



Metropolitan Airports Commission (MAC)

Minneapolis-St. Paul International Airport (MSP)
Noise Oversight Committee (NOC)
MAC General Office Building
Lindbergh Conference Room
6040 28th Avenue South
Minneapolis, MN 55450

NOC Committee Members

Dianne Miller – Co-Chair, City of Eagan Representative (Assistant City Administrator)
Jeffrey Hart – Co-Chair (Delta Air Lines)
Ryan Barette – Minnesota Business Aviation Association Representative
Pam Dmytrenko – City of Richfield Representative (Assistant City Manager)
Gordon Goss – Chief Pilot Representative (Delta Air Lines)
Todd Lawrence – Charter/Scheduled Operator Representative (Sun Country Airlines)
Tom Link – At-Large Community Representative (Inver Grove Heights City Staff)
Jay Miller – City of Mendota Heights Representative (Mendota Heights City Council)
Angie Moos – Cargo Carrier Representative (United Parcel Service)
Jon Oleson – City of Bloomington Representative (Bloomington City Council)
John Quincy – City of Minneapolis Representative (Minneapolis City Council)
Kyle Bronowski – At-large Airport User Representative (Endeavor Air, Inc.)

MEETING AGENDA

November 15, 2017 at 1:30 pm
MAC General Office Building
Lindbergh Conference Room

(Dianne Miller, City of Eagan, will be the acting Chairperson for the meeting)

***Note:** 1:00 to 1:30 – Committee Agenda Review Session
(NOC members only in the Stapp Conference Room)

1. 1:30 – 1:35 Review and Approval of the July 19 and September 20, 2017 Meeting Minutes
2. 1:35 – 1:50 Review of Monthly Operations Reports: September and October, 2017
3. 1:50 – 2:20 Response to MSP FairSkies Requests
4. 2:20 – 2:35 Annual MSP Fleet Mix and Nighttime Operations Report
5. 2:35 – 2:50 Vortex Generator Noise Monitoring Study
6. 2:50 – 3:10 Approval of 2018 NOC Work Plan, Meeting Dates and 2017 Accomplishments
7. 3:10 – 3:15 Review of October 25, 2017 Listening Session
8. 3:15 Public Comment Period
9. Announcements
10. Adjourn



**MSP NOISE OVERSIGHT COMMITTEE
MEETING MINUTES**

Wednesday, 19th of July 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, 19th of July 2017, in the Lindbergh Conference Room at the MAC General Office. Chair Miller called the meeting to order at 1:30pm. The following were in attendance:

Representatives: T. Link; J. Oleson; G. Goss; P. Vick; J. Hart; D. Miller; P. Dmytrenko; J. Miller; J. Quincy; R. Barette; T. Lawrence

Staff: D. Nelson; B. Juffer, C. Leqve; A. Kolesar; P. Mosites; P. Burke; M. Takamiya; J. Lewis; N. Ralston;

Others: A. Roth - City of Apple Valley; J. Aul - City of Bloomington; D. Langer-FAA; M. Doran – City of Richfield; M. Nolan – City of Edina; S. Fortier – FAA; A. Nemcek – Rosemount; M. Brindle – City of Edina; M. Regan-Gonzalez – City of Richfield; S. Devich – City of Richfield; D. Perry – FAA; J. Smith – City of Mendota Heights; D. O’Leary – City of Sunfish Lake;

Chair Dianne Miller made a motion to add agenda item number 7, an update on CRO from Kurt Mara, FAA. **Chair Hart, Delta**, made the motion with a second from **Representative Dmytrenko, Richfield**. The motion was passed unanimously.

1. Review and Approval of the May 17, 2017 Meeting Minutes

Chair Dianne Miller, Eagan, requested a motion to approve the minutes from the March 2017 NOC meeting. **Representative Hart, Delta** made the motion with a second from **Representative Oleson, Bloomington** and the motion was passed unanimously.

2. Nomination and Election of NOC Co-Chairs

Dana Nelson, Technical Advisor, introduced the nomination and election process for the user group and co-chair elections. **Representative Goss, Delta**, nominated Jeff Hart, Delta, for the co-chair election. A voice vote took place and Representative Hart was unanimously voted in, as co-chair, for a two year term. **Representative Oleson, Bloomington**, nominated Dianne Miller, Eagan, as co-chair, representing the community. A voice vote took place and Representative Miller was unanimously voted in as the co-chair for a two year term.

3. Review of Monthly Operations Reports: May and June, 2017

Brad Juffer, Assistant Technical Advisor, started by reporting 35,407 flights operated at MSP in May, a 3.1% increase from May 2016. In June, there were 36,292 operations, a 1.25% decrease from June 2016. Year to date operations at MSP are 203,598 which is currently 1.3% above YTD operations at this time in 2016.

There were 2,019 nighttime operations in May 2017 which is nearly an 8% increase from 2016. In June there were 2,264 nighttime operations which is a 6.5% decrease from 2016. Nighttime operations, year to date, are at 13,694; this number is an increase of 46 operations from this same time period in 2016.

In May 2017, MSP was in a South flow 37% of the time compared to 50% in 2016. MSP was in a North flow 43% of the time in May 2017 versus a 29% in 2016. In June 2017, MSP was in a South flow 33% of the time compared to 49% in 2016. June 2017, MSP was in a North flow 42% of the time compared to of 32% in 2016.

In May 2017 the fleet mix consisted of 41% regional jets, 56% narrow body, and 3% wide body aircraft. In May 2016 the breakout was 54% regional jets, 43% narrow body, and 3% wide body. June 2017 had a mix of 39% regional jets, 58% narrow body, and 3% wide body aircraft. June 2016 had 54% regional jets, 43% narrow body, and 3% wide body aircraft.

A total of 12,559 complaints were filed in May 2017 from 451 locations. In June 2017, 14,618 complaints were filed from 549 locations.

On average, there were 2.8 operations for every complaint in May 2017 and that number dropped slightly to 2.5 in June 2017. These numbers are slightly lower than they were in 2016, May averaged 3.1 operations per complaint and June saw 3.0. These numbers can be attributed to the rise in complaint totals but the operations numbers staying similar to that of 2016.

In response to a request from NOC members, the top 25 locations with complaints were shown on a map. In May and June of 2017, those particular 25 locations filed 69% of all the complaints. The top 5 locations filed 38% of all complaints and those locations are in Minneapolis, Inver Grove Heights, and Eagan.

According to MAC's 39 sound monitors, in May there were 514 hours with sound events over 65 decibels and in June that number dropped slightly to 482 hours with such events. The count of aircraft events over 65 decibels was 97,236 in May and 95,365 in June. On average, the time above 65 decibels per operation was 52 seconds in May and 48 seconds in June.

The average duration of each recorded sound event in May was 19 seconds and that average fell slightly to 18.2 in June.

Juffer then reported on the noise abatement procedure compliance, beginning with the Runway 17 Departure Procedure, noting that May had 99.9% compliance and June had 99.8% compliance.

The Eagan-Mendota Heights Departure Corridor experienced 90.7% compliance in May and 94.7% compliance in June. In May, 34 jets were north of the corridor and 233 were south of the corridor. Most of these events occurred on May 18th and May 20th due to weather. In June there were 37 jets north and 110 south of the corridor which mostly occurred on June 5th due to gusty winds.

The Crossing-in-the-Corridor procedure was used for 38% of the operations during the day in May and 37% in June. During nighttime hours, the crossing procedure was used 33% of the time in May (37 flights) and 53% in June (81 flights).

High priority runways from the Runway Use System were used 53.2% of the time in May and 52.9% of the time in June.

Representative Oleson, Bloomington, commented that many elements of the new reporting system are imperative but that he encourages the NOC and MAC to not lose sight that key elements, those crucial to residents, be easy to navigate within the website. **Juffer** responded that the report he gives at each meeting is, specifically, for the NOC. The website and the related operations reports are organized in a way that is intended to meet the needs of residents visiting the site for information.

