



**MSP NOISE OVERSIGHT COMMITTEE
MEETING MINUTES**
Wednesday, 16th of January 2019 at 1:30 PM
MAC General Office
Lindbergh Conference Room

Call to Order

A regularly-scheduled meeting of the MSP Noise Oversight Committee, having been duly called, was held Wednesday, 16th of January 2019, in the Lindbergh Conference Room at the MAC General Office building. Chair Miller called the meeting to order at 1:30 PM. The following were in attendance:

Representatives: D. Miller; J. Hart; R. Barette; G. Goss; B. Hoffman; J. Malin; P. Martin; L. Olson; P. Dmytrenko, J. Miller; A. Moos; C. Finlayson;

Staff: D. Nelson; B. Juffer; A. Kolesar; J. Lewis; N. Pesky; D. Anderson; N. Ralston

Others: C, Jacobson – City of Mendota Heights; D. Sloan – City of Mendota Heights; M. Brindle – City of Edina; L. Moore – City of Bloomington; B. Hoffman – City of Saint Louis Park; L. Petschel – City of Mendota Heights; J. Gundlach – City of Inver Grove Heights; D. O’Leary – City of Sunfish Lake; A. Nemcek – City of Rosemount; M. Doll – City of Burnsville

1. Review and Approval of the November 28, 2018 Meeting Minutes

Chair Miller, Eagan, asked for a motion to approve the minutes pending a correction to the attendance list. The motion was moved by **Co-Chair Hart, Delta**, and seconded by **Representative Martin, Bloomington**. It was passed unanimously.

2. Review of Monthly Operations Reports: November and December, 2018

Brad Juffer, Assistant Technical Advisor, stated there were 31,299 operations in November 2019 and 31,781 operations in December. The 969 flight reduction in November equated to a 3% drop from November 2017; December had a 4% reduction or 1,317 fewer flights than December of 2017.

For the year of 2018, MACNOMS recorded 405,305 operations at MSP; this total is 8,175 fewer operations than 2017. According to FAA OPSNET flight totals, the 2018 final total will be the 2nd lowest total at MSP in the past 25 years. The final amount will be only higher than the 404,000 operations of 2015.

In November, MACNOMS tallied 2,071 operations between 10:30 PM and 6:00 AM at MSP and 2,122 operations during those same hours in December. For these two months, the nighttime total increased by 285 flights or an average of 4.5 flights per night. In all of 2018, 25,477 operations during the MSP nighttime hours; this is 1,236 more than 2017 or 3.25 more per night.

November saw a balanced use of North, South, and Mixed Flow configurations; the flows were split 45/41/7. South Flow configurations were used often in December with splits of 26/48/16. In all of 2018, the use of North Flows decreased by 464 hours or the equivalent of 19.3 days for the year; a 14.5% reduction from 2017. These hours were made up by South Flows, which increased by 425 hours or the equivalent of 17.75 days; a 13.2% increase from 2017. Mixed Flows took most of the leftover with 81 more hours in this configuration in 2018 vs 2017, a 9.5% increase.

RUS Priority 1 runways were used 34.1% of the time in 2018, combined with the 19.6% of use for Priority 2 totaled to 53.7% use for the high priority runways. 30L and 30R saw a reduction of 8,537 arrivals compared to 2017. 30L and 30R handled 13,008 fewer departures in 2018; the decrease of 8,405 operations on 30L was the single biggest change of any runway. Runway 35 had 2,193 fewer arrivals than 2017. Runways 12L and 12R took 6,663 more arrivals than 2017 and 3,618 more departures. Runway 17 had 4,321 more departures in 2018 as both South Flow and Mixed Flow hours increased. Runway 4 handled 1,050 departures in 2018 a 6900% increase. 1,038 of those operations occurred during heavy snow conditions on Jan 22, Apr 13-16, and Dec 1 and 2.

A few Notes on MSP Carrier Jet Usage

- The CRJ9 was the top used aircraft type in December. 22 out of the past 24 months, the CRJ2 was the top used aircraft. The CRJ9 was the top aircraft used in December and March 2018.
- The B747-400 had 38 operations in December as UPS increased their December schedule to account for the holiday shipping season.
- The last scheduled MD-80 operation at MSP occurred on 12/18/18. Viewing the airline scheduled data through the end of February 2019, there isn't another MD-80 scheduled to operate at MSP during that time.

The MAC Noise office received 9,508 complaints in November and an additional 9,220 aircraft noise complaints for MSP flights in December. The complaint count in November is 579 more than 2017 while the December number is 2,036 more complaints than 2017. Collectively, that is a 16% increase in complaints received. Complaints were filed from 193 locations in November and 201 locations in December. The November location total is a reduction of 51 locations from 2017 while the December count is 14 higher than 2017.

