



**METROPLITAN AIRPORTS COMMISSION
MSP NOISE OVERSIGHT COMMITTEE
MEETING MINUTES**



Wednesday, 19 November 2014, 1:30pm
MAC General Offices Building – Lindbergh Conference Room

Call to Order

A regularly-scheduled meeting of the MSP Noise Oversight Committee, having been duly called, was held Wednesday, 19 November 2014, in the Lindbergh Conference Room at the Metropolitan Airports Commission General Offices. Chair Hart called the meeting to order at 1:36pm. The following were in attendance:

Representatives: K. Weaver, T. Fields, J. Oleson, D. Miller, B. McQuillan, J. Hart, E. Petschel, B. Underwood, C. Grawe, T. Fitzhenry, L. Olson

Staff: L. Pielen, C. Leque, N. Ralston, D. Probst, M. Kilian, P. Rehkamp, J. Lewis

Others: B. Gubrun – Edina Energy & Environment Commission; A. Swenson – City of Edina; A. Yeske – Federal Aviation Administration; A. Malik – Edina; K. Strand – Apple Valley; A. Petersen – Apple Valley; M. Doran – Richfield; B. Friedman – Minneapolis; T. Link – City of Inver Grove Heights; E. Ziring – Office of L. Palmisano, Minneapolis City Council; S. Devich – City of Richfield; C. Carrino – Edina; D. Boberg – City of Bloomington; S. Neal – City of Edina; K. Aaker – City of Edina; C. Costello – City of Richfield; J. Bennett – City of Edina; J. Miller – City of Mendota Heights; M. Park – City of Sunfish Lake; P. Dmytrenko – City of Richfield; B. Hoffman – City of St. Louis Park; L. Grotz – Edina; S. Thompson – MSP FairSkies Coalition; D. Amundson – MSP FairSkies Coalition; K. Shannen – Edina; S. Soule - Edina

1. Review and Approval of the 17 September 2014 Meeting Minutes

IT WAS MOVED BY REPRESENTATIVE FITZHENRY AND SECONDED BY REPRESENTATIVE UNDERWOOD TO APPROVE THE MINUTES OF THE 17 SEPTEMBER 2014 MEETING.

The motion carried by unanimous vote.

2. Review of Operations Report Summary: September and October 2014

Dana Nelson, Assistant Manager, Noise – Environment & Planning, said there was a 25% increase in the number of complaints filed in September 2014 compared to September 2013, and a 24% increase in the number of complaints filed in October 2014 compared to October 2013. She said the number of complainants decreased by 2% in September 2014 compared to September 2013, and decreased 7% in October 2014 compared to October 2013.

D. Nelson said total aircraft operations decreased 6% in September 2014 compared to September 2013 and decreased 6% in October 2014 compared to October 2013. She said total air carrier jet operations were consistent in September 2014 with levels in September 2013 and decreased 1% in October 2014 compared to October 2013.

D. Nelson said regional jet aircraft accounted for less than 50% of the air carrier jet fleet composition in September and October 2014. She said the balance of the jet fleet composition is made up of manufactured Stage 3 aircraft. She said less than 0.1% of the fleet mix is made up of modified Stage 3 aircraft.

D. Nelson said passenger counts in 2014 compared to 2013 continue to be higher, which indicates passenger load factors are increasing and that airlines are operating more efficiently with larger aircraft and fewer operations.

D. Nelson said nighttime operations (10:30pm – 6:00am) increased 21% in September 2014 compared to September 2013 and increased 21% in October 2014 compared to October 2013.

D. Nelson said Runway 12R received the highest percentage (35%) of nighttime (10:30pm – 6:00am) arrival operations in September 2014, and the highest percentage (36.9%) of nighttime (10:30pm – 6:00am) departure operations in September 2014. She said Runway 30L received the highest percentage (45.3%) of nighttime (10:30pm – 6:00am) arrival operations and the highest percentage (36.4%) of nighttime (10:30pm – 6:00am) departure operations in October 2014. She said that 41% of the time winds in September were favorable for a south flow at MSP. She said that 53% of the time winds in October were favorable for a north flow at MSP. She noted Runway 35 had 0.4% of nighttime (10:30pm – 6:00am) departure operations, and said this was the result of four departure operations off that runway due to very strong winds out of the north on 30 October 2014.