Representative Quincy, Minneapolis, asked if it was possible to know which time of day the top five complaint locations registered complaints and whether they were related to arrivals or departures. **Juffer** responded that the aggregate data shows that the top hour is 8pm but 7am and 6pm also tend to have frequent complaints. Looking at the map you can see that the Eagan locations will be more related to departures of Runway 17, Inver Grove Heights will be related to departures on 17 and arrivals on 30L. **Quincy** responded that he would expect to see that data however resident communications are expressing disturbances from departures and that deviates from what has historically been typical. **Co-Chair Hart, Delta**, asked what the criteria is for a new location of a complaint. **Juffer** responded that it's defined as anyone who has set up an account online or anyone who has called from a location that hasn't received a complaint before.

4. Review of Residential Noise Mitigation Program Implementation

Dana Nelson, Technical Advisor, gave historical context for the mitigation program. From 1992-2006 everything within the 2007 forecast 65dB DNL noise contour was mitigated. Over 7,800 single family homes, over 1,300 multi-family units, and 18 schools were mitigated. In 2008, the initiation of the 2007 Consent Decree program began, which provided residential mitigation out to the 2007 forecast 60 dB DNL noise contour and initiated mitigation reimbursements. From 2008-2014 over 5,400 single family homes and almost 2,000 multi-family units were mitigated, and over 1,700 reimbursements were paid. Through the leadership of the NOC, the 2013 Consent Decree Amendment extended the mitigation program commitment to 2023. Moving forward, eligibility of homes are determined annually, based on actual noise contours developed for the preceding calendar year. Per the amended Consent Decree, a home will become eligible if it is located, for a period of three consecutive years in the actual 60-64 DNL noise contour, and within a higher noise impact mitigation area when compared to the original Consent Decree program. The MAC will begin providing noise mitigation to homeowners in the year following their determination of eligibility.

Pat Mosites, Mitigation Project Manager, explained the mitigation packages, and the status of the 2017 and 2018 programs. The 2017 mitigation program used the 2013/2014/2015 actual noise contours, which qualified 138 single-family and 88 multi-family homes for the Partial Noise Reduction Package. In collaboration with the City of Minneapolis, letters confirming home's eligibility were sent in June 2016. Three homeowner orientation meetings were held in March, design visits began in March, construction on the first homes began in June, and all participating 2017 Mitigation Program homes will be completed by December 31, 2017.

Regarding the 2018 Mitigation Program, the 2014/2015/2016 actual noise contours qualified 164 single-family homes for the Partial Noise Reduction Package and 123 single-family homes for the Full 5 dB Reduction Package. In collaboration with the City of Minneapolis, letters, questionnaires, and orientation meeting invites were sent to qualified homeowners in June 2017. For this portion of the program, six homeowner orientation meetings will be held on a monthly basis starting in July 2017. Design visits of homes will begin in August 2017, construction will commence in January 2018, and all the qualifying homes will be mitigated by December 31, 2018.

5. 2018 Super Bowl Aircraft Activity Update

Phil Burke, Director of MSP Operations, was assigned the internal MAC coordinator role to prepare for the Super Bowl in February 2018. In collaboration with FAA ATC, they are coordinating the air traffic plan for the Super Bowl. Burke introduced the Mission Statement: “Boldly welcoming Super Bowl LII to Minnesota, where our people are surprisingly warm, the airport communities world-class, and the experience unforgettable”. There are a number of considerations for MSP when welcoming the Super Bowl to MN and committees dedicated to addressing them: Safety and Security, General Aviation Airports, Ground Transportation, Volunteers, and Operations. Representatives for these committees met with the team from Houston to learn from their experiences hosting the Super Bowl in 2016. The day after the Super Bowl is expected to be the busiest passenger day in MSP history, and the goal is to operate at the top of our game when it comes to safety and exceptional customer experience.

Sean Fortier, FAA Traffic Management Officer, introduced FAA’s research, planning, and outreach phases. Utilizing historical data from the previous year’s Super Bowl the expected main impact will be the Thursday before the Super Bowl through the Monday after. There are expected to be 1,100 aircraft on the ground at MSP on Sunday and 3,000 additional operations.

Representative Dmytrenko, Richfield, asked what the plan is to communicate with the public the anticipated air traffic and associated noise levels. **Fortier** responded that those notifications are part of the outreach phase. **Dana Nelson, Technical Advisor**, added that electronic communications will be sent through the MAC noise communication channels and encouraged communities to also share communications on their websites and social media platforms. **Nelson** said information will also be provided at listening sessions through the Noise Office as well.

6. Fly Quiet Award Program Evaluation

Dana Nelson, Technical Advisor, discussed that the 2017 NOC Work Plan includes an evaluation of the benefits, challenges and applicability of a Fly Quiet Award Program at MSP. Some U.S. airports have instituted such programs: Vancouver International, YVR; Oakland International, OAK; and Seattle-Tacoma International, SEA. YVR’s award is based on average annual noise levels at noise monitors located under their major runway. Anecdotally from YVR, they said that while they’re grateful for the award however the award has not resulted in airlines changing operations to comply with the award criteria. OAK had a similar comment although their criteria was based on voluntary noise abatement procedures. SEA’s award was based on adherence to noise abatement procedures, single event noise levels at noise monitors, and field rule violations for ground run-ups. Their response to the program mirrored that of YVR and OAK. **Nelson’s** team pinpointed a number of challenges for the award program at MSP, such as noise abatement procedures are voluntary and reflect air traffic control procedures and adherence. Nighttime operations have increased and while analyzing actual nighttime operations could be

done, it's not a fair representation because such operations may be delayed and do not necessarily reflect the operator's choice. Weather, other aircraft delays, or any other circumstance can push operations in to the night when maybe they weren't scheduled at that time. Looking at only scheduled operations wouldn't provide an accurate representation either, since not all regional carriers and cargo operators report their schedules.

Representative Oleson, Bloomington, recommended that NOC hold on to this information for future decisions but at the moment, moving forward does not seem to be advantageous. **Representative Quincy, Minneapolis**, vocalized his agreement with Representative Oleson. **Representative Goss, Delta**, echoed both previous comments.

7. Converging Runway Operations Update

Kurt Mara, FAA Traffic Management Officer, updated the NOC on the recent Converging Runway Operations (CRO) activities. He reported that CRO is continuing to be a challenge for traffic controllers because it is more restrictive than prior to the new rules implemented in July 2015. The Converging Runway Display Aid (CRDA) is a tool that was discussed at the last NOC meeting and has been providing some benefit, but is labor-intensive for controllers. In early June 2017, FAA started flexing the arrival rates up during three peak arrival demand periods throughout the day which has proven to reduce arrival delays. ATC meets weekly to review CRDA use and brainstorm refinements. The next phase is to review departures and find time frames to focus on flexing departure rates up to decrease delays. During periods of high departure demand, the arrivals will be routed to the parallel runways (30L and 30R), which would remove the Arrival Departure Window (ADW) concern for Runway 35. This is anticipated to help departure delay, specifically to Runway 30R. The next tool the FAA is reviewing for use, long term, is for different departure headings off 30R to miss the intersection point for a go-around on 35 and therefore be able to operate departures off Runway 30R without consideration to the Runway 35 ADW. The safety leaders at FAA headquarters are analyzing this possibility as a way to revert Runway 30R departures back to being independent from the ADW on Runway 35. The first phase is to gather data and ensure that it is a viable solution while still maintaining FAA safety margins. This would include procedure modeling using computer software to determine headings that would ensure the intersection point in space would be avoided. After procedure modeling, a procedural test would be run to gather actual operational data for study and review. After the procedure test, a final determination will be made as to whether or not this is a feasible long-term solution for CRO. **Mara** said is likely it will be a year-and-a-half to two years before that determination would be made.

Representative Goss, Delta, if implementation of headings of 30R, will this be annotated within the FAA's lexicon for an alternative means of compliance? **Mara** replied that is always a concern. This is not considered an alternative means of compliance, it is not considered a waiver; this will be considered "other means that are locally developed".

