



MSP NOISE OVERSIGHT COMMITTEE MEETING MINUTES

Wednesday, 19th of September 2018 at 1:30pm

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, 18th of July 2018, in the Lindbergh Conference Room at the MAC General Office. Chair Hart called the meeting to order at 1:34pm. The following were in attendance:

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

Staff: D. Nelson; B. Juffer; A. Kolesar; B. Ryks

Others: J. Gundlach – City of Inver Grove Heights; M. Hall – Signature; C. Thorkildson – Eagan ARC; Annette Peterson – Apple Valley; S. Henry – Eagan; M. Brindle – Edina City Council; S. Heegaard – City of Saint Paul; J. Axmacher – Eagan ARC; J. Munser – Mendota Heights; S. Devich – City of Richfield; A. Nemcek – City of Rosemount; M. Nolan – City of Minneapolis; L. Moore – City of Bloomington

Before starting, **Chair Miller, Eagan**, announced guest speaker, Doug Christensen, would present before MAC CEO, Brian Ryks, due to Christensen needing to catch a flight. **Miller** also announced that the Eagan mobile noise monitoring request would be moved up in the agenda to accommodate time restrictions for members and guests.

1. Review and Approval of the July 18, 2018 Meeting Minutes

Chair Miller, Eagan, asked if there were comments or objections to the July meeting minutes, seeing none, she asked for a motion. A motion to approve was moved by **Representative Hart, Delta**, and seconded by **Representative Martin, Bloomington**. The minutes were approved unanimously.

2. Review of Monthly Operations Reports: July and August, 2018

Brad Juffer, Assistant Technical Advisor, In July, MACNOMS recorded 36,785 operations and 38,124 operations in August. The July count is a 2.3% reduction from July 2017 with the August count showing a 1% reduction, this equates to 1,267 fewer flights than July and August of 2017.

Year to date operations through August 31 were at 274,485. This is a reduction of nearly 5,300 flights from 2017 or a reduction of 1.9%.

Between 10:30 pm and 6:00 am, there were 2,465 flights in July and 2,512 in August. The July figure is up 119 operations (5.1%) from July 2017 while the August number is 299 operations (13.5%) more than August 2017. There have been 728 more night flights thus far in 2018 compared to the same time period of 2017. This is a 4.2% increase from 2017 or 3 additional flights per night.

There were 74,909 operations recorded at MSP in July and August. After May and June saw a South Flow dominance, the airport configurations shifted back to a more balanced use in July and August. The first priority runways, according to the Runway Use System (RUS) were used 36% of the time during July and August, combined with the 17% for Priority 2 equates to a more traditionally reported 53.3% use for high priority runways. Priority 3 was used almost entirely during 1 hour of the two months. On August 16th from 2:45 PM to 3:50 PM, Runway 22 was used for 31 departures and 22 arrivals due to gusty winds out of the southwest (210°) and a thunderstorm to the southeast of the airport.

Juffer reiterated that the airport had balanced use of the flows during the previous two months. The splits between north/south/mixed flows ended at 40/41/11 for July and August, last year that split was 32/48/11. This departure from 2017 allows the unbalance from May and June to be partially offset. 11% of time was in Mixed Flow, 135 of the 145 hours were Mixed A (arrivals and departures on 30L and 30R with departures on 17) with 10 hours reported as Mixed B (arrivals and departures on 12L and 12R with arrivals on 35).

Juffer displayed a graph to illustrate MSP carrier jet usage and reported that the top 10 Carrier Jet aircraft types represent 83% of all traffic at MSP. All 10 of those aircraft have Stage 4 and/or Stage 5 noise levels.

In July, there were 14,453 complaints filed and an additional 16,643 complaints about MSP flights in August. The complaint count in July is 1,840 fewer than 2017 while the August number is 84 fewer complaints than 2017. Year to date complaints are down by 17,670 from 2017 a 16.5% reduction. In July, the complaints were filed from 553 locations and in August they were filed from 650 locations. In 2017, those numbers were a very similar at 557 for July and 615 in August.

Juffer displayed a diagram illustrating the locations and complaint totals. Of the 553 locations that filed a complaint in July, 333 of them also filed a complaint in August while 220 did not. On the flip side, of the 650 locations that filed a complaint in August, 317 of them did not file a complaint in July. The customers that remain engaged from one month to the next also file more complaints than average.