For 2018, the Noise Office received 139,524 complaints related to aircraft using MSP. The 9,531 complaint reduction equates to a 6% drop from 2017. There were 1,484 locations that filed a complaint in 2018, a location reduction of 137 from the 1,621 locations in 2017.

2018 complaints by city:

- 67,939 complaints were filed by 707 locations within Minneapolis

- 25,277 complaints were filed by 169 locations in Eagan

Compared to 2017, the following cities saw an increase in complaint totals for 2018:

- Minneapolis
- Richfield
- Edina
- Sunfish Lake

Compared to 2017, the following cities saw a decrease in complaint totals for 2018:

- Eagan
- Mendota Heights
- Burnsville
- Bloomington
- IGH
- Apple Valley
- St. Louis Park
- St. Paul

Compared to 2017 the following cities saw an increase in complaint locations:

- Mendota Heights
- Edina
- St Paul

Compared to 2017, the following cities saw a decrease in complaint locations for 2018:

- Minneapolis
- IGH
- Burnsville
- Bloomington
- Eagan
- Richfield
- St. Louis Park
- Sunfish Lake

Apple Valley had the exact same complaint locations in 2018 as it did in 2017. The Top 10 locations in 2018 filed 71,785 complaints. On average, there are 94 complaints per location. In 2017, the Top 10 locations filed 78,106 complaints. The majority of all locations filed 10 or less complaints for the entire year.

On to sound monitoring, aircraft events occurred for 403 hours in November and 395 hours in December. Overall, this is a 0.7% reduction in the Time Above 65 dBA attributable to aircraft for November and December compared to 2017. The 8,533 events for November and 8,645 events in December is 3,867 more events than the same months in 2017. This is a total increase of 2.5% compared to 2017. When comparing 2018 sound data to 2017, both the Time Above 65 at the sites and the number of events recorded have decreased in 2018.

Regarding noise abatement, R17 procedure was consistent at 99.7% in November and 99.5% in December. There were 39 jets west of the turn-point during those two months. The corridor procedure was used 94.4% of the time in November and 95.2% in December. 289 jets were outside the corridor, 73 on 11/4, and 85 on 12/1, both days were very windy. The use of the crossing procedure, during the day, was 29% in November and 33% in December; use at night was 38% and 47%. In November, the use of 1st and 2nd priority runways was at 52.3% of the time and was 55.3% of the time in December.

For annual results:

- Runway 17 was used 99.5% of the time in 2018.
- Eagan/Mendota Heights was used 94.5% of the time in 2018
- Daytime Crossing-in-the-Corridor stood at 34.5% while night crossing fell to 40.7%
- Use of Priority 1 and 2 runways in 2018 was at 53.7%. This is the highest percent usage in the past 10 years.

3. Public Comment Period

Chair Miller, Eagan, noted there were not any speaker cards prepared for the meeting and then asked if there was anyone present, wanting to speak. No audience members requested to speak.

4. MSP Fleet Mix and Nighttime Operations Report

Brad Juffer, Assistant Technical Advisor, expanded on the year end data and reiterated that MACNOMS recorded 405,305 MSP operations in 2018. This total is the 2nd lowest total in more than 25 years, but fairly stable when looking at the last 5 years. The proportion of traffic operated by carrier jets has been stable for the past five years. In 2018 carrier jets accounted for 92.5% of all traffic at MSP.

The remainder of the Fleet Mix data will focus only on the carrier jet portion of the operations.

Carrier jets are categorized into three distinct groups:

- Regional jets are short to medium range turbofan powered aircraft and accounted for 40.2% of all carrier jet operations in 2018. While significantly lower than years earlier this decade, 2018 was the first time since 2012 that the trend of regional jet ceding ground to narrowbody jet aircraft has reversed.
- Narrowbody aircraft are larger short to medium range aircraft flown by major airlines. This category accounted for 57% of all carrier jet operations at MSP. Both the total operations and proportion were declines in 2018.
- Wide-body aircraft are medium to long haul aircraft, typically configured with multiple seating rows. In 2018 widebody aircraft flew 2.8% of the carrier jet operations at MSP, a slight increase from 2017.

The regional jet category is very homogenous as the top 5 aircraft types flew all but 258 of the regional jet operations in 2018. Of the listed aircraft. The CRJ2, E170 and E190 operations decreased from 2017 while the CRJ9 and CRJ7 both increased from 2017.

For narrowbody aircraft, the Boeing 737-800 and 737-900 both posted gains in 2018 at MSP. The MD-90, A320 and A319 all saw decreases in 2018. The narrowbody category has many more aircraft types, the other category includes aircraft types like the B757, B717, 737-700, A321.

The widebody category represents a very small portion of the total carrier jet use. In fact, the total of all widebody aircraft is fewer than 12 individual aircraft types. The use of the DC-10, MD-11 and A330 all decreased in 2018 while the B763, B777 had increases in 2018. The increase in the B763 is the result of Amazon Air operation.