Dana Nelson, Technical Advisor, added that a few components are related to this CRO update - a resolution passed by the NOC to ask the FAA to evaluate the environmental and capacity impacts once they've come to a conclusion with CRO. These potential evaluation time periods may need to be extended by a year or so. There is a relational impact to the MSP Long Term Comprehensive Plan, originally initiated in 2015 at MSP with a 20 year look ahead. Delaying the LTCP has been determined to be appropriate so the correct assumptions related to runway use, flight track use and airport capacity in the document. **Representative Link, Inver Grove Heights**, said it would be helpful to have that information for the community comprehensive plans, but there doesn't seem to be a way to pull that information together in

order to be correctly utilized by the cities. **Chair Miller, Eagan**, added that there is great risk involved in putting inaccurate information out to the public. **Representative Oleson, Bloomington**, commented that the community comprehensive plans could have a note that explains the circumstances asked how this language is then added to the LTCP for Met Council. **Nelson** responded that there are approved forecasted contours within an environmental planning document that can be used for future planning documents. In addition, projects in the next five year CIP will not be held up by this LTCP delay. **Representative Quincy, Minneapolis**, commented that this is an update to the existing LTCP and thusly are operating under the existing LTCP. The 5 year update affects the forecast, the forecast affects how the noise contours are drawn. For the record, **Quincy** stated he is not in favor of expanding the noise contours. It seems that the FAA is trying to figure out how to go back to airport efficiency levels before CRO. That then would have a detrimental effect to those on the ground from a noise point of view. The goal of this noise oversight body should be, how will we meet efficiency and safety standards while truly overseeing the noise impacts. **Quincy** went on to say that a delay to ensure the 5-year update reflects the most accurate forecast information, which seems to make sense. **Miller** asked Nelson if she had the direction needed as her interpretation is that there was a consensus of the board to further delay the MSP LTCP.

8. Public Comment Period

None

9. Announcements

The Summer Listening Session will be held on July 26th, 2017 at 7pm in Apple Valley, MN.

10. Adjourn

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

The meeting adjourned at p.m.

The next meeting of the NOC is scheduled for Wednesday, 20 September 2017.

Respectfully Submitted,
Amie Kolesar, Recording Secretary



MSP NOISE OVERSIGHT COMMITTEE MEETING MINUTES

Wednesday, 20th of September 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, 20th of September 2017, in the Lindbergh Conference Room at the MAC General Office. Chair Hart called the meeting to order at 1:38pm. The following were in attendance:

Representatives: T. Link; J. Oleson; G. Goss; J. Hart; D. Miller; P. Dmytrenko; J. Miller; L. Olson; R. Barette;

Staff: D. Nelson; B. Juffer, C. Leque; A. Kolesar; J. Christenson; M. Baker; P. Hogan

Others: J. Aul – City of Bloomington; D. Langer-FAA; M. Doran – City of Richfield; M. Brindle – City of Edina; K. Terrell – MSP Fair Skies; D. Ingraham – Northern Planes District, FAA; S. Nienhaus – City of Burnsville; S. Heegaard – City of Saint Paul; P. Litke – FAA; B. Donley – Plymouth; J. Winingar – FAA, MSP Tower; M. Sands – FAA, MSP Tower; J. Moore – Star Tribune; C. Carino – MSP Fair Skies; K. Mara – MSP FAA; M. Nolan – City of Edina; M. Doran – City of Richfield; M. McNeill – City of Mendota Heights; B. Hoffman – City of Saint Louis Park; R. Ditto – FAA, SYSUPS; L. Grotz – City of Edina; M. Brindle – City of Edina; S. Devich – City of Richfield

Chair Hart, Delta, requested a motion to approve an agenda change to add an MSP FairSkies presentation to the second agenda item. **Representative Oleson, Bloomington**, moved the motion. **Representative Olson, Minneapolis**, seconded, and the motion was passed unanimously.

1. Review and Approval of the July 19 17, 2017 Meeting Minutes

Chair Hart, Delta started the meeting by mentioning there was not a quorum and therefore July and September meeting minutes will be approved at the November NOC Meeting.

2. Presentation from MSP FairSkies Coalition

Steve Kittleson, MSP FairSkies Coalition, introduced himself and Kevin Terrell and started the presentation by saying that MSP FairSkies Coalition would like to reduce noise and have no surprises with use of the airspace around MSP. **Kittleson** stated that MSP FairSkies has observed MSP airport noise increasing. **Kittleson** said that they send shape data from a 55dB DNL contour to the University of Minnesota to place on a population map. Based on this

information, he then presented a map on the power point presentation, comparing 2015-2017 and stated that noise has increased 30% in the last two years. **Kittleson** mentioned the recent ruling of the Washington D.C. US Court of Appeals and Circuit Judge Griffith's statement at the hearing and said "The petitioners argue that the FAA's approval of the new flight routes was arbitrary and capricious. We agree".

Kevin Terrell, MSP FairSkies Coalition reiterated that MSP FairSkies doesn't want surprises from the FAA, that Phoenix Sky Harbor had surprises that resulted in a court case; that the Governor of Maryland wants to sue the FAA for airport noise; that the number of people exposed to noise near LaGuardia Airport has increased from 370,000 in 2010 to 774,000 in 2016. **Terrell** related all of these instances to the FAA's implementation of NextGen and that MSP FairSkies doesn't want to see that at MSP.

Terrell believes that in order to succeed in the prevention of a similar situation occurring, that all parties need to agree on the problem. Then there needs to be baseline data, improvement goals need to be set, and then there needs to be collaboration to reach the goals. To start, **Terrell** believes the baseline measurement of 65 dB DNL needs to be lowered to 55 dB DNL as studies have shown a negative association at 55 dB DNL. He also states the other issue with the current baseline data, is that MSP doesn't look at population counts but instead actual dwellings. He also suggested that the noise metrics be calculated by single events not averages, modeled noise, or daily averages.

Terrell placed a list of things MSP FairSkies would like to see done in order to create baseline data and drive progress: a 55dB DNL contour produced annually by MAC staff, have that contour then turned into a noise exposure map, finally, use a single event metric with an N65 contour and also turn that into a noise exposure map.

Terrell stated that MSP FairSkies came to what they think is a reasonable goal and a good airport for comparison is Amsterdam Schipol Airport. MSP FairSkies' target is to reduce the population impacted by 55 dB DNL noise at MSP by 50% by 2025 and ensure it's fairly distributed. In an effort to collaborate, MSP FairSkies listed a number of ways to collaborate with NOC which include changing Noise Oversight Committee to Noise Reduction committee; add representatives on the NOC that are from the school board, elected citizen groups, or an appointed Ombudsman.

In conclusion, **Terrell** showed a list of the requests for the NOC's consideration.

Representative Olson, Minneapolis, stated that Minneapolis supports creating a 55 dB DNL and N65 style map. A national discussion surrounding the use of 55 dB DNL as a standard metric is occurring and as such, Minneapolis is advocating for that as well. She then asked MSP FairSkies if there was a certain way to have them produced or presented. **Kittleson** responded that both the Annual Report to the Legislature and the Annual Noise Contour Report are two opportunities for this report to be added. **Terrell** stated that MSP FairSkies is not advocating for additional mitigation to the 55 dB DNL.

3. Review of Monthly Operations Reports: July and August, 2017

Brad Juffer, Assistant Technical Advisor, started by reporting that 37,665 flights operated at MSP in July increasing to 38,511 operations in August. This represents a 1.2% decrease and a

1.7% increase from 2016. Year to date operations at MSP are 279,774 which is currently 1.1% above the previous year.

During night time hours, 2,346 flights operated at night in July accounting for a 21% drop from 2016. 2,213 operations occurred at night in August 2017 which was a 16% drop from 2016. For all of 2017, through September 19th, there have been 17,933 MSP nighttime flights which is 640 less flights or a 3.4% drop at night from 2016.

The runway flow at MSP in July was 31% in the north flow, 54% in the south flow and 7% mixed flow. In August, those numbers changed to 32%, 42% and 16% of the time. While the north flow stayed consistent, south flows were reduced and in part replaced by hours in a mixed flow in August. The 2017 splits are similar to the same time period in 2016.

