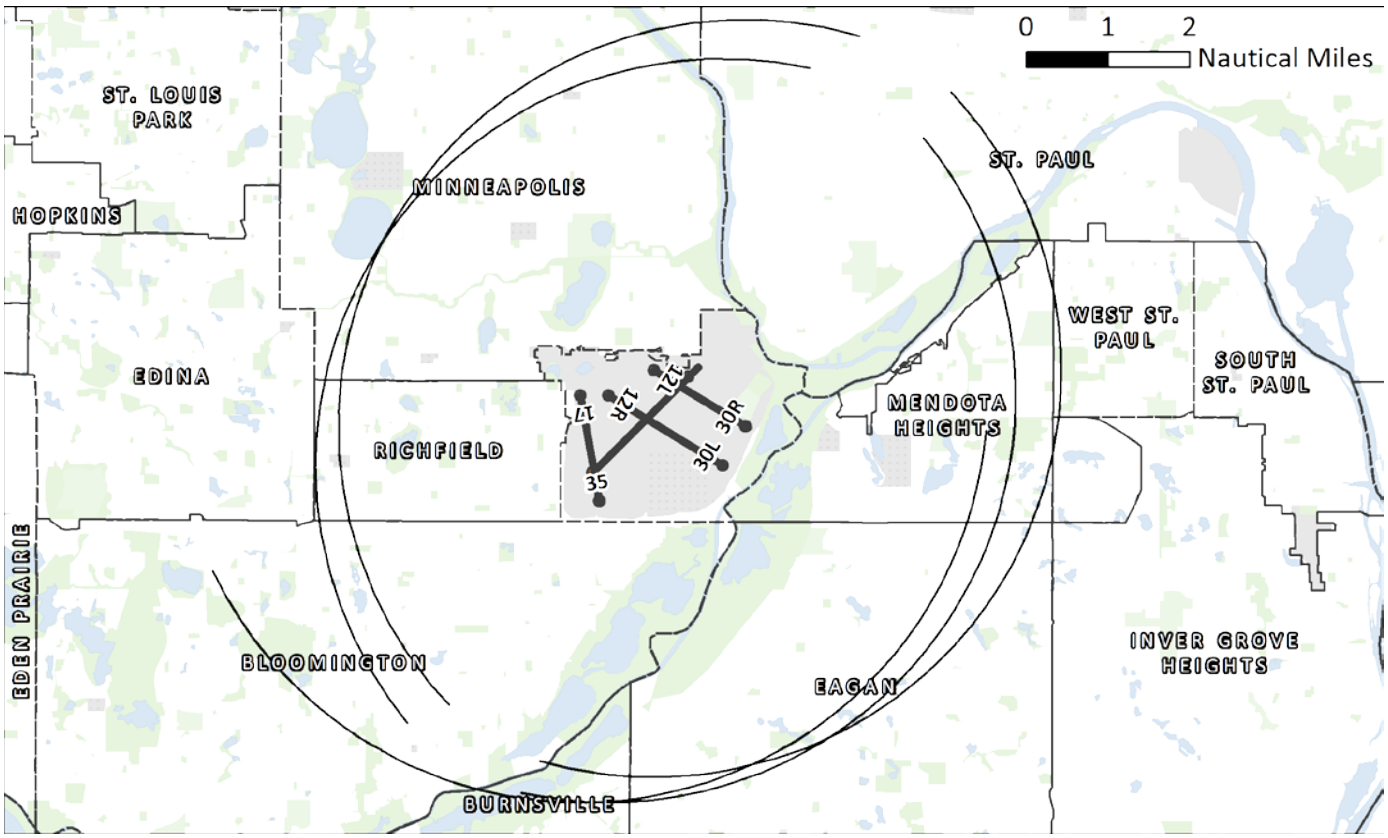
CUMULATIVE CERTIFICATED NOISE LEVELS REPRESENTED AS A RANGE TO ACCOUNT FOR MULTIPLE CERTIFICATION VARIABLES (WEIGHT, MODEL, ENGINE TYPE, AIRFRAME CONFIGURATION, ETC)