In 2018, the CRJ2 was one of the quietest aircraft flown at MSP and was the most used aircraft type. The two newest narrowbody models—the A320neo and B737-8 (max) were flown 1,683 times in 2018. Usage of the MD80 dropped by 88%. Use of the DC10 dropped 14%

Juffer continued on to share analysis results related to arrival and departure altitudes; the average annual arrival altitudes have a range of less than 50' during the past five years. Specific range details by month are in the report on the MAC Noise Website. While the departure arc is much bigger, it remains five nautical miles from the start of takeoff roll for the primary five runways at MSP. The report also has departure monthly values available. There is a positive

relationship between the narrowbody category and regional jet category but that is not the case for widebody aircraft.

Looking at only regional jets and narrowbody aircraft, there has been a drop in average altitude by just over 200 feet from 2014 to 2018 in both categories. The variable that contribute to this are varied, but include temperature, headwind, aircraft weight. The average temp in 2014 was 44.8° which was more than 3° lower than any of the other 4 years. The lower temperature in 2014 certainly aided higher altitudes in that year.

Using scheduled data received from OAG, which includes seat information, the scheduled seats per flight for the past three years at MSP were calculated. With the exception of August 2016 vs August 2017, every month has seen an increase from the previous year for the past 24 months. The result is an incremental increase in seats available for flights at MSP. According to the schedule data, there were 116 sets available on every flight in 2016 increasing to 117 in 2017 and up again to nearly 120 in 2018.

Looking at the actual passenger information reported by the airlines to the MAC, 10 out of 11 months in 2018 posted year over year gains in average passengers per flight; April was the lone outlier. If you roll that into annual averages you get a similar increase in average passengers per flight. In 2016 there were 97 passengers / flight, increasing by half a passenger in 2017 and up to 99.5 through the first 11 months of 2018.

Representative Olson, Minneapolis, asked if the increase in passengers is adding enough weight to the airplanes and thus attributable to lower altitudes. **Juffer** responded that he believes it is a variable, specifically in the departure altitude as the arrival altitude is set by glide slope and procedure.

Juffer moved on to nighttime operations. MACNOMS recorded 25,477 operations between 10:30 PM and 6:00 AM in 2018. On a daily basis, that is an average of just under 70 night flights per day at MSP. This is a 5% increase from 2017 and a 1.6% increase from 2016.

The south parallel runway 12R/30L continues to handle the majority of nighttime traffic with a total of 61% of operations on that runway at night. The north parallel 12L/30R is next at 30%. 17-35 to the south is next at 7.2%. Runway 4 and 17/35 to the North took the remaining 1.5% as summer closures of the parallels and winter operations increased the use. Runway 22 did not have a single nighttime arrival or departure in 2018.

Delta operated just under 7,000 flights at night in 2018. Due to the size of their operation here, those 7,000 flights were only 4.8% of their schedule. A common anecdote is that cargo flights always happen at night. FedEx and UPS flew 1,710 operations at night in 2018 at MSP. Their individual totals represented only 32% of the UPS schedule and only 24% of the FedEx schedule. Atlas Air is one of the airlines operating aircraft for Amazon. Gulf and Caribbean Cargo is a feeder airline flying a CRJ2 for FedEx. Overall, the 5:00 AM hour posted a reduction from 2018 to the previous average. On the other side, collectively, the 10:30 PM, 11:00 PM, 12:00 AM and 1:00 AM were up by 1,553 operations or 10.6%.

On average there were 49.3 scheduled nighttime operations per day in 2018 vs. 48.7 in 2017. 2018 had increases in the 5:00 AM hour and 10:30 PM hour but decreases in the 11:00 PM and 12:00 AM hours. The 3:00 AM and 4:00 AM hours were within 15 scheduled flights total for

the whole year. It's important to note that scheduled time is not actual time. With pushback, deice and taxi there can be significant differences between runway time and gate time. There was more than ½ flight difference in the 1:00 AM hour between 2017 and 2018.

Co-Chair Hart, Delta, asked what kind of contribution the added weight from passengers has on the aircraft altitude versus other environmental factors such as temperature and headwinds. **Juffer** responded that the impact is far less than that of the environmental factors. **Representative Olson, Minneapolis**, mentioned that 28% of all nighttime arrivals and 29% of all nighttime departures are over parts of South-West Minneapolis. Considering that those areas are highly populated, there should be routes that are less populated for nighttime routes to utilize. **Juffer** responded that there are limitations to what is possible in regards to runway use. The most heavily used runway for arrivals was 30L, which is over a less populated area and whenever ATC is able, they will use the opposite flow configuration to reduce activity over more densely populated areas. **Dana Nelson, Technical Advisor**, added that with the development of Runway 17, the intention was never to use it as frequently or instead of Runway 12R. **Chair Miller, Eagan**, asked if there could be more balance between the parallel runways. **Juffer** responded that it's a question to bring up with the FAA. **Hart** added that at the last meeting the FAA mentioned favoring 12R due to safety reasons. **Representative Goss, Delta**, mentioned that as a pilot, he'd rather land on 12R because it's longer and the light systems are better. **Nelson** added that during the nighttime hours, aircraft seem to be coming from the West Coast, with that information, ATC is telling them to arrive on the South parallel runway.

