

# NOISE OVERSIGHT COMMITTEE January 16, 2019

Audio recordings are made of this meeting

# ITEM 1 REVIEW AND APPROVAL OF NOVEMBER 28<sup>TH</sup> MEETING MINUTES







# ITEM 2 REVIEW OF MONTHLY OPERATIONS REPORTS









2018	2017
405,305	413,480
MSP Operations (MACNOMS)	MSP Operations (MACNOMS)



SOURCE: FAA OPSNET \*FAA OPSNET DATA AVAILABLE FROM JAN-18 THROUGH NOV-18. 2018 NUMBER IS ESTIMATED

NOVEME	3ER 2018	DECEMBER 2018								
31,299	2,071	31,781	2,122							
Operations	Nighttime Operations (10:30 PM – 6:00 AM)	Operations	Nighttime Operations (10:30 PM – 6:00 AM)							



2018	2017
25,477	24,241
MSP Nighttime Operations (MACNOMS)	MSP Nighttime Operations (MACNOMS)



SOURCE: MACNOMS

2018\*

## RUNWAY USE

	NOVEMBER 2018		DECEMBER 2018								
NORTH FLOWS	SOUTH FLOWS	MIXED FLOWS	NORTH FLOWS	SOUTH FLOWS	MIXED FLOWS						
45%	41%	7%	26%	48%	16%						

	North	Flow	11000 11 11			n Flow	1 1 1 1 1 1 1			d Flow	TTT IF W
SOUTHWEST	NOKOMIS		Lilydale We Hidden Falls- rosby Farm Park	SOUTHWEST	NOKOMIS	She was	Lilydale We Hidden Falls- Crosby Farm Park	SOUTHWEST	NOKOMIS	Real of the second seco	Lilydale We: Hidden Falls- Crosby Farm Park
Richfield	Mall of America Valley Nati	Hendol Fort Snelling State Park	<sup>a</sup> Mendota Heights	Richfield	Mall of Arrest	Mend Fort Sneum State Park	<sup>ota</sup> Mendota Heights	Richfield	Matl of American	Ment ort Snelling State Park	lota Mendota Heights s
Year	Flow	Hours	% Use	Year	Flow	Hours	% Use	Year	Flow	Hours	% Use
2017	North	1,312	16.6%	2017	South	2,213	28.0%	2017	Mixed A	823	10.4%
	North*	1,879	23.7%		South*	1,003	12.7%		Mixed B	30	0.4%
	Total	3,191	40.3%		Total	3,216	40.6%		Total	853	10.8%
2018	North	940	11.9%	2018	South	2,518	31.8%	2018	Mixed A	905	11.4%
	North*	1,787	22.5%		South*	1,123	14.2%		Mixed B	29	0.4%
	Total	2,727	34.4%		Total	3,641	45.9%		Total	934	11.8%





#### 2018 MSP CARRIER JET USAGE WITH CUMULATIVE CERTIFICATED NOISE LEVELS



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

## MSP COMPLAINTS

		NOVEMBER	2018			DECEMBER	2018	
CO	MPLAINTS		LOCATIONS		COMPLAINTS		LOCATIONS	
	9,508		193		9,220		201	
Operatio	ons per Complaint	New Locations	Average	Median	Operations per Complaint	New Locations	Average	Median
	3.3	11	49	4	3.4	7	46	5
20,000 18,000 16,000 14,000 12,000 8,000 6,000 4,000 2,000	6,054 6,977 9,974 9,676 8,720 12.827	9,244	5,547 7,594 13,196 10,040 11,063	12,227 10,878 12,035 10,831 9,983 7,241	6,318 7,457 12,012 13,244 13,907 13,907 14,617 16,293 16,293	15, 10,844 3,929 34	6,018 10,799 8,607 13,336 13,456 14,453	16,643 18,513 13,137 9,508 9,220
0	<u> </u>	<u> </u>	<u>و</u> و	<u>و</u> و		8	∞ ∞ ∞	∞ ∞
	JAN-15 MAR-15 MAY-15	JUL-15 SEP-15 NOV-15	JAN-16 MAR-16 MAY-16	JUL-16 SEP-16 NOV-16	JAN-17 MAR-17 MAY-17 JUL-17	SEP-17 NOV-17 JAN-18	MAR-18 MAY-18 JUL-18	SEP-18 NOV-18