In July 2017 the carrier jet splits were 37% regional jets, 60% narrow body aircraft, and 3% and wide body aircraft. That gap fell slightly in August to 38%, 59%, and 3%. The numbers for in 2016 for July and August were exactly the same at 41% regional jets, 56% narrow body aircraft, and 3% wide body aircraft.

There were 16,293 complaints filed in July and an additional 16,727 complaints filed in August, collectively, this number is 44% higher than last year. In 2017, complaints were filed from 557 locations in July and 615 locations in August; in 2016 those numbers were 625 and 584. On average there were 2.3 operations for every complaint in both July and August in 2017. These numbers are lower than they were in 2016 as our complaint totals continue to rise and the operations numbers are very similar to 2016.

In July each location filed 29 complaints, on average, and that dropped to 27 in August. Median complaints per household has held steady at 3 for every month in 2017. Using a map, **Juffer** showed the top 10 complaint locations which filed 52% of all complaints during the previous months. The Top 50 locations recorded 80% of the complaints and the top 100 locations recorded 88% of all complaints in July and August. Overall, there were 632 locations or 75% of all households shown to file 10 or less complaints.

On monitoring, aircraft events occurred for just under 454.5 hours in July and roughly 507 hours in August. That time is the result of 94,434 aircraft sound events in July and 98,847 events in August. The total events are down from 2016.

Time Above per Operation was 43 seconds July and 47 seconds in August. In 2016 those numbers were 46 and 48. The N65 count above per operation was 2.51 sound events per operation in July and 2.57 sound events per operation in August. This means that each operation triggered a sound event at 2.5 RMTs. These numbers are down from earlier this summer and are consistent with the same time last year. The average duration of events was 17 seconds in July and 18.5 seconds in August.

Runway 17 procedure was consistently used for 99.8% of the time for both months. A total of 29 jets on R17 turned westbound early. The corridor procedure was used 94.7% of the time in July increasing to 94.3% of the time in August. In July, 95 jets were north of the corridor and 139 were south. In August, 86 jets were north of the corridor and 110 jets were south.

Crossing Procedure was used during the day 37% (1532) of the time in July and in August it was used 37% (1211) of the time. During night time hours, the procedure was used only 37% (93 flights) of the time in July and 35% (52 flights) of the time in August.

Finally on the runway use. High priority runways were used 52.1% of the time in July and 55.4% of the time in August. The August percentile of 55.4% is the second highest total since **Juffer** and his team began tracking its use.

Juffer also said that the NOC requested a Help Video to navigate the new Noise website, it is complete and ready to be viewed.

Representative Olson, Minneapolis, commented that the number of complaints looks very large. **Juffer** responded that while the number is high, numbers in 2011 were higher. **Juffer** also clarified that the number of complainants isn't as high as his team has seen in the past. In 2015, there were over 1000 unique addresses associated with complaints. **Olson** followed up by asking if there was a map that showed the individual houses with the number of complaints. **Juffer** directed her to the map on the online reports section but **Olson** commented that she would like to see it in the report presented to the NOC. **Representative Miller, Eagan**, commented about scheduled night time operations, it appears that in August there were more scheduled night time flights, not just actual. **Miller** then asked if it was possible to obtain the data from the airlines as to why more night time flights were being scheduled. **Juffer** mentioned that in terms of data, Delta generally has a larger schedule in the summer months and that tends to reduce when school starts. However he said that he will look into the information and the data and try to understand the increase in scheduled night time flights. **Chair Hart, Delta**, asked about RUS and month over month the Mixed Flow seems to be doubling. **Juffer** said the same pattern occurred last year, that the Mixed Flow hours in August of 2016 were about 15% use and then again in 2017.

4. Update on Phoenix Sky Harbor International Airport PBN

Chad Leqve, MAC Director of Environment, stated that FAA implemented RNAV at Phoenix Sky Harbor International on September 18th, 2014. After that, the city became concerned and engaged in the actions occurring at the airport. The FAA responded that they would reconstitute a working group to see what could be done in terms of procedure modification and provide relief to the community. The community relied on those representations and at the end of a very long process, there were no changes presented to the community in order to modify any procedures. As a result, in June 2015, the city filed with the DC Circuit to review the FAA decision. This file alleged that the implementation was arbitrary and capricious. Litigation was filed and questions before the court were presented as part of this process, one being on the concept of timeliness. Challenges to FAA final decisions need to occur within 60 days of the final administrative decision. In this situation, the FAA alleged that the final decision occurred on September 18th, 2014; the three judge panel on the case agreed with that statement. The follow up question became, how can you hear a petition that is over 6 months beyond that final determination date? There is a narrow exception, as it relates to court precedent on relieving that 60 day appeal requirement. After looking at the case, two of the three judges on the panel decided in favor of the city; although they were beyond that 60 day window, the court ruled that they were reasonable in filing their expectation at a later date because they were trying to collaborate with the FAA.

The court ruled that the FAA failed to adequately consult with the City of Phoenix under the NEPA Act, under the National Historic Preservation Act, and under Section 4(f). The court had a number of instances that substantiated their position. One was that the FAA unreasonably concluded a categorical exclusion was appropriate. FAA inappropriately applied DNL 65 standards under NHPA and Section 4(f). The FAA assumed that historic districts and parks were all urban and they also neglected to consult with city representatives and state historic preservation officers.

Leqve then reminded the Committee on the situation at MSP and the fact that the NOC's RNAV Resolution established MSP is an airport that has "Extraordinary Circumstances" and this impacts how the category exclusion is applied. MSP has a strong record of having that involvement from the community, as well as from the communities and the airlines. The NOC resolution also provides a strong message with all stakeholders aligned around a set of local expectations if the FAA considers implementing RNAV departure procedures at MSP.

Leqve concluded with the fact that the FAA is reviewing a possible new noise metric. The expectation is that the report will be out before the end of 2017 and that will lead into what is called the "Three Policy Analyses". These are evaluations on any new noise threshold recommendation, such as the possible 55 dB DNL instead of the 65 that's used today. If there was to be a change, the FAA would need to review and evaluate all policies on how a new metric is implemented.

5. Evaluate and Enhance the Reporting of the Runway Use System (RUS)

Dana Nelson, Technical Advisor, reminded the NOC members that an item on the 2017 work plan was to create a holistic view of the RUS and airport configurations. When discussing the topic of the RUS, the term "flow" is often mentioned and refers to various airport configurations at MSP. There is a North Flow, the FAA refers to this as arrivals and departures on the 30s and 35. A Straight North Flow refers to arrivals and departures on only the 30s. A South Flow refers to arrivals and departures on the 12s and 17 but a Straight South Flow refers to arrivals and departures on only the 12s. There is also a configuration called Mixed Flow A, arrivals on the 30s and departures are on 17. This configuration uses the RUS-established number one priority for arrivals, over the Eagan/Mendota Heights Corridor and the second priority for departures. Mixed Flow B refers to departures on the 12s and arrivals on 35. The FAA uses Mixed Flow B less often than Mixed A, but **Nelson** reported that as of late, they seem to be utilizing B more regularly. The two Mixed Flow configurations are an attempt to have optimal use of the RUS. The final configuration is called the Opposite Direction Flow but this is the most challenging configuration to follow. This flow is only utilized when winds are light, and when traffic demands are light.

Nelson and her team are proposing to expand the interactive reports website, under abatement, the RUS by Flow information. This information will show the number of hours spent in a particular flow, by year and month. The data tables list percentage of time in each configuration, not the percentage of operations in each configuration. **Representative Olson, Minneapolis**, asked if nighttime RUS can skew the average numbers and percentage and as such, if you can view the data by daytime hours and nighttime hours only. **Nelson** responded that the data can filter to only show nighttime or all hours. **Representative Miller, Eagan**, asked why the data is showing percentage of time and not just operations. **Nelson** responded that percent of operations and exact operation are both shown in other reports and showing it again would be redundant.