D. Nelson presented information on September and October 2014 nighttime (10:30pm – 6:00am) nighttime scheduled vs actual carrier jet operations. She noted this information was requested by NOC community representative members and is included in the Technical Advisor's Report. She noted that the biggest differences between scheduled and actual operations are seen in the "shoulder" hours of 10:30pm-12:00am

and 5:00-6:00am. She reminded Committee members that this is often the result of delays in the National Airspace System that push arrivals into the nighttime hours at MSP. She also noted that some scheduled nighttime operations are not reported to the Official Airline Guide, which is the source for the scheduled nighttime operations, resulting in a higher number of actual operations compared to scheduled. **Chair Hart, Delta Air Lines**, suggested including a breakdown of arrival and departure operations in the data going forward and a way to better differentiate carriers in the graph. **D. Nelson** said some regional carriers and chartered operations account for the “other” category in the data presented. **Representative Petschel, Mendota Heights**, asked if chartered operations are operated by carriers or just by charter companies. **D. Nelson** said they are operated by both.

D. Nelson said there were 4,348 Runway 17 carrier jet departures, and 99.8% compliance with the Runway 17 Carrier Jet Departure Procedure, in September 2014. She said there were 3,033 Runway 17 carrier jet departures, and 99.9% compliance with the Runway 17 Carrier Jet Departure Procedure, in October 2014.

D. Nelson said 97.1% of operations using the Eagan-Mendota Heights Departure Corridor remained in the Corridor in September 2014, and 97.9% remained in the Corridor in October 2014.

D. Nelson said 70% of carrier jet departures used the Crossing-in-the-Corridor Procedure during the nighttime hours of 11:00pm – 6:00am during September 2014, and 61% used it in October 2014. She said 33% of carrier jet departures used the Procedure during the daytime hours of 6:00am – 11:00pm during September 2014, and 33% used it in October 2014.

Representative Olson, Minneapolis, noted that the number of structural disturbance complaints seems to be increasing and asked if that was related to upgauging of aircraft. **D. Nelson** said that staff have noticed the increase in structural disturbance complaints, and noted that “structural disturbance” may mean different things to different people. She noted that wind and weather are factors in how aircraft run-up noise is transmitted in the communities. **Olson** asked if staff could present information on the trends at the next meeting. **D. Nelson** said she would.

3. Presentation: Air Traffic Control, Elaine Buckner, MSP Air Traffic Control Tower

Elaine Buckner, Air Traffic Control Tower Manager - MSP, gave a presentation on air traffic control. Highlights of the presentation included:

- Buckner has been with the Federal Aviation Administration for over 32 years
- There are two FAA facilities at MSP – the Control Tower and the Tracon (radar room) – that work together to manage air traffic at MSP

- MSP is ranked the 16th busiest airport in the US, with over 400,000 operations per year
- MSP Tower and Tracon are staffed 24/7 by over 120 air traffic controllers, traffic management controllers, supervisors, managers and support personnel
- MSP Tower and Tracon primary duty is to provide a safe, orderly and expeditious flow of traffic to MSP and the surrounding airspace; “safe” = ensuring aircraft separation and system safety in the air and on the ground; orderly = applying air traffic control rules to ensure system integrity, which supports safety; expeditious = maintaining an efficient throughput of arrivals and departures, keeping demand and capacity in balance, which supports safety
- Acceptance/arrival rate = number of arrival operations that can be accommodated given conditions; weather conditions, visibility, winds at surface and aloft have an impact on acceptance rate; rate is entered into traffic control system based on runway configuration in use
- Demand at MSP is generally greater than 15 operations every 15 minutes; there are periods of higher demand that limit runway configuration choices; if demand exceeds capacity, flow control measures are implemented; demand and capacity at MSP is continually assessed throughout the day; when flow control measures are implemented, arrival banks at MSP are extended as a result
- During a north flow configuration, Runway 35 cannot always be used for arrivals because of departures off of Runway 30L; if an arrival on Runway 35 needed to conduct an unplanned go-around it could conflict with a departure off of Runway 30L; Air Traffic Control has procedures, simulations and trainings in place to manage not being able to use Runway 35 for arrivals during a north flow configuration
- Runway use is based upon operation destination; aircraft depart and turn toward their destination and away from aircraft departing and turning from other runways; there are occasions when aircraft are departed from a non-destination appropriate runway due to deicing constraints, for example (gridlock on the airport surface and an aircraft cannot be taken to the appropriate runway for departure within the window of time specified after deicing)

