MSP NOISE OVERSIGHT COMMITTEE
MEETING MINUTES
Wednesday, 17th of May 2017 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, 17th of May 2017, in the Council Chambers at the Richfield Municipal Building. Chair Hart called the meeting to order at 1:30pm. The following were in attendance:

Representatives: P. Dmytrenko; K. Erazo; T. Foster; A. Moos; J. Miller; L. Olson; D. Miller; J. Hart; G. Goss; J. Oleson; J. Bergman; D. Nelson; T. Harris

Staff: D. Nelson; B. Juffer, C. Leqve; A. Kolesar; G. Warren; B. Ryks; E. Valencia

Others: R. Ditto – FAA; S. Heegaard – City of St. Paul; T. Link – City of Inver Grove Heights; C. Jacobson – City of Mendota Heights; J. Wulf – FAA; S. Devich – City of Richfield; J. Smith –City of Mendota Heights; L. Moore – City of Bloomington; D. Sloan – City of Mendota Heights; R. Schumacher – SCA Flight OPS; M. Brindle – City of Edina; B. Hoffman – City of Saint Louis Park; D, O'Leary – City of Sunfish Lake; M. McNeill – City of Mendota Heights; L. Gortz – City of Edina; A. Nemcek – City of Rosemount; J. Daddio – City of Eden Prairie; K. Aaker – City of Edina

1. **Review and Approval of the March 15, 2017 Meeting Minutes**
   Chair Hart, Delta, requested a motion to approve the minutes from the March 2017 NOC meeting. **Representative Miller, Eagan** made the motion with a second from **Representative Dmytrenko, Richfield** and the motion was passed unanimously.

2. **MSP Optimized Profile Descent (OPD) Results**
   Dana Nelson, Technical Advisor, provided a background of the OPD application prior to introduction. MSP has a nontraditional approach to how NextGen procedures were implemented, as a result of the NOC's leadership. In 2005 the NOC requested a test from the FAA and while that was denied, it started the process for MSP to obtain NextGen procedures. In 2014 a consensus was on the horizon from MAC leadership, FAA, City Leaders, and the surrounding communities. At that time, the NOC passed a resolution to support RNAV arrival procedures with OPD descents at MSP. In March 2015 RNAV procedures began and MAC staff started testing to quantify the benefits of the procedures.

Brad Juffer, Assistant Technical Advisor, provided an overview of the application and a review of the results. The application identifies which flights follow the OPD and in conjunction with fuel data from the airlines. The creation of this application was possible through collaboration with the MAC, FAA, and airlines. The noise office team acquired flight track data from the FAA, which was necessary to obtain the entire descent segment of each flight. As a result, flight track data covering seven different states was obtained and analyzed. This expansive dataset was collected from March 1, 2014- March 31, 2017 and included over 1 billion individual data points that needed to be evaluated. From that data, the team created OPD metrics and fuel data metrics, the data from both metrics was aggregated and analyzed

The output included descent statistics from the top of descent 4-dimensional point to 8,000 feet. Cruise statistics were analyzed because it created a normalization of data between pre-RNAV and post-RNAV data sets. Fuel burn rate by aircraft, by runway, and by meters flown were also determined.

Juffer explained that his team determined that any arrival with 10% or more of its descent in level flight is not an OPD, and therefore a conventional approach. Anything less than 10% is considered an OPD. Non-jet aircraft and aircraft arrivals that never reach 12,000 feet of altitude are considered conventional approaches.

Juffer reported that since the first day of implementation, 79.4% of capable aircraft have flown an OPD. On average, every OPD arrival at MSP saves about 15.1 gallons of fuel. When taking that number and multiplying it by the flights on an OPD, an average of 2.8 million gallons of fuel are saved annually. Since implementation, that equals about 5.8 million gallons of fuel saved. Taking those numbers and equating them into a carbon reduction equivalent means 28,000 metric tons of CO_2 have been reduced annually and since implementation the reduction amount is at 57,000 metric tons. **Chair Hart, Delta,** asked if the application is proprietary to the MAC or if the algorithms were open sourced. **Juffer** responded that outside of the runway and fuel use data the program was built on open source data and open source technology.

3. Guest Speaker: MSP Update by Executive Director/CEO, Brian Ryks

Brian Ryks, MAC Executive Director/CEO, provided an update on MSP, beginning with an overview of MAC. **Ryks** discussed the MAC's governance structure, its status as a public corporation as designated by the Minnesota Legislature and its funding. MSP's key purposes from the MN Legislature are to promote efficient, safe, and economical air commerce; to develop the potentials of the metro area as an aviation center; and to minimize the environmental impact of air transportation. The MAC Board consists of a chairman and 12 commissioners, all of whom serve staggered, four-year terms. **Ryks** continued by reviewing and expanding on the MAC's mission and vision.