6. Investigate Noise-Reducing Landscaping Options

Dana Nelson, Technical Advisor, reported that the 2017 work plan included a discussion on options for landscaping to reduce ground noise. **Nelson** reviewed landscaping done at Amsterdam's Schiphol Airport. This airport is on over 6,800 acres of land, compared to MSP's 3,400 acres. Schiphol Airport created ridges off an end of their newest runway to dampen low frequency ground noise and it has shown to reduce the noise by 2-3 dB. These options are not feasible at MSP due to the lack of airport property and the property surrounding the airport is controlled by municipalities. **Nelson** concluded that if communities were willing to develop their land with these landscaping options it would only provide noise reduction benefit if the landscaping was done close to the airport, as these options do not reduce overflight noise.

7. Status of FAA Center of Excellence/ASCENT, TRB and FICAN Research Initiatives

Dana Nelson, Technical Advisor, stated that the agenda packet included a report of projects that were completed, active, initiated, or anticipated in 2017/2018 by the Transportation Research Board (TRB), FAA's Center of Excellence/ASCENT, Federal Interagency Committee on Aviation Noise (FICAN), or recent studies concerning health related effects of aircraft noise. **Representative Olson, Minneapolis**, mentioned that she would like the group to review the abstracts for each study and discuss them as well as the outcomes and how to incorporate them into the regular NOC process. **Nelson** responded that this is a good time for the Committee members to review these initiatives and consider whether they'd like further review and discussion on any particular initiative be added to the 2018 NOC work plan.

8. Review of July 26, 2017 Listening Session

Dana Nelson, Technical Advisor, reported that 9 residents attended the Summer Listening Session at the Apple Valley Municipal Center. The presentation slides from that meeting are available on the MAC Noise website. Representatives from Delta and the FAA were both in attendance, in addition to MAC staff and Apple Valley representatives. Most residents were from the south metro area and thus the questions asked revolved around runways 17 and 35, nighttime operations, noise monitoring, RUS, CRO, and components of the Federal Environmental Impact Study. All questions asked at the meeting were answered. **Nelson** added that MAC staff had a follow up meeting with an Inver Grove Heights resident and NOC representative, Tom Link.

Nelson concluded with announcing the fall listening session scheduled for October 25th, 2017 at 7pm at the MAC General Office Building.

9. Public Comment Period - None

10. Announcements - None

11. Adjourn

A motion to adjourn was requested by **Chair Hart, Delta**, moved by **Representative Miller, Eagan**, and seconded by **Representative Oleson, Bloomington**.

The meeting adjourned at 3:03 p.m.

The next meeting of the NOC is scheduled for Wednesday, 20 September 2017.

Respectfully Submitted,
Amie Kolesar, Recording Secretary

MEMORANDUM

ITEM 2

TO: MSP Noise Oversight Committee (NOC)

FROM: Dana Nelson, Manager – Noise, Environment & Planning

SUBJECT: **REVIEW OF MONTHLY OPERATIONS REPORTS: SEPTEMBER AND OCTOBER, 2017**

DATE: November 1, 2017

Each month the MAC reports information on MSP aircraft operations, aircraft noise complaints, sound levels associated with MSP aircraft operations, and compliance with established noise abatement procedures on its interactive reporting website: <https://www.macenvironment.org/reports/>.

At the November 15, 2017 NOC meeting, MAC staff will provide a summary of this information for the months of September and October, 2017. To view these summary reports prior to the meeting, visit the Archives section at the link above. Staff will send the presentation slides for this topic to the Committee members in advance of the meeting.

MEMORANDUM

ITEM 3

TO: MSP Noise Oversight Committee (NOC)

FROM: Dianne Miller – NOC Co-Chair, City of Eagan
Jeffrey Hart – NOC Co-Chair, Delta Air Lines

SUBJECT: **RESPONSE TO MSP FAIRSKIES REQUESTS**

DATE: November 1, 2017

At the September 20, 2017 NOC meeting, the co-founders of the MSP FairSkies Coalition made several requests to the Committee. The presentation slides containing these requests were sent to the Committee following the meeting and added to the meeting presentation deck at: www.macnoise.com/sites/www.macenvironment.org/files/pdf/noc-presentation-20170920.pdf.

In summary, the following requests were made to the NOC:

1. Produce and publish a 55 dB DNL contour
2. Produce and publish an N65 contour
3. Establish a goal to reduce noise
4. Enhance the NOC with greater stakeholder (citizen) representation

We have directed MAC staff to present at the November 15, 2017 NOC meeting on information for consideration with respect to each request so that the Committee can discuss and make an informed determination on its response to the requests.

REQUESTED ACTION

PROVIDE COMMITTEE RESPONSE TO MSP FAIRSKIES REQUESTS.

MEMORANDUM

ITEM 4

TO: MSP Noise Oversight Committee (NOC)

FROM: Dana Nelson, Manager – Noise, Environment & Planning

SUBJECT: **ANNUAL MSP FLEET MIX AND NIGHTTIME OPERATIONS REPORT**

DATE: November 1, 2017

The 2017 NOC Work Plan includes an assessment of current fleet mix and nighttime operations trends. MAC staff has prepared the attached Annual MSP Fleet Mix and Nighttime Operations Report.

A copy of the report is attached and will be presented at the November 15, 2017 NOC meeting.