Looking at the information spatially, 26 locations (10%) of areas of the community filed more than 300 complaints or roughly 5 per day. On the opposite end, 114 locations filed less than 8 complaints or roughly 1 per week. The top 10 locations filed 13,876 complaints in July and August; 637 locations filed 10 or less complaints in July and August.

Juffer moved on to sound monitoring: aircraft events occurred for 448 hours in July and roughly 472 hours in August. Overall, this is a 4.25% reduction in the time above 65 decibels

attributable to aircraft for July and August compared to 2017. The 92,738 events above 65 decibels for July and 98,182 events in August is also a reduction from the same months in 2017 by 1.2% or 2,400 fewer events.

Regarding noise abatement procedures, the Runway 17 Departure procedure was used 99.7% in July and 99.1% in August. There were 51 jets west of turn-point in August: 22 on August 3rd, 14 on August 24th and 5 on August 26th because of thunderstorms in the area. The Eagan/Mendota Heights Departure Corridor was used 96% of the time in July and 98% in August. The use of the Crossing-in-the-Corridor procedure was 36% and 34% during the day and 47% and 42% at night during July and August, respectively.

Representative Olson, Minneapolis, commented on the large number of complaints and the balanced runway use in August. **Olson** continued that the RUS numbers looked good on paper but at the end of August, it shifted to a south flow. She asked **Juffer** if there's a reason why there are so many complaints even when the runway use is balanced. **Juffer** responded that the complaint numbers are similar to that of August in 2017, albeit still high. August is typically a busier travel month and that contributes to higher complaints as well as the nighttime operations this year. Looking at complaint locations, there are still a select number of locations that continue to file the vast majority of complaints while a greater number of locations are filing fewer complaints as a whole. **Olson** responded that regardless, 650 locations filing a complaint is a high number. **Juffer** agreed that while the number is high, it's lower than the number in the past.

3. Public Comment Period

Chair Miller, Eagan, introduced the new public comment process since the bylaw change at the previous meeting. There were no speaker cards filled out and no public comments were made.

4. Guest Speaker: Boeing ecoDemonstrator (Doug Christensen, ecoDemonstrator Program Leader at Boeing Commercial Airplanes) *originally item 5

Dana Nelson, Technical Advisor, introduced Doug Christensen, Boeing's Associate Technical Fellow and the Test Vehicle Program Manager for ecoDemonstrator technology demonstration vehicles. The remainder of Doug's biography was included in the meeting packet.

Doug Christensen, Boeing Commercial Airplanes, thanked the committee for allowing him to present the innovations and technologies that Boeing is bringing forward. **Christensen** stated that the aviation industry supports 62.7 million jobs globally and while this is a great impact, it comes with a lot of responsibility. With increased demand, Boeing takes the responsibility of integrating new aircraft into the market, while not disrupting communities, very seriously. Boeing has predicted a need for over 41,000 new airplanes in the next 20 years; just under 6,000 will be retained fleet, 17,500 will be replacement fleet, and about 23,500 will be new fleet coming out to meet a growing market.

The most efficient, quieter family of new airplanes are the 777x, the 787, the 737 Max, and the 747-8. All of these aircraft have a reduction in fuel use and thus CO₂ emissions, they also all have a smaller noise footprint. Those improvements are being met by using composite fuselage, utilizing modern high lift devices, using chevrons on engines, using higher bypass ratio engines, and with product improvement, that allows FAA to make approaches more

efficient. Airplane improvements have allowed the 85 dBA range to decrease significantly and be reduced to almost just the area the airport is located on. **Co-Chair Hart, Delta**, asked if Christensen had dBA ranges for aircraft that is most often seen at MSP, more narrow body aircraft. **Christensen** didn't but said he would work with the noise office to provide that info. In addition to airport operations, Boeing is paying attention to the goings on in airspace throughout the world. They're looking at global navigation systems and ways to optimize flight paths so as to reduce fuel consumption, emissions, and noise.

Christensen touched on the evolution of advances that allowed aircraft to fly quietly, the list ranged from non-directional beacons in 1940, to required navigation performance in the 1990s, and to NextGen in the 2020s. Part of this evolution process for Boeing, means utilizing a quiet technology demonstrator flying over a surface with hundreds of microphones. This allows the filming technology to pinpoint exactly where the noise is coming from on the aircraft.