MSP is the 16th busiest airport in North America (by passengers) and is Delta's second largest hub. In 2016 there were 413,279 landings and take offs at MSP. This was the first increase since 2013, however that number is significantly lower than the peak in 2004 at 541,093 landings and take offs. While actual aircraft operations numbers are lower, passenger numbers are going up, that means aircraft are at capacity and larger aircraft are generally replacing smaller ones.

Ryks reported on traveler demographics and that nearly two-thirds of travelers fly five or fewer times a year. It was also reported that about 52% of all travel through MSP is for leisure, 60% of travelers are female, and the age range of the most frequent traveler is 55-64.

Ryks went on to report air service development. In 2016 - 2017, ten airlines added a total of 24 additional routes which means MSP now has competitive air service on 53 of its 155 direct routes.

Ryks continued with the airport's sustainability efforts and stated that MSP has the most extensive mitigation program in the United States. In 2016 MAC/MSP achieved Phase 1 in the Airports Carbon Accreditation Program and are working on achieving Phase 2 in 2017. Another achievement for reducing environmental impact is the use of Optimized Profile Descent (OPD) and this profile has gained national attention and is collaborative success. In 2016, MSP added four gates at Terminal 2 and that project included the first green roof at MSP.

Ryks continued his presentation with recent and future improvements in the "Reimagine MSP" campaign. In the last year, the international arrivals area at T1 was expanded, T2 saw new car rental facilities, a quick ride ramp was added to T1, and nearly 50 new concessions venues were added.

Looking to the future, it is projected that by 2035, MSP will serve more than 50 million passengers annually. In order to accommodate that increase in passengers, MAC plans to invest $1.6 billion in airport improvements over the next several years and then $2.5 billion by 2035. Some of those investments include a complete remodel of both ticketing and baggage levels at T1, escalator and elevator changes will be made at T1, amenities will be consolidated and centrally located, increasing natural light and better sight lines will be the focus for the upcoming upgrades and investments. Graves Hospitality and MAC are teaming up to develop a 300-room InterContinental Hotel and it will open in the summer of 2018. A skyway will connect T1 at Concourses A, B, and connect C to the hotel and this will expand to concourse G. A 5,000 space parking ramp is scheduled to start construction this summer.

Ryks reported that construction on these projects alone will generate more than 2,000 full-time equivalent jobs and in-total, the airport generates over $10 billion to the local economy.

Ryks concluded his presentation with recent accolades and awards, namely Airports Council International-North America named MSP the Best Airport in North America in its size category. MSP also won a World Airport Award from Skytrax for Best Airport Staff in North America.

4. Review of Monthly Operations Reports: March and April, 2017

Using the new Operations Summary Report, **Brad Juffer, Assistant Technical Advisor** highlighted that March 2017 had 36,235 operations and April 2017 had 33,971. There were 2,441 nighttime operations in March and 2,143 in April. In March 42% of the time was spent in North Flow, 50% in South Flow and 2% in Mixed Flows. In April that split was 44%/43%/7%. **Juffer** reported these months in 2016 had significantly higher use of South Flow traffic, due to southerly winds and Converging Runway Operations.

Regional jets represented 42% of operations in March and 40% in April. Narrow body jets increased from 54% in March to 57% of the operations in April.

Juffer went on to report aircraft noise complaints, stating 13,244 complaints were filed in March from 331 locations. In April, 13,907 complaints were filed from 407 locations. **Juffer** reported the average number of complaints per household as well as operations per complaint and how it relates to when the new complaint system was launched in January 2017.

Noise levels at the 39 Remote Monitoring Towers were reported for March and April. Collectively, 481 hours of aircraft events over 65dBA were recorded in March and 509 hours in April. Those times each month equate to 93,250 noise events in March and 95,553 noise events in April. That equates to each operation producing about 48 seconds of time over 65dBA in March and about 54 seconds in April. On average, each aircraft operation produced 2.5 noise events in March and almost 3 in April; this means that on average, each operation had a noise event detected by about 3 different monitors and each operation created a noise event, on average, of about 18.6 seconds in March and 19.2 in April.