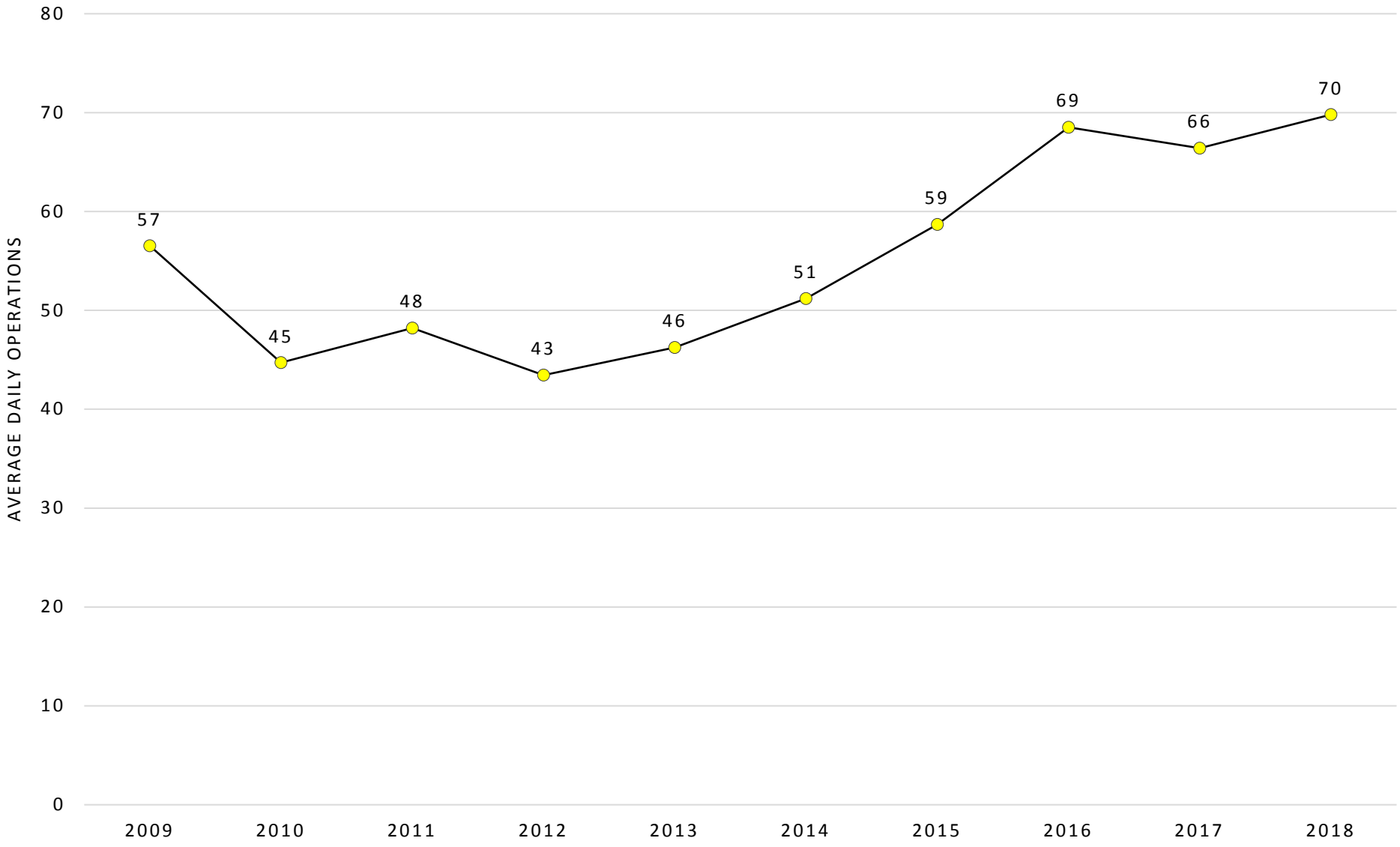
MEASUREMENT GATE IS FIVE NAUTICAL MILES FROM THE THRESHOLD OF THE ARRIVAL RUNWAY





