



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



Wednesday, 16 July 2014, 1:30pm  
MAC General Offices Building – Lindbergh Conference Room

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**Call to Order**

A regularly-scheduled meeting of the MSP Noise Oversight Committee, having been duly called, was held Wednesday, 16 July 2014, in the Lindbergh Conference Room at the Metropolitan Airports Commission General Offices. Chair Hart called the meeting to order at 1:31pm. The following were in attendance:

**Representatives:** J. Oleson, K. Erazo, B. McQuillan, J. Quincy, D. Miller, B. Underwood J. Hart, E. Petschel, T. Fitzhenry, J. Bergman

**Staff:** L. Peilen

**Others:** A. Boettcher – St. Louis Park; S. Nienhaus – City of Burnsville; R. Agnew – Mendota Heights; S. Devich – City of Richfield; T. Link – City of Inver Grove Heights; L. Grotz – Edina; D. Sloan – Mendota Heights Airport Relations Commission; M. Doran – Richfield; C. Costello – City of Richfield; P. Dmytrenko – City of Richfield; M. Park – City of Sunfish Lake; J. Miller – City of Mendota Heights; D. Boberg – Bloomington; J. Bennett – City of Edina; J. Lindahl – City of Rosemount; L. Olson – City of Minneapolis; S. Neal – City of Edina

**1. In Memory of Tom Perillo, Delta Chief Pilot**

A moment of silence was observed for the passing of Tom Perillo, Delta Chief Pilot and former MSP Noise Oversight Committee member.

**2. Review and Approval of the 8 May 2014 Meeting Minutes**

With regard to Item #5 of the 8 May 2014 meeting minutes, **Representative Miller, Eagan**, asked if there was an update on the FAA's response to questions raised about

the use of Runway 17 compared to the parallel runways and about the use of Runway 17/35 if Terminal 2-Humphrey is expanded in the future. **John Nelson, Technical Advisor**, noted that Elaine Buckner, FAA Control Tower Manager at MSP, will be unavailable for several weeks and that the issue will be on the September meeting agenda.

**IT WAS MOVED BY REPRESENTATIVE QUINCY AND SECONDED BY REPRESENTATIVE BERGMAN TO APPROVE THE MINUTES OF THE 8 MAY 2014 COMMITTEE MEETING AS AMENDED.**

**The motion carried by unanimous vote.**

### **3. Operations Summary Report: April, May, June 2014**

**Dana Nelson, Assistant Manager, Noise – Environment & Planning**, said there was an approximately 70% increase in noise complaints in April 2014 compared to April 2013; an approximately 14% increase in May 2014 compared to May 2013; and an approximately 12% increase in June 2014 compared to June 2013. She noted that there were more complaints from areas south of MSP during June 2014. She said the number of complainants increased 54% in April 2014 compared to April 2013; increased 29% in May 2014 compared to May 2013; and decreased 19% in June 2014 compared to June 2013.

**D. Nelson** said total aircraft operations decreased 3.4% in April 2014 compared to April 2013; decreased 5.5% in May 2014 compared to May 2013; and decreased 6% in June 2014 compared to June 2013. She said air carrier jet operations increased 1.4% in April 2014 compared to April 2013, while May and June 2014 were flat compared to May and June 2013. She said there's been a significant decrease in the number of turbo prop operations. She said the use of regional jets decreased in April, May and June 2014 compared to those same months in 2013. She said there has been a movement away from using regional jets and toward using manufactured Stage-3 aircraft for operations, particularly the A320.

**D. Nelson** said nighttime operations (10:30pm – 6:00am) decreased 9% in April 2014 compared to April 2013; increased 12% in May 2014 compared to May 2013; and increased 14% in June 2014 compared to June 2013. She said there were more adverse weather conditions in May and June 2014 than in May and June 2013 that caused delays.

**D. Nelson** said Runway 30L received the highest percentage of arrival operations in April and May 2014, and that Runway 12R received the highest percentage of arrival operations in June 2014. She said Runway 12R received the highest percentage of departure operations in April and June 2014, and that Runway 30L received the highest number of departure operations in May 2014.

**D. Nelson** said there was 99.2%, 99.6% and 99.7% compliance with the Runway 17 Carrier Jet Departure Procedure in April, May and June 2014, respectively.

**D. Nelson** said 81.6%, 94.1% and 94.4% of operations using the Eagan-Mendota Heights Departure Corridor remained in the Corridor in April, May and June 2014, respectively. She said strong winds in April were likely the reason for aircraft being outside of the Corridor that month.

**D. Nelson** said 41%, 53% and 46% of carrier jet departures used the Crossing-in-the-Corridor Procedure during the nighttime hours of 11:00pm – 6:00am during April, May and June 2014, respectively. She said 26%, 33% and 34% of carrier jet departures used the Procedure during the daytime hours of 6:00am – 11:00pm during April, May and June 2014, respectively.