Representative Olson, Minneapolis, asked why a south flow configuration is more efficient than a north flow configuration when three runways are being used for arrivals. **Buckner** said that arrival demand is prioritized over departure demand because more time, space and handling are required for arrivals than for departures. **Representative Petschel, Mendota Heights**, asked if use of Continuous Descent Approach will affect how Air Traffic Control (ATC) handles arrivals. **Buckner** said there should not be much difference within the confines of MSP airspace. **Representative Miller, Eagan**, asked if there has been any quantifiable difference in operations since ATC began more strictly adhering to taxiing aircraft to runways based on destination of flight. **Buckner** said it is

difficult to know because ATC did not track the number of aircraft departed from non-destination of flight runways prior to the 2010 near-miss incident, and because passenger demand plays a part – i.e., if passenger demand for flights to Florida, for example, is high and therefore there are more operations to Florida there will be more departures from a particular runway. **Buckner** said an operation may be taken to a non-destination of flight runway due to aircraft type, size and weight, noting that Runway 30L is longer than Runway 30R. She noted that a southern destination operation departed off of Runway 30R will still make a left turn out to head south.

Olson said she would like more information on how many aircraft, and which aircraft, use Runway 30L for departures due to their type and/or weight. She noted that reports show a change in runway use and that residents are feeling the impact of that change. She asked **Buckner** what percentage of operations from MSP go to southern destinations versus northern destinations. She said it is likely most destinations are to the south, which favors the use of Runway 30L for departures, and that large aircraft use Runway 30L for departures as well. She said this is an unsustainable situation for residents and that a way needs to be found to make good use of the Runway Use System. **Olson** asked that causes an operational conflict. **Buckner** said a Runway 30R departure turning to head south would be coordinated with the Runway 30L controller so that a conflicting operation off of Runway 30L would not occur. **Olson** asked if, in that scenario, the Runway 30R departure could be turned east and then eventually headed south. **Buckner** said that would not be practical because of arrivals to MSP coming in on those same runways and that the arrival airspace is protected. She added that ATC strives for standardization to enhance the orderly and safe flow of air traffic, and that non-standard procedures impact that.

Petschel asked if **Buckner** is concerned by the “work load” for controllers on Runways 30L and 12R if current operational trends continue. **Buckner** said no, and that the work load would be managed by opening another controller position.

Buckner noted that, in a southeast flow, arrivals are to two runways and departures are from three runways but mainly off of Runway 12L and Runway 17. She said that, in this configuration, Runway 17 has no arrivals to it so aircraft can be departed off that runway more quickly. At the same time, arrivals to Runway 12R can occur more efficiently because there are fewer departures off that runway with which they would have to be sequenced. **Miller** asked if, during this configuration, aircraft overfly the area between the extended ends of Runways 17 and 12L as they make their turns to destination heading. **Buckner** said they do.

Buckner said MSP generally runs at a high-demand rate from 7:00am – 10:00pm and that runway configuration is chosen to provide the best capacity throughout the day. She said it is possible to change configuration during the day but that ATC does not do so unless necessary. She said switching configurations creates issues within the traffic control system.