The ecoDemonstrator Program procures an aircraft every year and outfits it with the latest noise reducing technologies that Boeing has been creating, and tests its efficiency. **Christensen** covered the demonstrator program in 2012, 2014, 2015, 2016, and 2018. Over the last 5 programs, 140 technologies were tested, about a third of them are in products today. **Representative Olson, Minneapolis**, asked if the GLS approach allows Boeing to use a different glide slope. **Christensen** responded yes, because you can program the approach in and you're not reliant on an ILS beam. GLS is more about the system at the airport, it replaces the ILS system. A Synthetic Instrument Landing System, SILS, goes on the aircraft and is called synthetic because the technology is making the aircraft think it's flying at an ILS beam and the pilot doesn't see a difference aside from realizing they're utilizing GPS rather than ILS.

Christensen said that in 2019, there may be two aircraft to test on as Boeing has 60+ technologies to test and demonstrate. He brought up this point to punctuate Boeing's dedication and investment to sustainability and noise reduction. At the close of the presentation he asked for questions and **Olson** asked about an earlier slide and its mention of high lift devices and what that means. **Christensen** responded that the trailing edge flaps of a 747 has four components, some of the flaps cause a lot of noise. Reducing the flaps to be just one, reduces noise from those flaps. **Olson** asked if the team was doing anything related to altitude gains on departure. **Christensen** responded that yes they are and the current 787 has increased climb performance to get it to where it needs to be for neighborhoods around an airport. **Olson** then asked if there were options for retrofitting older aircraft. **Christensen** responded that a new design was tested with NASA to reconfigure the internal structure of an engine to reduce noise. **Nelson** followed up to **Hart's** question earlier about the certificated noise level for the 737Max with a Leap engine and it is at about 24.3 dBA below a Stage 3 aircraft certification.

5. **Guest Speaker: MAC/MSP Update (Brian Ryks, MAC Executive Director/CEO)**

*originally item 4

Brian Ryks, MAC Executive Director/CEO, presented the annual update and discussed the restructuring that has occurred as well as the enhanced focus on community engagement and outreach. **Ryks** mentioned the new division, Strategy and Stakeholder Engagement, and the VP of that division, Naomi Pesky.

Ryks presented the current members of the MAC Commission. The MAC is celebrating its 75th anniversary in 2018 and **Ryks** commented on the foresight the regulating boards had at

the time of origination. He then touched on the legislated purpose of promoting efficient, safe, and economical air commerce; to develop the full potentialities of the metropolitan area as an aviation center; and to minimize the environmental impact from air transportation and the public's exposure to noise and safety hazards around the airport. **Ryks** stated everyone takes the MAC Mission of "Connecting You to Your World" and the Vision of "Providing your Best Airport Experience" to heart. When the airport system was established, it consisted of only Minneapolis-St Paul International, but the evolution of the relievers has been very effective to relieve congestion and support air transportation access to the entire Twin Cities area. **Ryks** continued on by discussing the employees at the MAC and the system of operations that runs much like a small city. A video was played to display the collaboration efforts of staff and surrounding committees to train for emergency procedures.

MSP saw a record-breaking passenger year in 2017 with 38,034,341 passengers and increased operations by just under 1.5%. Thus far in 2018, passengers are up by just under 1% and operations are down 2.4%, which means the trend of larger aircraft is continuing. MSP continues to be in the lower quarter of hub airports in regards to cost per enplaned passenger. MSP remains a main hub for Delta although since 2007 the percentage of MSP domestic seats has dropped from 79% to 69% and that's due to an uptick in Southwest and Sun Country seats as well as the start of Ultra Low Cost Carriers (ULCC). Since 2016, 11 airlines added a total of 50 additional routes from MSP and now MSP has competitive air service on 58 of its total 164 direct routes. Sun Country has started the transition into becoming an ULCC and recently announced new non-stop flights to Nashville, New Orleans, Santa Barbara, Belize, and St. Kitts & Nevis. JetBlue is a new carrier at MSP and has three times daily service to Boston. On April 1, 2019, Delta will begin its first ever direct service from MSP to Seoul, South Korea. Just the week before this meeting, **Ryks** said he was in Dublin for the announcement that Aer Lingus was launching non-stop service effective July 8, 2019.