MEASUREMENT GATE IS AN ARC FIVE NAUTICAL MILES FROM THE START OF TAKEOFF ROLL

AVERAGE DAILY NIGHTTIME OPERATIONS
(10:30 PM - 6:00 AM)

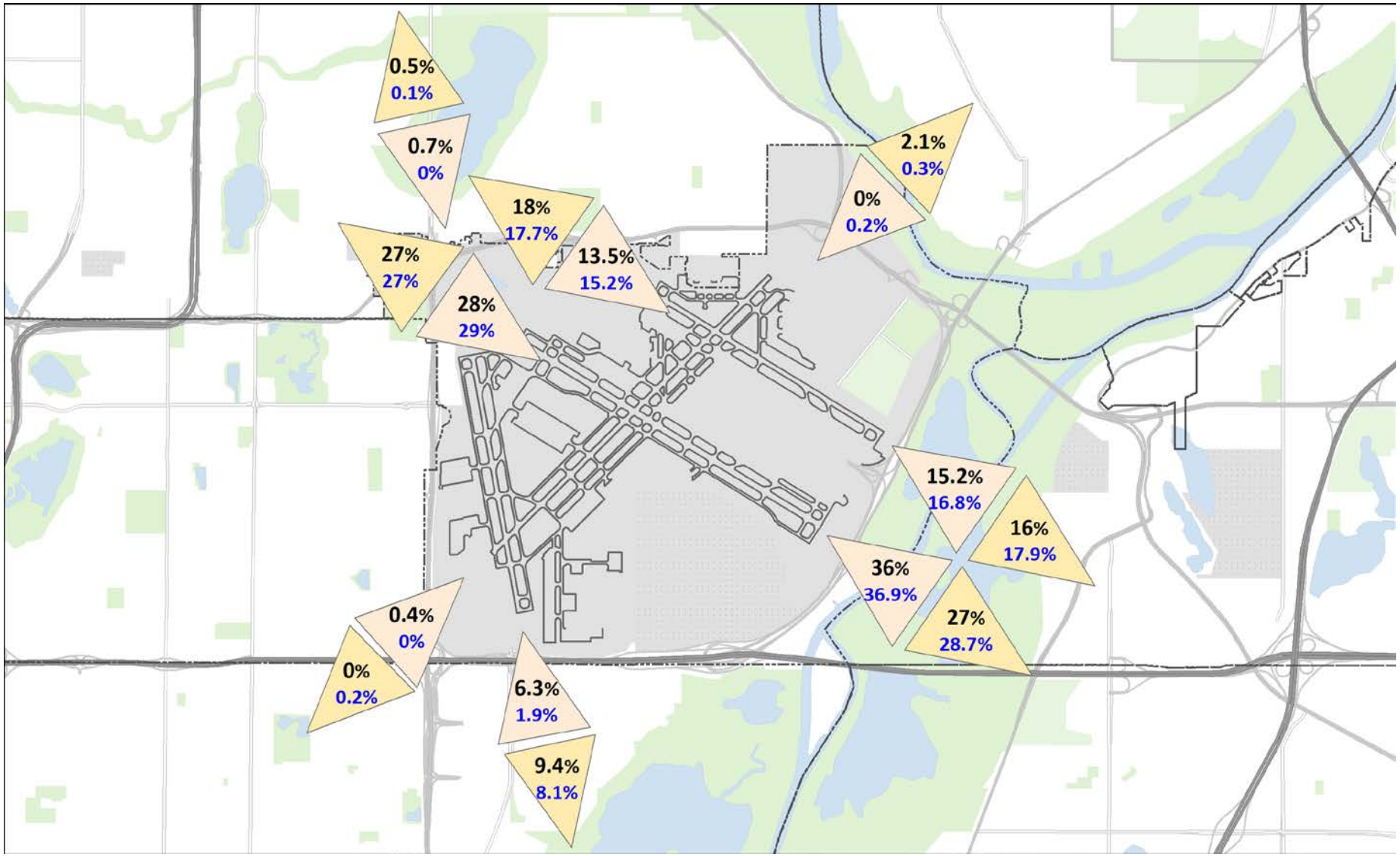


NIGHTTIME OPERATIONS BY RUNWAY

(10:30 PM – 6:00 AM)

			2018			3-YEAR HISTORICAL AVERAGE		
RWY	ARR / DEP	OVERFLIGHT AREA	TOTAL NIGHT OPS	AVERAGE DAILY NIGHT OPS	%	TOTAL NIGHT OPS	AVERAGE DAILY NIGHT OPS	%
04	ARR	SO. RICHFIELD/BLOOMINGTON	67	0.2	0.4%	8	0.0	0.0%
12L	ARR	SO. MINNEAPOLIS/NO. RICHFIELD	2,465	6.8	13.5%	2,646	7.2	15.2%
12R	ARR	SO. MINNEAPOLIS/NO. RICHFIELD	5,114	14.0	28.0%	5,057	13.8	29.0%
17	ARR	SO. MINNEAPOLIS	134	0.4	0.7%	2	0.0	0.0%
22	ARR	ST. PAUL/HIGHLAND PARK	0	0.0	0.0%	37	0.1	0.2%
30L	ARR	EAGAN/MENDOTA HEIGHTS	6,591	18.1	36.0%	6,444	17.6	36.9%
30R	ARR	EAGAN/MENDOTA HEIGHTS	2,772	7.6	15.2%	2,928	8.0	16.8%