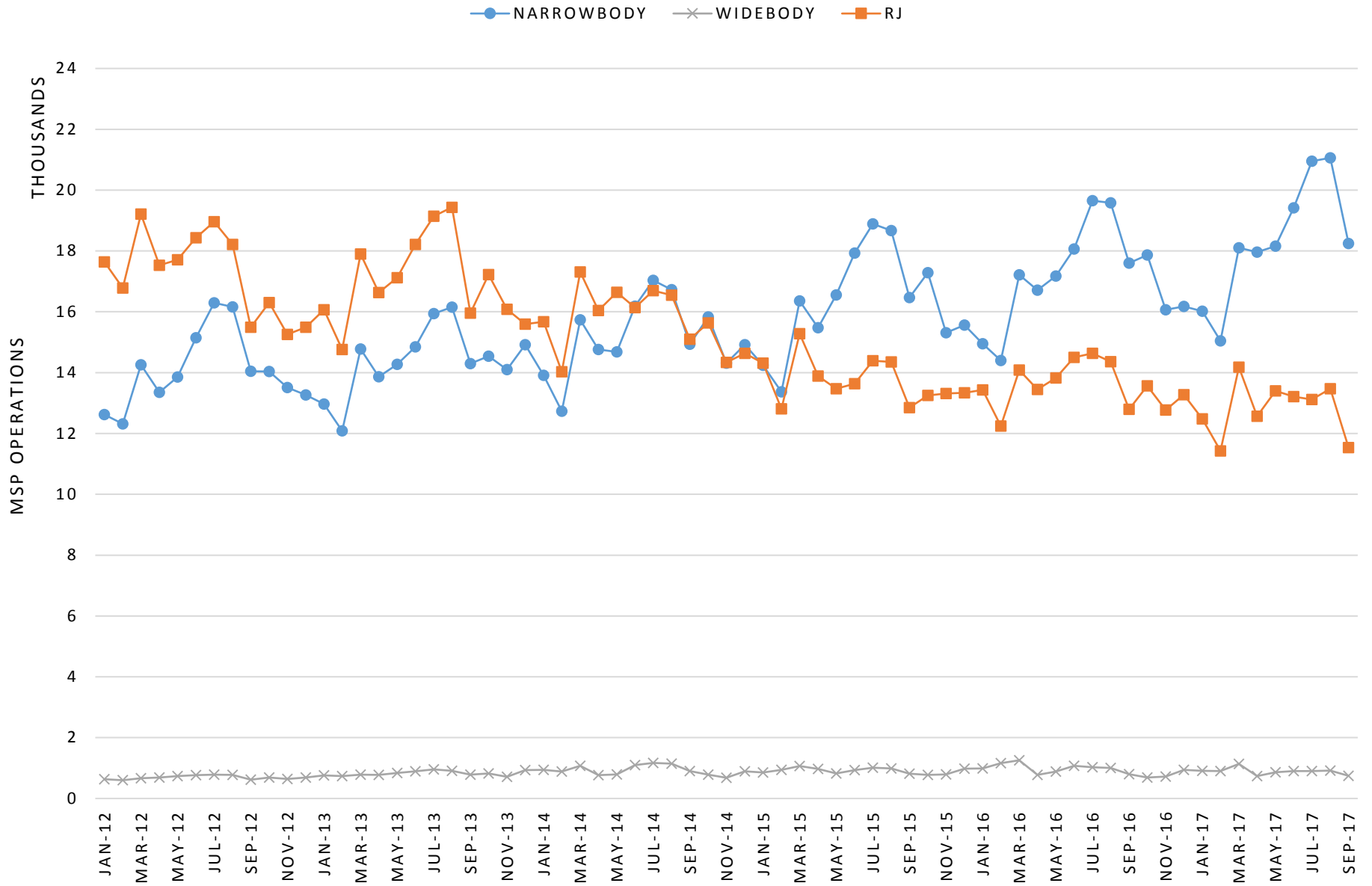


**ANNUAL MSP FLEET MIX AND
NIGHTTIME OPERATIONS REPORT**
NOVEMBER 2017

ENVIRONMENT DEPARTMENT, NOISE PROGRAM OFFICE

METROPOLITAN AIRPORTS COMMISSION
6040 28TH AVENUE SOUTH, MINNEAPOLIS, MN 55450
WWW.MACNOISE.COM

MONTHLY CARRIER JET COUNTS BY TYPE



WIDE BODY JET ACTIVITY

GROUP	TYPE	2012	2013	2014	2015	2016	2017 JAN-SEP
WIDE BODY	A124	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	A225	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	A310	0.01%	0.01%	0.01%	0.02%	0.00%	0.00%
	A330	0.51%	0.75%	0.69%	0.73%	0.68%	0.86%
	B742	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	B744	0.00%	0.01%	0.08%	0.03%	0.01%	0.00%
	B748	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	B762	0.05%	0.12%	0.14%	0.14%	0.14%	0.14%
	B763	0.46%	0.55%	0.83%	0.74%	0.90%	0.57%
	B764	0.19%	0.19%	0.21%	0.22%	0.24%	0.01%
	B767	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	DC10	0.28%	0.20%	0.19%	0.24%	0.13%	0.21%
	MD11	0.43%	0.51%	0.54%	0.51%	0.61%	0.51%
	A300	0.02%	0.03%	0.07%	0.07%	0.03%	0.01%
	B777	0.20%	0.18%	0.10%	0.17%	0.18%	0.36%
	A340	0.00%	0.00%	0.05%	0.07%	0.06%	0.09%
	A380	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
B7878	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
TOTAL		2.16%	2.56%	2.92%	2.94%	2.98%	2.78%

AIRBUS A330 (A330)



BOEING 767-300 (B763)



MCDONNELL DOUGLAS MD-11 (MD11)



NARROW BODY JET ACTIVITY

GROUP	TYPE	2012	2013	2014	2015	2016	2017* JAN-SEP
NARROW BODY	A318	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
	A319	6.35%	5.98%	7.54%	7.91%	7.23%	7.11%
	A320	9.02%	8.35%	9.61%	9.02%	9.92%	7.29%
	A321	0.37%	0.47%	0.72%	0.84%	0.46%	0.55%
	B717	1.36%	0.83%	0.59%	1.48%	2.36%	5.00%
	B733	1.05%	1.12%	0.75%	0.85%	0.67%	0.46%
	B734	0.04%	0.04%	0.04%	0.03%	0.03%	0.03%
	B735	0.25%	0.01%	0.00%	0.00%	0.00%	0.01%
	B7377	3.39%	4.43%	5.01%	4.83%	4.83%	5.09%
	B738	4.61%	4.53%	5.62%	6.78%	7.82%	9.51%
	B739	0.13%	0.13%	0.77%	2.81%	3.78%	4.92%
	B73Q	0.01%	0.00%	0.00%	0.00%	0.01%	0.00%
	B757	6.86%	6.89%	6.47%	6.39%	5.80%	6.00%
	MD80	3.45%	4.03%	3.72%	3.52%	3.59%	2.56%
	MD90	6.79%	7.84%	6.78%	8.25%	7.61%	8.66%
	B72Q	0.02%	0.01%	0.00%	0.00%	0.00%	0.00%
	DC8Q	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
DC9Q	0.19%	0.01%	0.00%	0.00%	0.00%	0.00%	
TOTAL		43.96%	44.66%	47.62%	52.73%	54.11%	57.21%

BOEING 737-800 (B738)



AIRBUS 319/320 (A319/A320)



MCDONNELL DOUGLAS MD-90



REGIONAL JET ACTIVITY

GROUP	TYPE	2012	2013	2014	2015	2016	2017* JAN-SEP
REGIONAL JET	CRJ	4.28%	16.10%	0.00%	0.00%	0.00%	0.00%
	CRJ1	0.15%	0.01%	0.10%	0.00%	0.13%	0.08%
	CRJ2	20.92%	9.33%	21.40%	17.26%	17.14%	16.33%
	CRJ7	3.36%	4.11%	4.23%	3.39%	2.75%	4.10%
	CRJ9	7.38%	7.60%	10.96%	14.70%	13.71%	11.50%
	E135	0.41%	1.30%	0.06%	0.09%	0.08%	0.06%
	E145	1.26%	0.67%	1.85%	1.24%	0.22%	0.07%
	E170	15.92%	13.22%	10.60%	7.37%	8.67%	7.38%
	E175	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	E190	0.20%	0.40%	0.23%	0.25%	0.20%	0.48%
	J328	0.02%	0.03%	0.03%	0.02%	0.01%	0.01%
TOTAL		53.89%	52.77%	49.46%	44.33%	42.91%	40.01%

BOMBARDIER CRJ-200 (CRJ2)



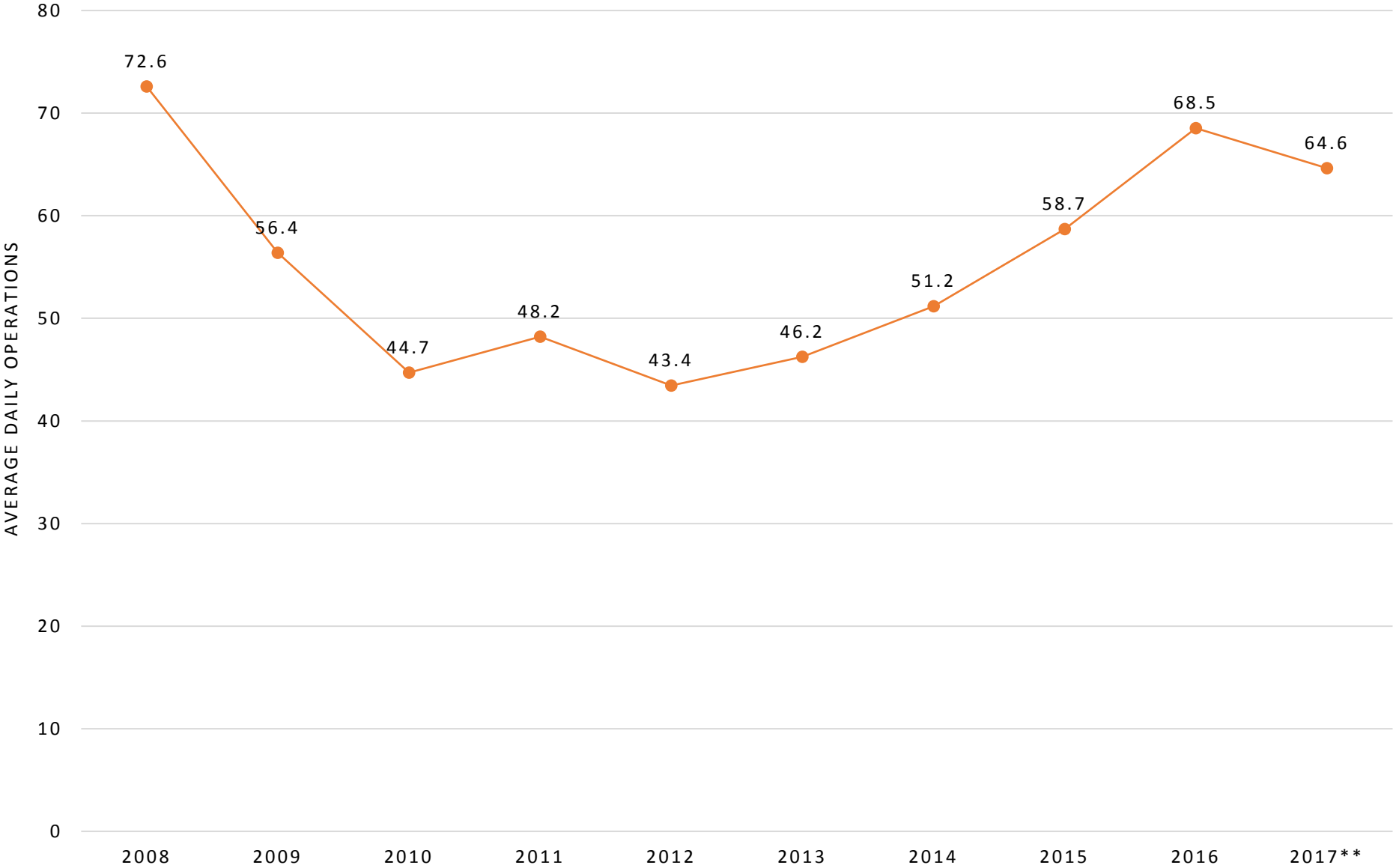
BOMBARDIER CRJ-900 (CRJ9)