Ryks introduced the recent improvements at MSP by showing a video which showcased the new Intercontinental Hotel that opened on July 30, 2018. In addition to that, MSP has opened 50 new retail shops and restaurants in the last 3 years. There are many local venues distributed through these new shops to give travelers a taste of Minnesota's local cuisine culture. By the year 2022, the T1 ticketing and baggage claim levels will be completely remodeled. Space will be added, elevators and escalators will be aligned for efficiency, and services will be more centrally located. MSP is also working with Delta, American, and United Airlines by testing automated baggage check. The Silver Parking Ramp construction started in 2016 and will have space for 5,000 vehicles with improved auto rental facilities. The ramp is scheduled for completion in 2020.

Ryks transitioned into recognizing MSP for winning the award of "Best Airport in North America" by the Airport Service Quality Survey, two years in a row for the 25-40 Million Passenger Category. The Air Transport Research Society awarded MSP, for the second year in a row, as the Most Efficient Airport in North America, also in the 25-40 Million Passenger Category.

Moving on to economic growth, **Ryks** discussed the total economic output by reliever airports. The six reliever airports contribute to a combined \$756 million in total economic output and support more than 3,600 jobs. **Chair Miller, Eagan**, thanked Ryks for attending and **Co-Chair Hart, Delta**, thanked Ryks for his ongoing support of the NOC.

6. Eagan Mobile Noise Monitoring Study Request *originally item 7

Dana Nelson, Technical Advisor, introduced a mobile noise monitoring request from the City of Eagan. **Nelson** displayed the goals of the request as:

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

The noise team determined the goal is realistically achievable, that the monitoring will benefit a large section of the community exposed to aircraft noise and that current monitoring data is inadequate for the requested analysis. The noise team will be specifically evaluating RMT 25 and 37.

This request was prompted by the Eagan Airport Relations Commission, ARC, and the main concern is related to Runway 17 departure operations. The data collected in the mobile noise monitoring devices and the 39 RMTs do not go in to the noise contour development because the annual contour is required by the FAA to use the federally-approved modeling software. This mobile noise monitoring effort is included in the 2019 budget for the noise office. MAC staff will work in close collaboration with Chair Miller and the Eagan ARC and report back to the NOC after data is collected and analysis is performed.

Chair Miller, Eagan, thanked Nelson and recognized two members from Eagan ARC that were present, she then opened the floor for NOC members with questions. **Representative Hoffman, Saint Louis Park**, wanted to clarify that MAC funding allows for occasional studies like this to occur. **Nelson** confirmed that money in the annual budget is allocated for a study like this and that the rental of one noise monitoring unit is about \$2,500 and there are typically a few requests annually. This particular request came in while the MAC was working through their annual budget process so the team was able to adequately prepare for it in the 2019 budget process. **Co-Chair Hart, Delta**, asked if the study came back to say that moving the RMTs was beneficial, would the plan be to then move them permanently. **Nelson** confirmed that her team would see this as a possibility, however expanding the RMT locations is not being considered. **Representative Olson, Minneapolis**, expressed her support for this request and process.

IT IS REQUESTED THAT THE NOC MEMBERS VOTE ON THE MOBILE NOISE MONITORING REQUEST, AND IF APPROVED, DIRECT MAC STAFF TO WORK WITH THE CITY OF EAGAN AND THE EAGAN AIRPORT RELATIONS COMMISSION TO DETERMINE THE MONITORING SET-UP, DURATION AND REPORTING.

The motion was made by **Co-Chair Hart, Delta**, and seconded by **Representative Hoffman, Saint Louis Park**. The motion was passed unanimously.

7. Review of the Eagan Listening Session *originally item 6

Brad Juffer, Assistant Technical Advisor, stated that on August 27th there was a special Listening Session at the Eagan Community Center, 40 residents attended and most were from Eagan. The meeting was also attended by representatives from FAA, Eagan Councilmembers and staff, Eagan ARC members, NOC members, and Minnesota congressional representatives. Councilmember Gary Hansen opened the meeting, then MAC staff, FAA, and Delta provided

answers to questions that Eagan ARC submitted prior to the meeting. The audience questions were largely focused on operations on 17/35.