35	ARR	BLOOMINGTON/EAGAN	1,151	3.2	6.3%	334	0.9	1.9%
TOTAL NIGHTTIME ARRIVALS			**18,294**	**50.3**		**17,456**	**47.6**	
04	DEP	ST. PAUL/HIGHLAND PARK	151	0.4	2.1%	16	0.0	0.3%
12L	DEP	EAGAN/MENDOTA HEIGHTS	1,149	3.1	16.0%	1,097	3.0	17.9%
12R	DEP	EAGAN/MENDOTA HEIGHTS	1,938	5.3	27.0%	1,760	4.8	28.7%
17	DEP	BLOOMINGTON/EAGAN	676	1.9	9.4%	498	1.4	8.1%
22	DEP	SO. RICHFIELD/BLOOMINGTON	0	0.0	0.0%	12	0.0	0.2%
30L	DEP	SO. MINNEAPOLIS/NO. RICHFIELD	1,937	5.3	27.0%	1,651	4.5	27.0%
30R	DEP	SO. MINNEAPOLIS/NO. RICHFIELD	1,294	3.5	18.0%	1,086	3.0	17.7%
35	DEP	SO. MINNEAPOLIS	38	0.1	0.5%	5	0.0	0.1%
TOTAL NIGHTTIME DEPARTURES			**7,183**	**19.6**		**6,125**	**16.7**	
TOTAL NIGHTTIME OPERATIONS			**25,477**	**69.9**		**23,581**	**64.3**	

NIGHTTIME OPERATIONS BY RUNWAY MAP



NIGHTTIME OPERATIONS BY AIRLINE

(TOP 15 BY COUNT)