EMBRAER 170 (E170)



AVERAGE DAILY NIGHTTIME OPERATIONS 10:30 PM - 6:00 AM



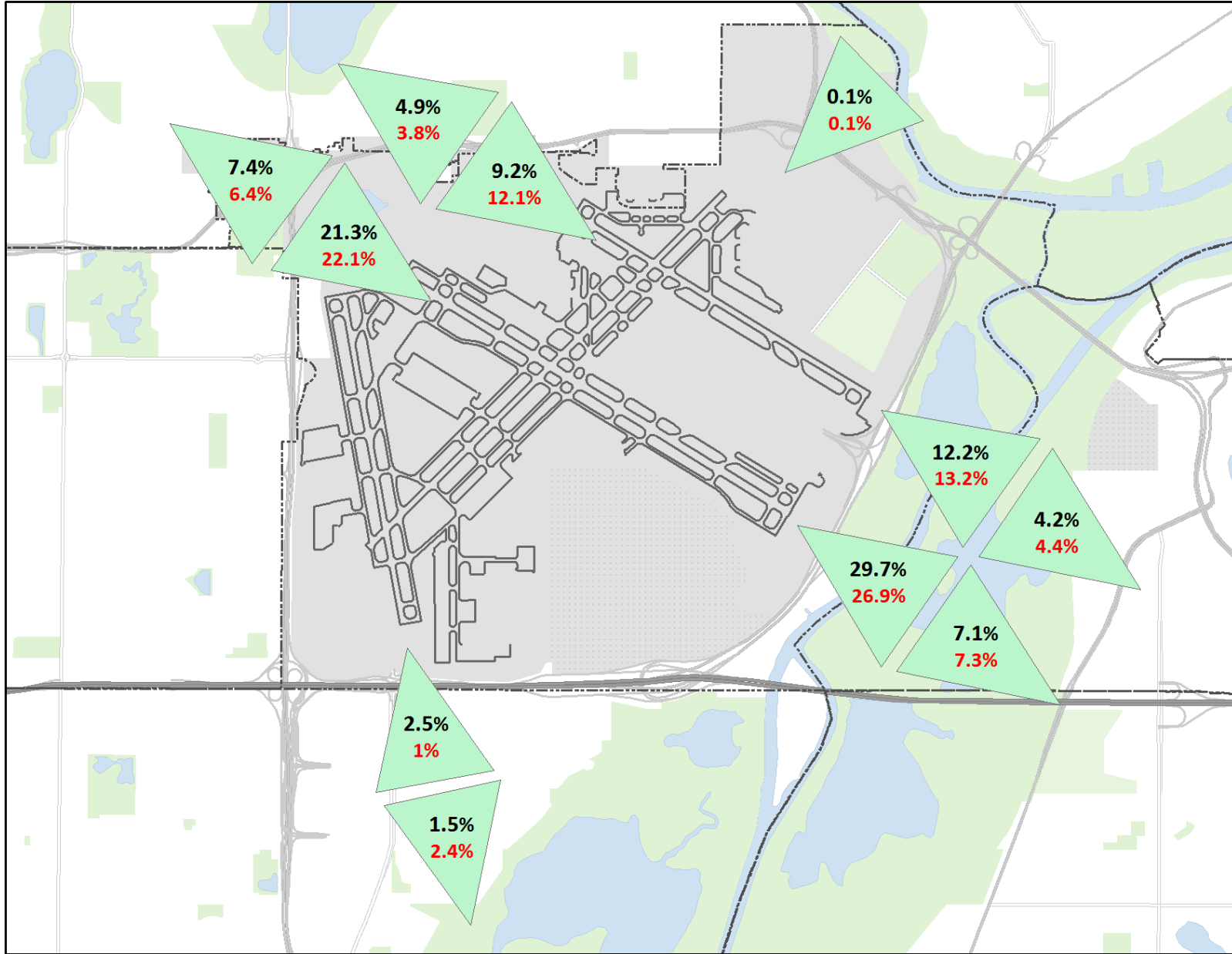
**2017 CALCULATED USING JANUARY – SEPTEMBER 2017 ACTUAL DATA AND 2014 – 2016 AVERAGE OCTOBER – DECEMBER DATA

NIGHTTIME OPERATIONS BY RUNWAY
(10:30 PM – 6:00 AM)

RWY	A/D	OVERFLIGHT AREA	2014 - 2016 AVERAGE			2017**		
			TOTAL NIGHT OPS	AVERAGE DAILY NIGHT OPS	%	TOTAL NIGHT OPS	AVERAGE DAILY NIGHT OPS	%
04	ARR	SO. RICHFIELD/BLOOMINGTON	11	0.0	0.1%	2	0.0	0.0%
12L	ARR	SO. MINNEAPOLIS/NO. RICHFIELD	2,621	7.2	12.1%	2,164	5.9	9.2%
12R	ARR	SO. MINNEAPOLIS/NO. RICHFIELD	4,806	13.2	22.1%	5,017	13.7	21.3%
17	ARR	SO. MINNEAPOLIS	2	0.0	0.0%	0	0.0	0.0%
22	ARR	ST. PAUL/HIGHLAND PARK	31	0.1	0.1%	26	0.1	0.1%
30L	ARR	EAGAN/MENDOTA HEIGHTS	5,843	16.0	26.9%	6,999	19.2	29.7%
30R	ARR	EAGAN/MENDOTA HEIGHTS	2,858	7.8	13.2%	2,875	7.9	12.2%
35	ARR	BLOOMINGTON/EAGAN	219	0.6	1.0%	581	1.6	2.5%
TOTAL NIGHTTIME ARRIVALS			16,391	44.9	75%	17,664	48.4	75%
04	DEP	ST. PAUL/HIGHLAND PARK	29	0.1	0.1%	0	0.0	0.0%
12L	DEP	EAGAN/MENDOTA HEIGHTS	957	2.6	4.4%	982	2.7	4.2%
12R	DEP	EAGAN/MENDOTA HEIGHTS	1,581	4.3	7.3%	1,673	4.6	7.1%
17	DEP	BLOOMINGTON/EAGAN	533	1.5	2.5%	360	1.0	1.5%
22	DEP	SO. RICHFIELD/BLOOMINGTON	11	0.0	0.1%	6	0.0	0.0%
30L	DEP	SO. MINNEAPOLIS/NO. RICHFIELD	1,385	3.8	6.4%	1,733	4.7	7.4%
30R	DEP	SO. MINNEAPOLIS/NO. RICHFIELD	835	2.3	3.8%	1,153	3.2	4.9%
35	DEP	SO. MINNEAPOLIS	7	0.0	0.0%	0	0.0	0.0%
TOTAL NIGHTTIME DEPARTURES			5,338	14.6	25%	5,907	16.2	25%
TOTAL NIGHTTIME OPERATIONS			21,729	59.5		23,571	64.6	