Buckner noted that the RNAV arrival procedures for MSP, the STARs, will be published on 5 March 2015 and will be implemented on 23 March 2015. She said there are no RNAV departure procedures for MSP. **Olson** said there is an expectation that use of the RNAV STARs will increase arrival efficiency and, therefore, the number of arrival operations; she asked if that is true and how that change could be quantified. **Arne Yeske, FAA Air Traffic Control**, said that the use of RNAV STARs will not increase the number of arrivals. **Buckner** said the arrival acceptance rate would stay approximately the same.

Buckner said that MSP is a very safe airport and that ATC prides itself on the safety. She said the local ATC procedures do not take away from the national rules on separation and that any changes to local procedures can only enhance national rules.

Petschel thanked Buckner for meeting with the Committee and noted the Committee would like to hear from ATC at other times during the year to continue to learn and partner.

Olson thanked Buckner as well, and noted that information is important to the Committee members for their communications with residents. She noted that the Runway Use System has existed since 1972 and has been adjusted at times to move aircraft away from the most-populated areas to areas zoned for noise. She said the RUS is the most common sense and reasonable options for noise mitigation, and that it has been considered a noise mitigation tool and is listed in the Part 150 as such. She said the Long-term Comprehensive Plan for MSP anticipates Runway 30L being used 20% of the time. **Olson** said Minneapolis would like for the RUS to continue to be a meaningful and common sense tool and work together to make it work. She said it is not working now. She said it is obvious MSP can operate in a southeast flow and that if the RUS were being used as it should be, MSP would almost always operate in a south flow, which is the opposite of what the ATC prefers to use when possible. She said it is clear the RUS is not being used much. She said when the RUS is used at night, Minneapolis takes the bulk of operations. She said the idea is to move operations from where there are a lot of people. She said Minneapolis would like to work with the MAC and the FAA to see what can be done.

4. Draft 2015 NOC Work Plan

John Nelson, Technical Advisor, reviewed elements of the Draft 2015 NOC Work Plan and the 2014 NOC Accomplishments, which were provided to Committee members in today's meeting packet, with the Committee. He noted that if the Committee approves the Plan today, the Committee co-chairs will present it for approval at the MAC Planning Development & Environment Committee meeting on 1 December 2014.

Representative Olson, Minneapolis, asked if an altitude study with penetration gates could be added to the Plan. **J. Nelson** noted that a discussion of aircraft altitude graphics is included as an agenda item for today's meeting.

IT WAS MOVED BY REPRESENTATIVE MILLER AND SECONDED BY REPRESENTATIVE OLESON TO RECOMMEND APPROVAL OF THE 2015 NOC WORK PLAN TO THE MAC PLANNING DEVELOPMENT AND ENVIRONMENT COMMITTEE.

The motion carried by unanimous vote.

5. MSP Fleet Mix Report

Dana Nelson, Assistant Manager, Noise – Environment & Planning, gave an overview of the Annual MSP Aircraft Fleet Mix Assessment. She noted that in 2009 manufactured Stage 3 aircraft accounted for the highest portion of the MSP fleet mix in 2009, regional jets accounted for the highest portion from 2010-2013, and that manufactured Stage 3 have accounted for the highest portion in the second half of 2014. She said there are a few hushkit aircraft that operate at MSP each month.

D. Nelson said use of the A320 and the A319, both quiet manufactured Stage 3 aircraft, has increased at MSP in the past 12 months, as has use of the quieter 737-700, 737-800 and 737-900 aircraft. She said distinct changes in the use of the CRJ and the CRJ-200 shown on the "Regional Jets by Type October 2012-September 2014" graphic are the result of switching from an MLAT feed for flight track information to a NextGen feed. She said use of CRJ-900 aircraft has increased about 36% but that, overall, use of regional jets is down about 4%. She noted that use of regional jets increased from 2001-2011, with the exception of a small decrease in usage from mid-2006 to early 2007. She said there has been a decrease in their use in the past year. She noted that the use of larger (70+ seat) regional jets has increased over the past few months.