	AIRLINE	ID	COUNT	PERCENT OF AIRLINE OPERATIONS OCCURRING AT NIGHT	PERCENT OF CONTRIBUTION TO NIGHT TIME TOTAL
2018	DELTA	DAL	6,933	4.80%	29.20%
	SUN COUNTRY	SCX	3,679	19.00%	15.49%
	SKYWEST AIRLINES	SKW	2,523	2.50%	10.63%
	SOUTHWEST	SWA	2,188	13.50%	9.21%
	AMERICAN	AAL	1,796	12.70%	7.56%
	SPIRIT	NKS	1,256	15.00%	5.29%
	UNITED	UAL	1,080	14.90%	4.55%
	REPUBLIC AIRLINES	RPA	1,028	10.20%	4.33%
	UPS	UPS	984	32.20%	4.14%
	FEDEX	FDX	726	23.60%	3.06%
	ATLAS AIR (USA)	GTI	356	63.70%	1.50%
	ALASKA	ASA	324	22.60%	1.36%
	ENDEAVOR AIR	EDV	308	1.20%	1.30%
	JETBLUE AIRWAYS	JBU	287	20.60%	1.21%
	GULF & CARIBBEAN CARGO	TSU	276	94.20%	1.16%

	AIRLINE	ID	COUNT	PERCENT OF AIRLINE OPERATIONS OCCURRING AT NIGHT	PERCENT OF CONTRIBUTION TO NIGHT TIME TOTAL
2017	DELTA	DAL	5,896	4.10%	26.08%
	SUN COUNTRY	SCX	3,735	17.80%	16.52%
	AMERICAN	AAL	2,417	14.10%	10.69%
	SOUTHWEST	SWA	2,234	12.70%	9.88%
	SKYWEST AIRLINES	SKW	1,888	2.40%	8.35%
	UNITED	UAL	1,248	14.40%	5.52%
	SPIRIT	NKS	1,239	13.50%	5.48%
	UPS	UPS	874	31.90%	3.87%
	REPUBLIC AIRLINES	RPA	721	8.40%	3.19%
	FEDEX	FDX	635	23.90%	2.81%
	ENDEAVOR AIR	EDV	491	1.30%	2.17%
	FRONTIER AIRLINES	FFT	420	18.40%	1.86%
	MESA AIRLINES	ASH	323	9.10%	1.43%
	ALASKA	ASA	298	19.20%	1.32%
	COMPASS	CPZ	188	1.90%	0.83%

*AIRLINE OPERATIONS OCCURRING AT NIGHT REPRSENTS THE PERCENTAGE OF RESPECTIVE AIRLINE SCHEDULE THAT OCCURS AT NIGHT

*CONTRIBUTION TO TOTAL IS RESPECTIVE AIRLINE CONTRIBUTIONS TO OVERALL MSP NIGHT OPERATIONS

2018 NIGHTTIME OPERATIONS BY AIRCRAFT
(TOP 15 BY COUNT)

AIRCRAFT CODE	DESCRIPTION	COUNT	NOISE LEVEL CERTIFICATION (EPNdB BELOW STAGE 3)
B738	BOEING 737-800	5,439	11.3 - 17.1
B757	BOEING 757-200	2,911	11.1 - 22.1
B7377	BOEING 737-700	2,471	11.6 - 19.8
B739	BOEING 737-900	2,354	10.9 - 16.1
A320	AIRBUS INDUSTRIES A320	2,158	12.1 - 21.2
E170	EMBRAER 170	1,505	9.2 - 16.8
CRJ2	CANADAIR REGIONAL JET CRJ-200	1,354	26.5 - 30.6
A319	AIRBUS INDUSTRIES A319	1,065	12.9 - 22.2
A321	AIRBUS INDUSTRIES A321	984	6.4 - 17
CRJ9	CANADAIR REGIONAL JET CRJ-900	914	14.5 - 17.6
CRJ7	CANADAIR REGIONAL JET CRJ-700	699	14.5 - 17.6
B763	BOEING 767-300	681	4.4 - 22.6
B717	BOEING 717	498	19.2 - 23
MD90	MCDONNELL DOUGLAS MD90	465	23.4 - 27.2
MD11	MCDONNELL DOUGLAS MD11	280	12.8 - 17.9