Runway 17 Departure Procedure was flown by 99.7% of departures in March and 99.6% of the departures in April. The Eagan-Mendota Heights Departure Corridor compliance was at 90.7% compliance in March and 88.5% compliance in April. The decrease in compliance per month is typical during this time of year with more northeasterly winds blowing the aircraft out of the corridor and to the south. The Crossing-in-the-Corridor procedure was used 28.8% of the time during daytime hours in March and 32.7% of the time at night. In April, it was used 32.7% of the time during the day and 43% of the time at night. In March, high priority runways were used 50.7% of the time. In April the high priority runways were used 52% of the time in April.

Representative Goss, Delta, asked **Juffer** if data related to the number of complaints per household will still be available. **Juffer** responded that that information can be made available in future presentations.

Representative Olson, Minneapolis, said she would like to see a map that illustrates the locations of the households with noise complaints so over the span of a few months, the locations can be compared for greater understanding. **Olson** asked for clarification on the RUS numbers. **Juffer** responded that in March, 51% of departures used the 12s or 17 and 51% of arrivals used the 30s or 35. **Juffer** followed by saying that complaints by location are in the report and the interactive report but he can also add that information to the presentation for the NOC.

5. FAA Converging Runway Operations Update

Kurt Mara, FAA ATC Manager, reported that January 5th, 2017 was when the shift was made to using 30L/R for departures and there has been a drop in departure delays since then. June 1st, 2017 the FAA will implement a Converging Operating Runway Display Aid (CRDA). This tool will allow ATC to align and sequence departures more efficiently. CRDA has been used in the past on runway 17/22 operations and was used in 2008-2010 when the parallel runways were under construction. This process will now be used whenever MSP is on a north flow with arrivals on Runways 30L, 30R and 35 with departures on Runways 30L and 30R. The goal for CRDA is to help arrivals on 35 line up with arrivals on 30L so the departure gap is not missed due to the arrival/departure window (ADW). After an aircraft arrives on 30L, the controller will taxi the next departure onto the runway to wait for a departure clearance. Simultaneously, an arrival on Runway 35 will be just entering the ADW. When the arrival on 35 exits the ADW, the departure on 30L will be cleared with enough separation for the next arrival to Runway 30L.

For now, there is not a way to follow this procedure on 30R but during visual approach conditions, the goal will be to align the traffic on 30R and 30L. This process will help the departure gap for traffic departing on 30R as well as those departing 30L.

Mara provided clarification for **Representative Olson, Minneapolis** on the ghost plane and where it lines up.

Representative Jill Smith, Mendota Heights, asked how this procedure will help capacity at the airport. **Mara** responded that the overall capacity of the airport is sufficient and that the focus of this operation is not to increase capacity but to increase safety during short bursts of higher arrival and departure demand.

Representative Olson, Minneapolis, asked if using the CRDA encourages a preference of a North or South flow. **Mara** responded that there will always be certain factors based on season or time of year that will be a more determining factor of airport configuration. For now, the runway use percentages are not expected to change significantly. **Olson** followed up by asking Mara if there has been any change in the altitude in planes and **Mara** responded that he doesn't know of any changes that would have led to that occurrence. **Representative Goss, Delta,** followed up by saying that no, pilots will always prefer to climb faster. Delta pilots are flying bigger aircraft, so it's possible that the aircraft appear closer simply because they're larger. Larger planes can often be heavier and have heavier loads so it's possible that they're climbing slower but not regularly lower.

6. Delta Air Lines Fleet Mix Update

Representative Goss, Delta, presented the mainline fleet plan for Delta as of Spring 2017.

The Boeing 747 is set to retire by December 2017; however, none are scheduled through MSP. The Boeing 777 is currently being flown from MSP to Haneda, Tokyo (HND) and MSP to Paris, France (CDG) with a total of 18 in Delta's fleet.

Delta has an order of 25 Airbus A-350 aircraft with 15 to be delivered between 2017 and 2019. Currently, the airline does not plan to have regular flights from MSP. Delta has 32 Airbus A-330 -200/-300/-900 in its fleet with 25 on order for 2019-2022. These will mostly be on flights from MSP to Europe.

There are 82 Boeing 767 -300/-300ER/-400 in Delta's fleet with regular flights from MSP to Europe and are expected to remain in Delta's fleet through 2020. There are 104 Boeing 757 -200/-300 in Delta's fleet, mostly flying domestically out of MSP.

There are 87 Boeing 737 -700/-800 aircraft and 75 Boeing 737-900 aircraft in Delta's fleet with 55 additional -900s on order to be delivered between 2017 and 2019. These aircraft fly mainly domestic flights from MSP. Delta has 125 Airbus A-319/320 aircraft and 19 A-321 aircraft in its fleet with an additional 112 to be delivered between 2017 and 2021. There are 91 Boeing 717 aircraft in Delta's fleet with no additional orders.