#### 4. Presentation: “Aviation Innovations”, Delta Air Lines

**Captain Mark Bradley, Chief Technical Pilot – Delta Air Lines**, gave a presentation on aviation innovations. Highlights of the presentation included:

- The goal of NextGen is to create the most efficient air transportation system possible in the United States to provide a better experience for the traveling public
- NextGen leverages technological advances in communication, navigation and surveillance
- Newer generation aircraft are built with advanced composite materials that make them lighter and stronger, which leads to improvements in fuel savings and reductions in emissions generation
- Various materials and components on aircraft have been replaced with electronic components that make the aircraft lighter and more efficient
- The addition of winglets on aircraft allow for additional lift, reduced drag and reduced approach speeds, which create fuel savings and reduction in noise
- Modifying and modernizing cockpits reduces weight and the number of parts that need to be maintained, and enables precise flight trajectories
- Since the late 1960s, the advent of aircraft engines with higher bypass ratios (which increases the percentage of air that goes through an engine but not through its combustor), aircraft noise levels have dropped by 20 decibels.
- Delta uses the minimum thrust practical for a typical departure to reduce noise footprints and the time between engine overhaul.
- Flight Management Computers enable more efficient flight profiles
- Next steps are to use technological improvements to create efficient descent profiles that are quieter and more fuel efficient, and to create departure routes that allow fast climbs to cruise altitude, thereby reducing noise impacts

**Representative Miller, Eagan**, asked how these technological advancements relate to Stage-4 requirements. **Bradley** said they are not directly related, but noted that 81% of Delta's fleet is Stage-4 compliant. **Representative Petschel, Mendota Heights**, asked if there are implications for the implementation of NextGen with the aging of the satellite fleet. **Bradley** said the satellites used for aviation GPS are the same as those used by the military, and that 24 of the 31 satellites are guaranteed to work 95% of the time, which means there is potential for a gap in coverage. He said a new generation of satellites is being readied for launch. He noted there are backup systems on aircraft in the event satellite GPS capabilities are interrupted. **Chad Leque, MAC Director of Environment**, asked if there is a competitive advantage for airports that are PBN/RNAV compatible. **Bradley** said he believes there would be, to an extent, but that RNAV should be beneficial. **Joni Bennett, Edina City Council**, asked how wide an RNAV track is. **Bradley** said a track is as wide as the technology on an aircraft allows it to be, and that newer aircraft are more accurate than older aircraft.

## 5. Annual MSP Nighttime Operations Assessment 2012-2013

**Dana Nelson, Assistant Manager, Noise – Environment & Planning**, noted that the Annual MSP Nighttime Operations Assessment 2012-2013 focused on:

- Average daily nighttime operations from 2004-2013
- MSP all nighttime and carrier jet nighttime operations runway use summary for 2013 and 2012
- MSP INM nighttime (10:00pm to 7:00am) operations runway use summary for 2013 and 2012
- A breakdown of the top 15 nighttime carrier jet operators for 2013 and 2012
- A breakdown of the fleet mix for the top 15 nighttime airlines for 2013 and 2012
- Average daily MSP nighttime operations by hour for 2013 and 2012
- A comparison and breakdown of scheduled nighttime operations and the fleet mix of the scheduled operations for 2013 and 2012
- A comparison of the scheduled nighttime operations vs. actual nighttime operations for 2013 and 2012

**D. Nelson** said there were 46.2 average daily nighttime (10:30pm – 6:00am) operations at MSP in 2013, making it the third-lowest in 10 years for nighttime (10:30pm – 6:00am) operations. She said there were 73.2 average daily nighttime (10:30pm – 6:00am) operations in 2007. She said there were 98.2 average daily INM nighttime (10:00pm – 7:00am) operations in 2013, well below the 2007 forecast of 123.3 operations. She noted there were 0.1 average daily INM nighttime (10:00pm – 7:00am) hushkit operations in 2013, well below the 2007 forecast of 21.7 hushkit operations.

In summary:

- In 2013 nighttime operations increased 6.2% from 2012 (carrier jet nighttime ops increased 4.8% over the same time period).
- MSP had a total of 16,879 nighttime operations in 2013 (46.2 average daily nighttime ops) – in 2012 there were 15,901 nighttime operations (43.5 average daily nighttime ops).
- The top 15 nighttime jet operators represent 94.3% of the total nighttime carrier jet operations in 2013. (Top three carriers: Delta Air Lines, Sun Country, America West) In 2012 the top 15 represented 95.3%. (Top three carriers: Delta Air Lines, Sun Country, America West)
- Of the top 15 nighttime jet operators in 2013, 100% of the operations were flown with Stage 3 Manufactured aircraft – 99.8% in 2012.
- The most prevalent time period for nighttime operations in 2013: 11:00 p.m. to 12:00 a.m. (13.3 average daily night ops – 28.7%) □ 5:00 a.m. to 6:00 a.m. (10.8 average daily night ops – 23.5%) □ 10:30 p.m. to 11:00 p.m. (10.8 average daily night ops – 23.2%)
- 7,466 scheduled nighttime flights for 2013 vs. 7,802 scheduled nighttime flights for 2012 (4.3% decrease)
- Average daily scheduled nighttime flights for 2013 was 20.5 vs. 21.4 for 2012
- Top three carrier scheduled nighttime ops for 2013: Sun Country: 1,453 (4.0 avg. daily, 19.5%); Delta Air Lines: 1,259 (3.4 avg. daily, 16.9%); US Airways: 1,156 (3.2 avg. daily, 15.5%)
- Actual nighttime carrier ops for 2013 (MACNOMS) – 15,074 vs. scheduled nighttime ops for 2013 (OAG) – 7,466