NOISE CERTIFICATION DATA SOURCE: EUROPEAN AVIATION SAFETY AGENCY

CUMULATIVE CERTIFICATED NOISE LEVELS REPRESENTED AS A RANGE BELOW STAGE 3 NOISE LEVELS TO ACCOUNT FOR MULTIPLE CERTIFICATION VARIABLES (WEIGHT, MODEL, ENGINE TYPE, AIRFRAME CONFIGURATION, ETC)

2018 NIGHTTIME OPERATIONS BY ORIGIN AND DESTINATION

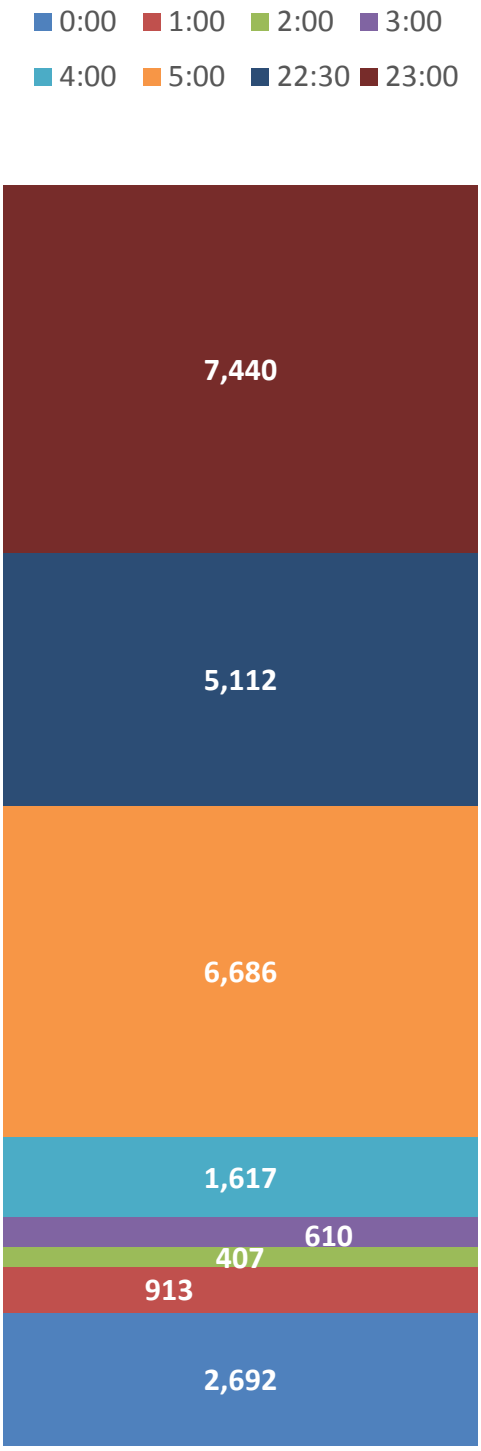
(TOP 15 BY COUNT)

AIRPORT CODE	ORIGIN AIRPORT	COUNT
LAS	LAS VEGAS	1,258
LAX	LOS ANGELES	1,115
PHX	PHOENIX	1,109
SEA	SEATTLE	997
SFO	SAN FRANCISCO	937
DEN	DENVER	895
ATL	ATLANTA	809
ORD	CHICAGO (O'HARE)	735
SDF	LOUISVILLE	470
MEM	MEMPHIS	455
BOS	BOSTON	433
DFW	DALLAS/ FORT WORTH	426
MDW	CHICAGO (MIDWAY)	386
PANC	TED STAVENS ANCHORAGE INTERNATIONAL	363
SLC	SALT LAKE CITY	331