## MSP COMPLAINTS



	2018	
COMPLAINTS	LOCATIONS	AVERAGE
139,524	1,484	94

	2017	
COMPLAINTS	LOCATIONS	AVERAGE
149,055	1,621	92



SUNFISH LAKE 87 COMPLAINTS 5 LOCATIONS

**MENDOTA HEIGHTS** 

2,882 COMPLAINTS

**57 LOCATIONS** 





# **TOP 10 LOCATIONS**

#### FILED **71,785** (51.4%) COMPLAINTS DURING 2018

**8 OF 10** LOCATIONS WERE IN THE TOP 10 FOR 2017 DATA

**1,047** (71%) LOCATIONS FILED 10 OR LESS COMPLAINTS



# **TOP 10 LOCATIONS**

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# SOUND MONITORING

	NOVEMBER 20 <sup>2</sup>	18		DECEMBER 201	8
Time Above	<b>46</b> s TA <sup>65</sup> per operation	<b>402<sub>h</sub> 58<sub>m</sub></b> TA <sup>65</sup>	Time Above	<b>45</b> s TA <sup>65</sup> per operation	<b>394<sub>h</sub> 40<sub>m</sub></b> TA <sup>65</sup>
Count Above	<b>2.57</b> N <sup>65</sup> per operation	<b>80,533</b> N <sup>65</sup>	Count Above	<b>2.54</b> N <sup>65</sup> per operation	<b>80,645</b> N <sup>65</sup>

JAN-15	337 H 44 M 26 S 268 H 15 M 48 S
MAR-15	431 H 8 M 58 S 436 H 40 M 32 S
MAY-15	474 H 6 M 9 S 483 H 12 M 14 S
JUL-15	474 H 44 M 25 S 500 H 27 M 47 S
SEP-15	
NOV-15	1 54 S
JAN-16	
MAR-16	M 38
MAY-16	506 H 10 M 32 S 470 H 22 M 29 S
JUL-16	499 H 53 M 51 S 487 H 26 M 31 S
SEP-16	503 H 50 M 48 S 500 H 41 M 49 S
NOV.16	543 H 51 M 38 S 490 H 4 M 28 S
	4 27 M 45 S
JAN-17	363 H 58 M 45 S 391 H 31 M 59 S
MAR-17	481 H 6 M 28 S
MAY-17	513 H 41 M 26 S
JUL-17	454 H 29 M 52 S
SEP-17	506 H 47 M 37 S 444 H 17 M 9 S
2 F 7/0N	505 H 44 M 23 S
-	H 26 M 25 S
JAN-18	291 H 3 M 14 S 261 H 17 M 5 S
MAR-18	425 H 9 M (
MAY-18	381 H 17 M 54 S 434 H 51 M 17 S
	477 H 41 M 53 S
	H 4 M 1
SEP-18	
NOV-18	501 H 47 M 33 S 402 H 58 M 44 S
	40 M (

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	NOVEMBER 20 <sup>2</sup>	8		DECEMBER 201	8
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120,000

100,000					33		620	]		991		244	132 693	02	101,946	<sub>0</sub>			2	53	35 35	9	347	[	72						60	8	82	020	2	
80,000		155	82,744	93,82	95,333 97 91	89,765	95,859 89,373	606,		98,466 94 149	91,96	98,244	99,132 101 693	96,602	101	92,096	125 24	4	93,252	95,553 07 228	95,365	94,436	98,84	88	95,47 83 362		1		86,128 429	88,436	96,909	92,738	98,1	89,809 96.02	- I	· · ·
60,000	3,112	83,	82,				00	37.8	70,424							۲ ۱	74.224	· · · ·			-			87	83	73,949	Ĩ ► [	31	76.429	_			0		80,5	
40,000	68, 56 930	-																									<u> </u>	57,73								
20,000																																				
0																																				
	N-15	۲-15	Y-15		L-15	o-15	V-15	16	-	۲-16	Y-16		L-16	o-16		V-16	V-17		۲17	- - -		L-17		-17	V-17	-	N-18	•	8 - 7	Υ-18		L-18	7		V-18	,
	JAN	MAR	МΑΥ		JUL	SEP	NOV	N	20	MAR	MAY		JUL	SEP		> O N	-NAL		MAR			JUL		SEP			-NAL		Ч Ч Ч Ч	МАҮ		JUL	С Ц С	しつ	-VON	