Representative Olson, Minneapolis, noted that the upgauging trend is a concern and that Minneapolis would like to monitor carefully the impacts of that trend. She said the larger aircrafts are quieter than older, large aircraft but that they are noisier than the CRJs and that they fly lower because of their weight. She said the CRJs could make turns earlier than the larger aircraft. She said the combination of the use or larger, louder aircraft and the use of a north flow configuration whenever possible is a bad combination. **Representative Petschel, Mendota Heights**, said it would be helpful for the Committee to have information on the different aircraft profiles in use at MSP. **Representative Underwood, Delta Air Lines**, said it is not true in all cases that larger aircraft are louder aircraft. He said the upgauging of aircraft has reduced the total number of operations. **Olson** said she is aware the number of operations has gone down but that Minneapolis is concerned about potential impacts of larger aircraft. **Underwood** noted that 76-seat Embraers and the CRJ-700 and CRJ-900 are quieter

than the CRJ-200s they are replacing. **Representative Fitzhenry, Richfield**, asked if more 777 aircraft are going to be in use at MSP. **Underwood** said one of the flights to Narita, Japan that had been using a 747 was now using a 777. **Chair Hart, Delta Air Lines**, noted that the 777 is quieter and does not require the use of Runway 4.

6. St. Louis Park and Edina Noise Monitoring Report

John Nelson, Technical Advisor, reminded Committee members that at the 8 May 2014 meeting, the Committee had approved conducting a noise study in the cities of St. Louis Park and Edina to assess baseline aircraft noise levels. He noted that the study was conducted 22 August – 4 September and utilized three monitoring locations, two in Edina (sites 102 and 103) and one in St. Louis Park (site 101). He noted that At-large Community representatives had input on the monitoring locations. He said arrivals were the predominant operations in St. Louis Park and departures were predominant in Edina. He said there were 1601 aircraft noise events in St. Louis Park during the study period, and 1066 in Edina.

J. Nelson said the monitoring location in St. Louis Park recorded a total of 4 hours, 36 minutes and 52 seconds of time above decibel threshold (65 dB) for arrivals. He said the two monitoring locations in Edina recorded a total of 51 seconds of time above decibel threshold (65 dB) for arrivals. He said the St. Louis Park location recorded a total of 37 minutes and 56 seconds of time above decibel threshold (65 dB) for departures. He said the Edina locations recorded a total of 3 hours, 33 minutes and 38 seconds of time above decibel threshold (65 dB) for departures.

J. Nelson said the predicted Integrated Noise Model (INM) DNL for the St. Louis Park location during the two-week study period was 54.7 dBA, and the actual measured DNL for that location during the study period was 54.7 dBA. He said the predicted INM DNL for site 102 in Edina during the two-week study period was 51.3 dBA, and the actual measured DNL for that location was 49.0 dBA. He said the INM DNL for site 103 in Edina during the two-week study period was 48.4 dBA, and the actual measured DNL for that location was 47.7 dBA.

J. Nelson said the average daily DNL level at the St. Louis Park location (site 101), during the two-week study period, was 54.7 dB; the average daily DNL level at site 102 in Edina was 49 dB; and the average daily DNL level at site 103 in Edina was 47.7 dB.

Representative Olson, Minneapolis, said the numbers are high, particularly in St. Louis Park. She noted there was variation in the numbers in Edina depending on the day of the week, and she said the study was conducted during a time of year when departure altitudes are not as low as they are in the summer. She said she believes that correlates to more noise. She said residents have a legitimate concern and that the situation should continue to be monitored. She said residents in St. Louis Park and Edina have a major stake in what goes on at MSP. **Olson** asked if it's possible that residents are hearing more than one aircraft at a time and, if so, if that impact is being

accounted for in noise measures. **J. Nelson** said that while the noise event from one aircraft operation can last for up to 45 seconds, and as one operation tails off and another becomes more prominent, at the distance from the airport the monitoring locations were situated a number of variables can have an impact upon a resident's experience of a noise event. **J. Nelson** noted that aircraft are not departing within 30 seconds of one another, nor are they arriving within 30 seconds of each other. **Olson** said she thinks it is something to consider for the future. She said that would like to ensure that St. Louis Park and Edina continue to participate in the Committee and that the Committee finds meaningful ways for their voices to be heard, and that they have stronger voices, going forward.