There are 65 McDonnell Douglas MD-90 aircraft in Delta's fleet and 116 MD-88 aircraft. These two aircraft types are out of production and Delta plans to retire all MD-88 aircraft by December 2020.

There is an order of 75 new Bombardier CS-100/300 aircraft, which the airline is expecting to take delivery beginning Spring 2018 and in service by Summer 2018. These are long range aircraft and extremely quiet.

Goss continued by reviewing technology and engine formations and how that factors in to a reduction in noise. Delta is focusing on up-gauging aircraft and reducing its carbon and noise

footprint. In the next 3 years, Delta is taking big steps towards the reductions of these impacts with quieter and more fuel efficient aircraft.

7. Interactive Reports Demonstration

Brad Juffer, Assistant Technical Advisor, stated that in March the Committee approved a Staff request to produce the new MSP Operations Summary Report that condensed 85 pages of reports down to a four-page summary of four sections: Operations, Complaints, Sound Monitoring, and Noise Abatement. This consolidation does not provide the level of detail that the community has grown accustomed to and as such, the Noise Office built a reporting application on its website.

Juffer provided a demonstration of the new reporting application and began by showing all the monthly reports from 2013 on are archived on the site and available for look-up. All current reports will be broken into four sections and online features are available on each page to assist in navigation and to increase the customers' access to detailed information. The Noise Office has a goal to launch this application for the May reporting cycle by June 12, 2017 and **Juffer** requested the NOC approve the new website interactive reporting capabilities and direct staff to discontinue the production of the monthly technical advisor's report, Eagan-Mendota Heights Corridor Report, Runway 17 Departure Analysis Report, Crossing-In-The-Corridor Analysis Report and the MSP Runway Use System Report. The motion was moved by **Representative Bergman, Apple Valley**, and seconded by **Representative Goss, Delta** and passed by a unanimous vote.

Representative Olson, Minneapolis, asked for clarification on complaint data, if it was by day or month and **Juffer** responded that it's per month. The data is exactly the same as in the previous reports. **Olson** asked if the colors used for wind flow on the RUS page could be changed and **Juffer** responded that the team opted out of that because there are conditions where the surface wind does not support the runway flow that was selected. There are times when other factors determine runway use and/or airport configuration.

Representative Jill Smith, Mendota Heights, asked for clarification on how you can tell what runway is in use during a specific wind flow; **Juffer** used the presentation to illustrate how to find that.

8. New Aircraft Noise Basics Videos

Dana Nelson, Technical Advisor, mentioned that a new aircraft noise basics video, *The MSP Noise Oversight Committee: Collaboration at Work*, was added to the MAC Noise website. This is the third video in a series of five videos to address common questions about aircraft-related topics. This video discusses the collaboration as well as the representation on the NOC.

9. Review of January 27 and April 19 Listening Sessions

Dana Nelson, Technical Advisor, reviewed both the Winter and Spring Listening Sessions. At the winter session, six residents attended. All resident questions were answered at the meeting, therefore staff did not prepare written responses.

19 residents attended the Spring Listening Session in Eagan, MN. All resident questions were answered at the meeting, therefore staff did not prepare written responses.

Presentation slides from both Listening Sessions are available at

http://www.macnoise.com/our-neighbors/msp-quarterly-listening-sessions
The next Listening Session will be on July 26th at 7pm in the Apple Valley Municipal Center.

10. Public Comment Period

Representative Bergman, Apple Valley, had a resident who intended to make a comment but due to the meeting length she needed to leave. **Bergman** requested that she be allowed to speak at the next meeting but allow the public comment period to be at the start of the meeting so as to be more sensitive to time restrictions.

11. Announcements

Representative Erazo, Sun Country, announced that she will no longer be serving on the committee. Sun Country designated her replacement to be Sun Country's Chief Pilot Todd Lawrence and the alternate will be the MSP Based Chief Pilot Ross Schumacher.

Representative Bergman, Apple Valley, announced that he will no longer be the At-Large Community representative. The At-Large Community members conducted elections for his replacement and Tom Link from Inver Grove Heights was selected to be the primary representative and the alternate will be Brian Hoffman from Saint Louis Park.

12. Adjourn

A motion to adjourn was requested by **Chair Hart, Delta,** moved by **Representative Bergman, Apple Valley,** and seconded by **Representative Oleson, Bloomington.**

The meeting adjourned at 3:45 p.m.

The next meeting of the NOC is scheduled for Wednesday, 19 July 2017.

Respectfully Submitted,
Amie Kolesar, Recording Secretary