2018							
Time Above	<b>44</b> s TA <sup>65</sup> per operation	<b>4,938</b> h TA <sup>65</sup>					
Count Above	<b>2.48</b> N <sup>65</sup> per operation	<b>1,004,657</b> N <sup>65</sup>					

2017							
Time Above	<b>48</b> s TA <sup>65</sup> per operation	<b>5,456</b> h TA <sup>65</sup>					
Count Above	<b>2.58</b> N <sup>65</sup> per operation	<b>1,065,035</b> N <sup>65</sup>					

## NOISE ABATEMENT

NOVEMBER 2018	3	DECEMBER 2018				
Runway 17 99.79	%	Runway 1	7 99.5%			
Corridor 94.49	%	Corridor	95.2%			
Cross Day 28.9	%	Cross Day	/ 33.1%			
Cross Night 38.0	%	Cross Nigh	nt <b>46.7%</b>			

RUS	52.3%	Arrive – <b>59%</b>	Depart – <b>46%</b>	RUS	55.3%	Arrive – <b>52%</b>	Depart – <b>59%</b>
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## NOISE ABATEMENT

20	2018			2017				
Runway 17	99.5%			Runway 17	99.7%			
Corridor	94.5%			Corridor	94.3%			
Cross Day	34.5%			Cross Day	32.7%			
Cross Night	40.7%			Cross Night	41.4%			
RUS	53.7%			RUS	53.3%			

# ITEM 3 PUBLIC COMMENT PERIOD







# ITEM 3 PUBLIC COMMENT PERIOD

### Speaking at a Meeting

- Please complete and submit a speaker card.
- Each speaker will have one opportunity to speak and is allotted three (3) minutes.
- When called upon to speak, speak clearly into the microphone, state your name and address. If you are affiliated with any organization, please state your affiliation.
- Commenters shall address their comments to the NOC and not to the audience.
- Use of profanity, personal attacks, or threats of violence will not be tolerated.





# ITEM 4 MSP FLEET MIX AND NIGHTTIME OPERATIONS REPORT



















#### Item 4: MSP Fleet Mix and Nighttime Operations Report



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#### **Item 4: MSP Fleet Mix and Nighttime Operations Report**



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)







CUMULATIVE CERTIFICATED NOISE LEVEL BELOW STAGE 3 (EPNdB)



















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#### **AVERAGE SEATS PER FLIGHT**



**JANUARY 16, 2019** 





#### NOISE OVERSIGHT COMMITTEE JANUARY 16, 2019



SOURCE: MSP MONTHLY OPERATIONS REPORTS

80	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
<b>—</b> 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
	89.1	92.8	100.1	96.2	96.1	101.3	101.8	100.9	97.0	98.4	96.5	94.2
	92.8	97.4	101.4	96.0	97.8	103.0	103.8	103.9	97.4	99.6	98.8	





AVERAGE PASSENGERS PER FLIGHT



#### NOISE OVERSIGHT COMMITTEE JANUARY 16, 2019



SOURCE: MSP MONTHLY OPERATIONS REPORTS \*2018 DATA INCLUDES JANUARY – NOVEMBER ONLY



#### AVERAGE PASSENGERS PER FLIGHT

2018

2017

2016

Item 4: MSP Fleet Mix and Nighttime Operations Report
#### AVERAGE DAILY NIGHTTIME OPERATIONS



### Item 4: MSP Fleet Mix and Nighttime Operations Report







			PERCENT OF AIRLINE	PERCENT OF
AIRLINE	ID	COUNT	OPERATIONS	CONTRIBUTION TO
			<b>OCCURRING AT NIGHT</b>	NIGHT TIME TOTAL
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%