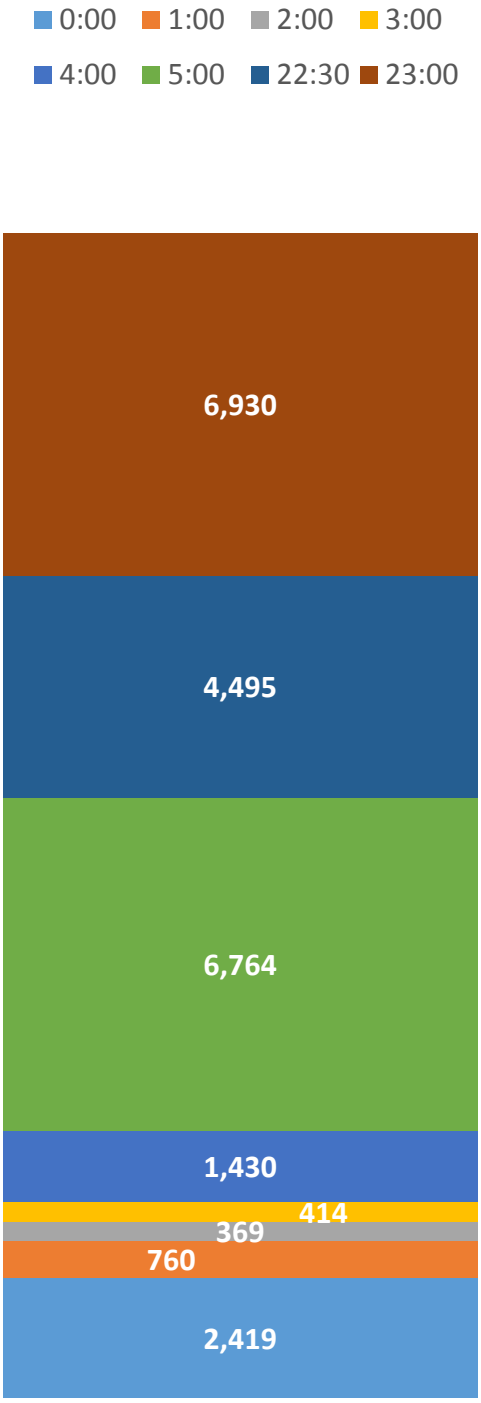
AIRPORT CODE	DESTINATION AIRPORT	COUNT
ATL	ATLANTA	441
ORD	CHICAGO (O'HARE)	399
PHX	PHOENIX	320
DEN	DENVER	315
TVF	THEIF RIVER FALLS REGIONAL	219
CLT	CHARLOTTE	212
IAH	HOUSTON	194
FAR	FARGO	172
MDW	CHICAGO (MIDWAY)	169
LAS	LAS VEGAS	167
MSN	MADISON	161
YWG	WINNIPEG	160
FLL	FT. LAUDERDALE	158
MKE	MILWAUKEE	154
GFK	GRAND FORKS	152