5. Eagan Mobile Noise Monitoring Study Plan

Dana Nelson, Technical Advisor, provided an update on the mobile noise monitoring study for the City of Eagan. The Eagan Airport Relations Committee (ARC) sent the NOC a mobile noise monitoring request and it was approved at the September 2018 NOC meeting. The goals were to determine if gaps in the MSP Remote Monitoring Tower coverage area existed and if two monitors, located next to I-35 E were in an ideal location. There are eight RMTs located in Eagan, and with a map, Nelson showed the group their proximity to one another and in relation to I-35 E. Nelson also compared the number of recorded events to the number of actual aircraft flight tracks that overflew the area. RMT 25 and 37 were the focus of discussion; the purpose is to compare their data to that collected by the mobile noise equipment. The study start date is projected to be May 1, 2019 and data collection will conclude after two weeks. The data will be presented at the July 9, 2019 Eagan ARC meeting and again at the July 17, 2019 NOC meeting. The list of criteria for the mobile noise monitoring equipment locations lead to choosing two sites, Thomas Lake Park and Mueller Farm Park.

The data collected from the mobile noise monitors and the permanent monitors will be assessed. Based on the comparison of aircraft noise levels and community noise levels, it will then be determined if gaps in recording exist. This data will not result in residential sound insulations eligibility, nor will it change the annual noise contours at MSP.

6. Evaluate Noise Management Benchmarking Study Findings and Considerations

Dana Nelson, Technical Advisor, reviewed the 2018 process of hiring HMMH to conduct a noise management benchmarking study. The consultant identified three categories related to best practices for airport noise offices: Transparency, Responsiveness, and Collaboration.

Based on this information and the airports included in the study, HMMH identified the MAC Noise Office as being a forerunner in the industry in all three categories.

There were three considerations HMMH presented to help improve the MAC Noise Office best practices.

- Take noise complaints from non-residential addresses
 - The office made that change and will place the update on the website.
- Live – stream NOC meetings
 - This topic requires a large technology investment to upgrade the conference room and the MAC CIP does not include room upgrades at this time. Other efforts were made to ensure the NOC meeting became more accessible through the reformatted public input process and offering evening meetings.
- Provide real – time alerting to the FAA for established noise abatement procedures to increase compliance and awareness
 - MAC regularly reports compliance with four noise abatement procedures and in December 2017, developed and implemented a dashboard to alert staff and ATC about real time excursions from the voluntary noise abatement procedures.

7. 2019 NCAA Final Four Aircraft Activity Update

Dana Nelson, Technical Advisor, told the NOC that the NCAA 2019 is being held at USBank Stadium, in Minneapolis, MN. Therefore, an expected increase in aircraft activity will start on Wednesday, April 3rd and end the following Tuesday on Tuesday, April 9th. MSP anticipates about 100 more private flights and charter flights will bring in an additional 10-15 flights during the event. As with the Super Bowl, low flying helicopters may be seen from the ground and high rise buildings in and around Minneapolis from the end of March to the first week of April.

The MAC expects arrivals will peak in the hours before the Semifinal games on April 6th and departures will peak after the National Championship game on the 8th; departures will then flow into the 9th as well. 40k-50k people are expected to fly out of MSP during the peak departure day on April 9th. The MAC reliever airports are expected to see an increase in activity as well as MSP.

MAC staff created and distributed fact sheets with this information for MSP and the reliever airports regarding the NCAA. **Nelson** shared that they will be posted on the MAC Noise website, available at the Winter Listening Session, and will be distributed at the March NOC meetings.

8. Announcements

- **Chair Miller, Eagan**, announced that Representative Goss, Delta, will be resigning from the NOC and expressed appreciation for his partnership and dedication to the group.
- Winter Listening Session, Wednesday, January 23, 2019 @ 7:00 PM, MAC General Offices, Lindbergh Conference Room

9. Adjourn

A motion to adjourn was requested by **Chair Miller, Eagan**, moved by **Representative Miller, Mendota Heights**, and seconded by **Representative Moos, UPS**.

The meeting adjourned at 2:37pm.

The next meeting of the NOC is scheduled for **Wednesday, 20 March, 2019 at 1:30 PM**

Respectfully Submitted,

Amie Kolesar, Recording Secretary