#### **2018 NIGHTTIME OPERATIONS BY AIRLINE**





#### **2018 NIGHTTIME OPERATIONS BY HOUR**

■ 0:00 ■ 1:00 ■ 2:00 ■ 3:00 ■ 4:00 ■ 5:00 ■ 22:30 ■ 23:00



#### **2015 – 2017 OPERATIONS BY HOUR**

■ 0:00 ■ 1:00 ■ 2:00 ■ 3:00 ■ 4:00 ■ 5:00 ■ 22:30 ■ 23:00







#### **2018 SCHEDULED OPERATIONS BY HOUR**

■ 0:00 ■ 1:00 ■ 2:00 ■ 3:00 ■ 4:00 ■ 5:00 ■ 22:30 ■ 23:00



#### **2018 ACTUAL OPERATIONS BY HOUR**

■ 0:00 ■ 1:00 ■ 2:00 ■ 3:00 ■ 4:00 ■ 5:00 ■ 22:30 ■ 23:00







### Item 4: MSP Fleet Mix and Nighttime Operations Report

#### 2017 VS 2018 SCHEDULED OPERATIONS BY HOUR



■ 0:00 ■ 1:00 ■ 2:00 ■ 3:00 ■ 4:00 ■ 5:00 ■ 22:30 ■ 23:00





# ITEM 5 EAGAN MOBILE NOISE MONITORING STUDY PLAN







# **Eagan Noise Monitoring Request**

A mobile noise monitoring request was sent from the ARC to the MSP Noise Oversight Committee and was approved at its September 2018 meeting

The goal identified in the request:

- 1. Determine if gaps in the RMT coverage area currently exist in the City of Eagan.
- 2. Determine if two of the RMT closest to Interstate 35-E are properly located to best monitor aircraft noise given the ambient freeway noise.







RMT BUFFER



#### MAC REMOTE MONITORING TOWER LOCATIONS

# November 2018

	Recorded	Valid Aircraft	
RMT	Events	Events	Ratio
14	5572	5240	94.0%
16	6053	5736	94.8%
24	5735	4960	86.5%
25	3647	869	23.8%
35	1073	696	64.9%
37	3666	367	10.0%
38	1198	802	66.9%
39	1228	994	80.9%





# **Study Purpose**

Collect quality recordings and measurements of aircraft noise events associated with MSP Airport that occur in the City of Eagan, in accordance with established Mobile Sound Monitoring Guidelines. The objective of the study is to compare data collected from the mobile equipment with data being collected at the RMTs 25 and 37.





# Timing and duration of the study

Target start date of Wednesday, May 1, 2019 with data collection for two consecutive weeks.

The data will be presented in a report at the July 9 Eagan ARC and July 17 NOC meetings.





# Number of mobile noise monitors and siting criteria

2 locations in accordance with established Mobile Sound Monitoring Guidelines as follows:

- Located to monitor aircraft operations at MSP
  - Under known aircraft flight paths
- Where flight operations are at altitudes, concentrations, and configurations creating sound levels above community sound levels
- Away from known community sound sources (such as large arterial roads, train tracks, factories, and transit centers and other gathering spots)
- In areas where the permanent sound monitoring sites are not already monitoring aircraft noise levels
- Predominantly residential
- Within 100 feet of electrical power
- On public property





## Locations

- 1. Thomas Lake Park
- 2. Mueller Farm Park

The Eagan ARC requested **O'Leary Park** to be the alternate site in the event that either of the above targeted locations pose unforeseen challenges.

RMT Near I-35E





Feet

# What the data will provide

- A comparison of sound data collected from the mobile equipment and sound data collected at permanent noise monitoring sites in Eagan will reveal if gaps exist.
- An assessment of mobile data collected will determine aircraft noise levels and community noise levels in the areas where the mobile equipment is placed.

# What the data will not provide

- Residential sound insulation eligibility
- Changes to annual noise contours at MSP





# ITEM 6 EVALUATE NOISE MANAGEMENT BENCHMARKING STUDY FINDINGS AND CONSIDERATIONS







# BEST PRACTICES FOR AIRPORT NOISE OFFICES

- TRANSPARENCY
- $\rightarrow$  Reporting
- → Interactive and up-to-date noise website
- $\rightarrow$  Informing community
- $\rightarrow$  Share data

COLLABORATION

- **RESPONSIVENESS**
- → Responding to noise complaints
- $\rightarrow$  Engaging with community
- $\rightarrow$  Open dialogue
- $\rightarrow$  Technology
- $\rightarrow$  Partner with stakeholders
- $\rightarrow$  Look ahead
- $\rightarrow$  Plan