NIGHTTIME OPERATIONS BY HOUR

2018

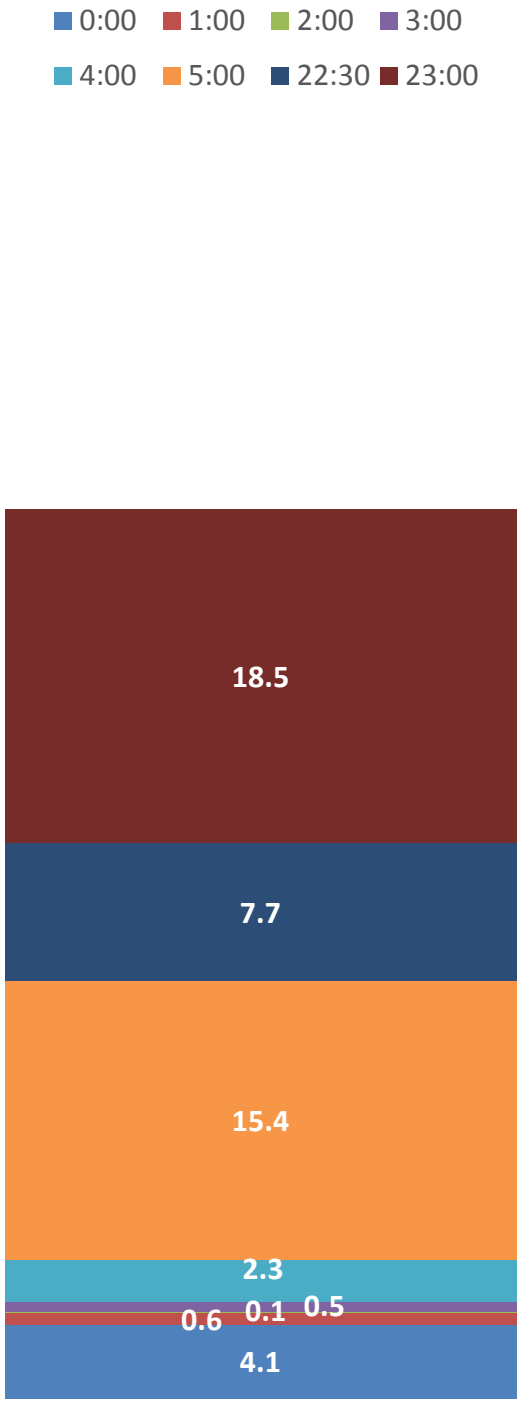


3-YEAR HISTORICAL AVERAGE

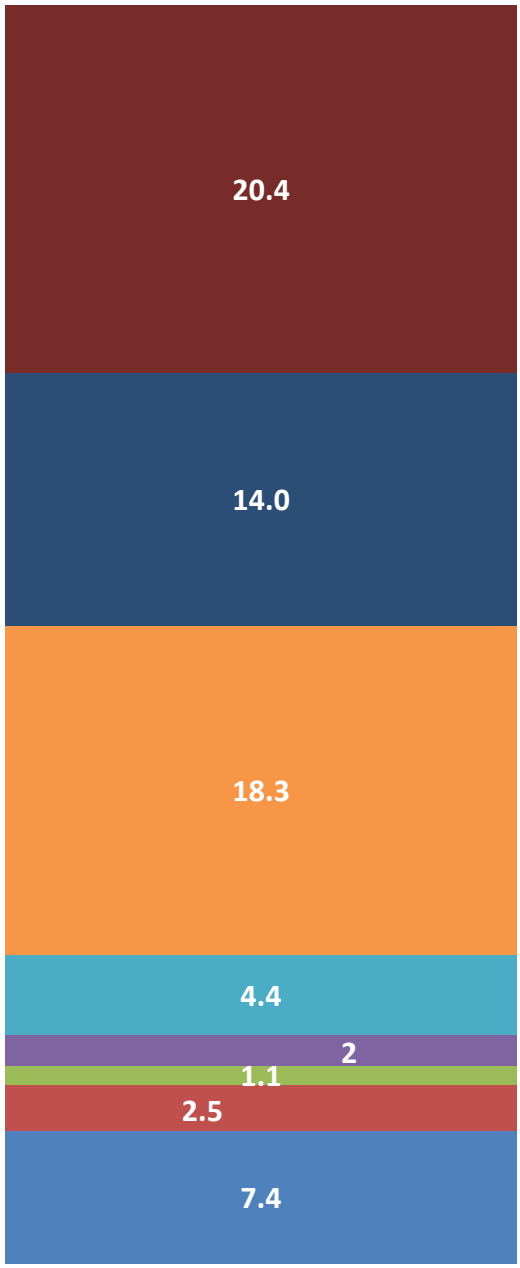


SCHEDULED VERSUS ACTUAL OPERATIONS

DAILY SCHEDULED NIGHT OPERATIONS



DAILY ACTUAL NIGHT OPERATIONS



GENERAL AVIATION AND CHARTER AIRCRAFT OPERATORS DO NOT REPORT SCHEDULED OPERATIONS