Representative Fitzhenry, Richfield, asked if the mobile noise monitors used for the St. Louis Park and Edina Noise Monitoring Report correlated with the permanent Remote Monitoring Towers (RMTs). **Dana Nelson, Assistant Manager, Noise – Environment & Planning**, said the study did validate the RMTs. She said all of the aircraft noise events recorded at the mobile monitors were also recorded by the RMTs.

7. Aircraft Altitude Graphics

Dana Nelson, Assistant Manager, Noise – Environment & Planning, reminded Committee members that development of aircraft altitude graphics was an item on the Committee's 2014 Work Plan. She noted that the MAC has a number of tools that can be used to produce altitude graphics:

- Animated Flight Tracker replays on www.macnoise.com
- Altitude gate penetration charts
- Seasonal average altitude comparisons
- GIS altitude gradient maps
- GIS altitude grid maps

D. Nelson provided an overview of each of the tools.

8. Review Status of FAA Center for Excellence/PARTNER, TRB and FICAN Initiatives

John Nelson, Technical Advisor, reminded Committee members that staff compiles an annual summary of projects and research being conducted by the FAA Center of Excellence/PARTNER, TRB and FICAN, and that the summary was included in today's meeting packet. He noted that staff will follow several of the projects during the next year, including "NextGen – Guidance for Engaging Airport Stakeholders" and "Enhanced AEDT Modeling of Aircraft Arrival and Departure".

9. Aviation Environmental Design Tool Update

John Nelson, Technical Advisor, noted that release of the FAA's Aviation Environmental Design Tool (AEDT), which is intended to replace the Integrated Noise Model software used by the MAC and its consultants to prepare MSP noise contour maps, has been moved to 29 May 2015. He said the noise component has not yet been refined, which is the reason for the delay. He noted that the MAC and its consultants will use the existing INM software to prepare the actual 2014 noise contour map due by 1 March 2015. **J. Nelson** said that, when it is released, it is not anticipated that the AEDT will produce maps that are strikingly different from those produced using the INM. He said he has contacted the FAA to see if a guest speaker could attend a Committee meeting in 2015 to provide information and an update on the AEDT but has not yet received a reply.

10. Review of 28 October 2014 Public Input Meeting

John Nelson, Technical Advisor, said six people attended the fourth quarter 2014 Public Input Meeting, and that two people spoke on the record at the meeting. He said questions and concerns raised at the meeting included:

- Departing aircraft altitude trends
- Departure flight tracks to the north and west of MSP
- Determination of eligibility for noise mitigation programs
- Location of the Remote Monitoring Towers

Written responses will be sent to those residents who commented on the record, and the written responses will be posted on the Noise Program Office website, www.macnoise.com.

The next Public Input Meeting will be held at 7:00pm on Tuesday, 27 January 2015 at the Richfield Municipal Center, 6700 Portland Avenue South, Richfield MN.

11. Public Comment Period

Joni Bennett, Edina City Council, expressed appreciation for the conducting of the St. Louis Park and Edina Noise Monitoring Report, and said she looks forward to the report information being presented at Edina City Hall. She noted that she has been reviewing the monthly operations reports and said that there are Remote Monitoring Towers that do not measure the decibel levels shown on pages 23-24 of the St. Louis Park and Edina Noise Monitoring Report, and do not measure decibel levels above 70. She said the 80 and 90 decibel levels shown in the report are significant. **John Nelson, Technical Advisor**, noted that the 90 dB measured on 26 August 2014 at the St. Louis Park location was the result of an Antonov A124 aircraft operation, and noted that that aircraft is one of the largest aircraft in the world.

The next meeting of the NOC is scheduled for Wednesday, 21 January 2015.

The meeting adjourned at 3:35pm.

Respectfully Submitted,
Christene Sirois Kron, Recording Secretary