# STUDY FINDINGS AND CONSIDERATIONS

- 1. Take noise complaints from non-residential addresses
  - 73% of airport respondents accept noise complaints from nonresidential addresses
  - Revisions to MAC's Aircraft Activity Complaint guidelines
  - A residential address is not required to log an aircraft noise complaint
- 2. Live-stream NOC meetings
  - 29 of 54 airports responded they have a standing noise committee
  - Two airports offer a live-stream video recording of noise committee meetings
  - Requires investment in upgrades to Lindbergh Conference Room, staff and vendor support
  - The MAC's CIP does not include room upgrades
- 3. Provide real-time alerting to the FAA for established noise abatement procedures to increase compliance and awareness
  - 56% of airport respondents report they have voluntary noise abatement procedures
  - MAC regularly reports compliance with four noise abatement procedures
  - Last December, staff developed and implemented a Noise Abatement Dashboard to alert staff and ATC real-time excursions from voluntary noise abatement procedures





# ITEM 7 2019 NCAA FINAL FOUR AIRCRAFT ACTIVITY UPDATE







### You may have heard...

- More activity beginning Wed 4/3 and continuing through Tue 4/9
- MSP expects to have 100 more private flights
- Charter flights with team booster clubs, friends and family will bring in an additional 10-15 flights during the event
- Between 40,000-50,000 people are expected to fly out of MSP during the peak departure day (Tue 4/9)
- The MAC general aviation reliever airports are also expecting to see more flight activity
- Low-flying helicopters may be seen from the ground and high-rise buildings in and around Minneapolis at the end of March and throughout the first week of April





### Item 7: 2019 NCAA Final Four Aircraft Activity Update





The MAC anticipates arrivals will peak in the hours leading up to the Semifinal games on... and departures will peak after the National

and into the following day...





### Item 7: 2019 NCAA Final Four Aircraft Activity Update



# Predominantly, increased flights will be in corporate jets and turboprop aircraft











# MSP Final Four Community FACT SHEET

#### You may have heard...

The 2019 NCAA Final Four is coming to Minnesota. The event is expected to draw thousands of people to the Twin Cities. For many, their first stop is the Minneapolis-St. Paul International Airport (MSP). MSP is preparing to meet the needs associated with this event to ensure a high level of service for our passengers, while being mindful of neighboring communities. There are a few things we wanted to share so you know what to expect during this busy time.



#### What you can expect...

 More flight activity at MSP is expected between Wednesday, April 3 and Tuesday, April 9 (the National Semifinal games will be Saturday, April 6 and the National Championship is Monday, April 8).

 During the week leading up to Saturday's Semifinal games and the day after the National Championship, MSP expects to have 100 more private flights.

 Corporate jets and turboprop aircraft, like the ones pictured, will be used more than normal during all hours of the day and night, including the early morning hours and later into the evening.

 Charter flights with team booster clubs, friends and family will bring in an additional 10-15 flights during the event.

 Low-flying helicopters conducting security surveillance may be seen from the ground and high-rise buildings in and around Minneapolis at the end of March and throughout the first week of April.

# Post on macnoise.com

Distribute at January and March NOC meetings

Email to NOC members

Share at the Winter Listening Session

#### Reliever Airport Fact Sheet



The 2019 NCAA Final Four is coming to Minnesota. The event is expected to draw thousands of people to the area and the Metropolitan Airports Commission (MAC) is preparing its airport facilities to accommodate those traveling by air.

Many event-goers traveling to and from the Twin Citles will use commercial airline services at Minneapolis-St. Paul International Airport (MSP); many others will use non-commercial aviation services, like those that operate at the MAC's general aviation airports.



#### Those airports include:

STP: St. Paul Downtown Airport in St. Paul
ANE: Anoka County-Blaine Airport in Blaine
FCM: Flying Cloud Airport in Eden Prairie

- MIC: Crystal Airport in Crystal
- LVN: Airlake Airport in Lakeville
- 21D: Lake Elmo Airport in Lake Elmo

The MAC is preparing to meet the increase in demand while ensuring a high level of service and being mindful of neighboring communities.

#### What you can expect...

 During the week leading up to the National Championship game and one day after (April 1-9, 2019), MAC expects to have more aircraft taking off and landing than usual at each of its airports.

 We anticipate the highest volume of flights to occur from Wednesday, April 3rd through Tuesday, April 9th.





# ITEM 8 ANNOUNCEMENTS

<u>Winter Listening Session</u> Wednesday, January 23, 2019 @ 7:00 PM MAC General Offices Lindbergh Conference Room March NOC Meeting

Wednesday, March 20, 2019 @ 1:30 PM MAC General Offices Lindbergh Conference Room