Juffer stated that prior to this meeting, ARC had commented a lot on nighttime departures on Runway 17, so noise staff looked into that information, documented the increase, and worked with carriers and the FAA to discover why some of these departures were occurring. One reason is that Runway 17 is favored, even at night, and FAA identified a couple times that occurred. Other times it was due to pilot request, a shorter taxi time, or a request from cargo facilities. The FAA Air Traffic Manager for the MSP tower sent a memo to all controllers stating that unless there is an operational necessity, nighttime flights should use Runways 12L and 12R in accordance with the tower's standard operating procedures. This may include denying pilot requests, unless they communicate operational necessity. **Co-Chair Hart, Delta**, thanked the noise office and FAA for working together. **Chair Miller, Eagan**, thanked them as well and stated that this helps groups like ARC realize that they do have an impact and the transparency maintains trust.

8. Review Final MSP Noise Management Benchmarking Study

Dana Nelson, Technical Advisor, introduced the full Benchmarking Study report from HMMH, and listed the link and stated that it's on the MAC Noise website.

The report contents include:

1. Airport Noise Background
2. Overview of Noise Management Categories
3. Benchmarking Study Methodology and Results
4. Conclusion and Findings

Since the analysis presentation at the last NOC meeting, there was additional analysis to compare the reported cost of residential noise mitigation programs with publicly accessible population data. HMMH did this by using the 2010 public census data. HMMH determined that the analysis did not show a strong correlation between program cost and population surrounding airports. MSP reported the highest program cost but has the 7th largest population within a 1 mile radius of the airport, the 6th largest population within 3 miles of the airport, and the 3rd largest population within 5 miles of the airport.

Nelson stated that at the last meeting, **Co-Chair Hart** requested examples of established or stated goals by Standing Noise Committees/ Roundtables. **Nelson** shared some examples and noted most were general and related to a committee charter, work plan, or mission statement and most were really general. Some of the items are comparable to the items in the NOC Bylaws.

Best practices were identified and in October, this information will be shared with other airports in a conference. The best practice items all fell in to three main categories, Transparency, Responsiveness, and Collaboration. The benchmarking study lists three considerations and all three are included in the 2019 Draft Work Plan for NOC consideration.

1. Take noise complaints from non-residential addresses;
2. Live stream NOC meetings;
3. Provide real-time alerting to the FAA for established noise abatement procedures to increase compliance and awareness.

9. Draft 2019 Work Plan

Dana Nelson, Technical Advisor, presented the 2019 Draft NOC Work Plan. The items are:

1. Review Residential Noise Mitigation Program
2. MSP Noise Program Specific Efforts
 - a) 2018 Actual Noise Contour Report and First Amendment to the Consent Decree Noise Mitigation Program Eligibility
 - b) Improve MACNOMS for a better user experience
 - c) MSP Fleet Mix and Nighttime Operations Assessment
 - d) Status of FAA Center of Excellence/ASCENT, TRB and FICAN Research Initiatives
 - e) Update on Converging Runway Operations at MSP
 - f) Update on the MSP Long Term Comprehensive Plan Update and Associated Stakeholder Engagement
 - g) Update on the FAA's Survey to Re-Evaluate Noise Measurement Methods
 - h) Evaluate the Noise Management Benchmarking Study findings and discuss consideration
3. Continue to Review Input Received from Public Input Meetings as Possible Agenda Items

Nelson mentioned that the October Listening Session will be a brainstorming session for members of the public to come up with suggestions for the 2019 NOC Plan. The November NOC meeting will include a requested Committee action to adopt the 2019 Work Plan. Following, the NOC Co-chairs will bring the Work Plan to the MAC's Planning, Development, and Environment Committee meeting in December.

10. Announcements

Fall Listening Session is Wednesday, October 24, 2018 at 7pm at the MAC General Offices in the Lindbergh Conference Room.

11. Adjourn

A motion to adjourn was requested by **Chair Miller, Eagan**, moved by **Representative Martin, Bloomington**, and seconded by **Representative Dmytrenko, Richfield**.

The meeting adjourned at 3:31 p.m.

The next meeting of the NOC is scheduled for **Wednesday, 28 November, 2018 at 6:30PM**

Respectfully Submitted,
Amie Kolesar, Recording Secretary