**D. Nelson** said there are typically twice as many actual nighttime operations as what were scheduled, due to delays across the system as a result of weather and other operational factors. She said 2013 was a little higher than 2012 for nighttime operations at MSP but still significantly lower than what was forecasted in 2007.

## 6. MAC Noise and Operations Monitoring System (MACNOMS) Validation Study

**John Nelson, Technical Advisor**, reminded Committee members that the MAC owns and operates MACNOMS, which includes 39 Remote Monitoring Towers (RMTs) that are equipped with sound level meters/data-loggers, software that processes NextGen flight track data, and software that correlates noise events measured at the RMTs to actual flight tracks. He said the network is a complex system that is the backbone of the technology used by the MAC Noise Program Office for reports, maps, statistics and aircraft noise event tracking.

**J. Nelson** said eight RMTs were selected for use in the validation study, and that field measurements were taken at those RMTs on April 7, 10, 11, 14, 15, 17, 21 and 22,

2014. He noted that a noise event attributed to an aircraft must sustain a sound level greater than 65 decibels for eight seconds. He noted that factors such as community noise, high winds, human activity and animals may contribute to noise events, and that multiple aircraft may generate events at the same time.

**J. Nelson** said that, for the noise-to-noise comparison part of the study, the portable sound level meter used in the study correlated to the RMTs within 0.9 decibels, on average.

**J. Nelson** said airfield observations took place from the Terminal 2-Humphrey parking ramp on April 23, 24 and 25, 2014. He said there was 97.1% correlation between observed aircraft operations and what MACNOMS recorded. He said military operations are scrubbed from the data feed to MACNOMS, which may account for less than 100% correlation as military operations were observed during the field observations.

**J. Nelson** said, that, during the validation study, at all RMTs:

- 181 aircraft operations were correctly identified as aircraft events
- there were 11 multiple-aircraft operations correctly identified as aircraft events
- there were 18 community noise sources correctly identified as community events
- there were 4 multiple-aircraft operations that were correctly identified as aircraft events but tagged to the other aircraft
- there were 3 aircraft operations incorrectly identified as community events
- there were 11 community noise sources that were incorrectly identified as aircraft events
- there was 1 wind noise event incorrectly identified as an aircraft event
- there were 30 wind noise events incorrectly identified as community noise events

**Representative Fitzhenry, Richfield**, noted that he participated in the field observation at RMT 28, and that 7 of the 11 community noise events incorrectly identified as aircraft events were the result of large dogs barking in proximity to the RMT.

**J. Nelson** noted that the 2014 validation study shows that 92.1% of noise events correlate with MACNOMS flight track data, and that 97.1% of observed operations correlate with MACNOMS flight track data.

**Representative Petschel, Mendota Heights**, asked for clarification as to whether or not RMTs are used to generate the INM noise contour maps. **Dana Nelson, Assistant Manager, Noise – Environment & Planning**, said that that is correct; no noise events from the RMTs are used in the calculations that generate the INM noise

contours. She said the RMTs are used to validate DNL values as part of the INM inputs. **Petschel** asked if it was the case that past studies between the INM maps and RMT values have shown high correlations between the two. **D. Nelson** said that is correct.

## 7. Public Comment Period

There were no public comments.

## 8. Item Not on the Agenda

**Representative Bergman, At-large Representative**, noted that MnDOT went before the City of Apple Valley with regard to an October 2014 bid for a project on the Cedar Avenue Bridge that will include bridge joint replacements, new guardrails, new walkways and new paint. Traffic will be affected for 4-6 weeks in 2015. The City of Apple Valley suggested MnDOT communication information on the project to the MAC so that any necessary steps can be taken with regard to travelers getting to and from MSP during the project.

**Representative Petschel, Mendota Heights**, asked Committee community representatives to meet informally after the meeting to schedule an August community representative meeting.

**Petschel** noted that the next Public Input Meeting will be held on Tuesday, 29 July 2014 at 7:00pm at the Mendota Heights City Hall.

The next meeting of the NOC is scheduled for Wednesday, 17 September 2014.

The meeting adjourned at 2:49pm.

Respectfully Submitted,  
Christene Sirois Kron, Recording Secretary