**2017 WAS CALCULATED USING JANUARY – SEPTEMBER 2017 ACTUAL DATA AND 2014-2016 AVERAGE OCTOBER – DECEMBER DATA

NIGHTTIME OPERATIONS BY RUNWAY (10:30 PM – 6:00 AM)



*RUNWAYS WITH LESS THAN 10 OPERATIONS ARE NOT SHOWN

**NIGHTTIME OPERATIONS BY AIRLINE
(TOP 15 BY COUNT)**

2017 (JAN-SEPT)	AIRLINE	ID	COUNT	PERCENT OF THE LISTED AIRLINE OPERATIONS OCCURRING AT NIGHT
	ALASKA	ASA	221	18.16%
	AMERICAN	AAL	1,883	14.04%
	COMPASS	CPZ	187	2.04%
	DELTA	DAL	4,650	4.26%
	ENDEAVOR AIR	EDV	394	1.40%
	FEDEX	FDX	433	23.61%
	FRONTIER AIRLINES	FFT	292	18.24%
	MESA AIRLINES	ASH	248	9.09%
	REPUBLIC AIRLINES	RPA	546	8.74%
	SKYWEST AIRLINES	SKW	1,377	2.46%
	SOUTHWEST	SWA	1,641	12.08%
	SPIRIT	NKS	942	13.55%
	SUN COUNTRY	SCX	2,888	18.20%
	UNITED	UAL	968	14.17%
UPS	UPS	650	32.53%	

2014 – 2016 AVERAGE	AIRLINE	ID	COUNT	PERCENT OF THE LISTED AIRLINE OPERATIONS OCCURRING AT NIGHT
	ALASKA	ASA	231	16.44%
	AMERICAN	AAL	1,999	16.10%
	AMERICAN WEST	AWE	501	14.10%
	COMPASS	CPZ	255	1.25%
	DELTA	DAL	5,303	4.07%
	ENDEAVOR AIR	FLG	686	1.16%
	FEDEX	FDX	479	19.71%
	FRONTIER AIRLINES	FFT	477	16.28%
	REPUBLIC AIRLINES	RPA	466	10.10%
	SKYWEST AIRLINES	SKW	1,505	2.64%
	SOUTHWEST	SWA	1,605	10.05%
	SPIRIT	NKS	1,163	14.53%
	SUN COUNTRY	SCX	3,334	18.28%
	UNITED	UAL	729	12.12%
UPS	UPS	812	33.27%	

**NIGHTTIME OPERATIONS BY AIRCRAFT
2017 JAN-SEPT
(TOP 25)**

AIRCRAFT CODE	DESCRIPTION	COUNT
B738	BOEING 737-800	4,410
B7377	BOEING 737-700	1,952
B757	BOEING 757-200	1,927
B739	BOEING 737-900	1,466
A320	AIRBUS INDUSTRIES A320	1,442
E170	EMBRAER 170	1,379
A319	AIRBUS INDUSTRIES A319	922
CRJ9	CANADAIR REGIONAL JET CRJ-900	770
MD90	MCDONNELL DOUGLAS MD90	645
CRJ2	CANADAIR REGIONAL JET CRJ-200	478
A321	AIRBUS INDUSTRIES A321	442
B717	BOEING 717	411
FAL2	DASSAULT FALCON 20	362
MD11	MCDONNELL DOUGLAS MD11	330
CRJ7	CANADAIR REGIONAL JET CRJ-700	274
A330	AIRBUS INDUSTRIES A330	220
DC10	MCDONNELL DOUGLAS DC10	123
MD80	MCDONNELL DOUGLAS MD80	112
B733	BOEING 737-300	103
B763	BOEING 767-300	78
CL30	BOMBARDIER CHALLENGER 300	44
SW4	SWEARINGEN MERLIN IV	38
B762	BOEING 767-200	34
B190	BEECHCRAFT 1900	31
GLF4	GULFSTREAM IV/G450	24

MEMORANDUM

ITEM 5

TO: MSP Noise Oversight Committee (NOC)

FROM: Dana Nelson, Manager – Noise, Environment & Planning

SUBJECT: **VORTEX GENERATOR NOISE MONITORING STUDY**

DATE: November 1, 2017

In 2016, the NOC discussed the noise reduction benefits of vortex generators, a device made to divert airflow from vents on the underside of wings on the Airbus A320-family aircraft to reduce aircraft noise on arrival prior to landing gear and flap extension.

The 2017 NOC Work Plan directed staff to commission a mobile noise monitoring study to quantify the noise reduction benefits of vortex generators at MSP. The noise benefit provided by these devices exists when the aircraft is arriving to an airport, in a clean configuration (prior to landing gear and flap extension). This condition occurs when an arriving aircraft is at an altitude between 5,000 feet and 9,000 feet. While the MAC has long maintained a system of permanent sound monitoring equipment, none would be suitably located or configured to collect aircraft sound levels during this particular phase of flight. To collect these levels, a temporary, mobile noise monitoring study was necessary.

A copy of the Vortex Generator Noise Monitoring Study is attached and will be presented at the November 15, 2017 NOC meeting.

[During the November 15, 2017 NOC meeting, the Committee decided to postpone the presentation of the Vortex Generator Noise Monitoring Study until the January 24, 2018 meeting on account of the full meeting agenda in November. The meeting agenda packet for the January 24, 2018 NOC meeting contains the Vortex Generator Noise Monitoring Study.]

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)

FROM: Dana Nelson, Manager – Noise, Environment & Planning

SUBJECT: **APPROVAL OF 2018 NOC WORK PLAN, MEETING DATES AND 2017 ACCOMPLISHMENTS**

DATE: November 1, 2017

In early October 2017, the NOC members were requested to forward – prior to the November 1 agenda mailing – to MAC staff any work plan elements that they would like to include on the 2018 Work Plan. Staff received one request from the City of Mendota Heights and their Airport Relations Commission. This item has been added to the 2018 Draft Work Plan included in this packet.

Additionally, the NOC’s Fall Listening Session was held to receive a list of items that citizens would like the NOC to pursue in 2018. The attendees were instructed to come up with ideas for the Committees consideration to fill two open slots in the 2018 Work Plan. Both verbal and written comments were taken and compiled into the attached list for the Committee’s consideration in the finalization of the 2018 Work Plan.

NOC members are encouraged to come to the November 15th Committee meeting prepared to finalize the work plan.

In addition, the pages following the Draft 2018 Work Plan and the citizen input from the Fall Listening Session provide the 2018 meeting schedule and the 2017 NOC accomplishments summary.

Following NOC approval, the 2018 Work Plan will be presented to the MAC Planning, Development and Environment (PD&E) Committee by the NOC Co-Chairs on December 4, 2017 at 10:30 AM in the Commission Chambers at Terminal 1-Lindbergh.

REQUESTED ACTION

APPROVE AND RECOMMEND TO THE MAC PLANNING, DEVELOPMENT AND ENVIRONMENT COMMITTEE THE FINAL 2018 MSP NOC WORK PLAN AND APPROVE THE LIST OF 2017 ACCOMPLISHMENTS AND 2018 MEETING DATES.



Minneapolis-St. Paul International Airport (MSP)
Noise Oversight Committee (NOC)

Draft 2018 MSP NOC WORK PLAN

1. RESIDENTIAL NOISE MITIGATION PROGRAM
 - a. Review Residential Noise Mitigation Program Implementation Status
2. MSP NOISE PROGRAM SPECIFIC EFFORTS
 - a. 2017 Actual Noise Contour Report and Residential Noise Mitigation Program Eligibility
 - b. Update on the MSP Long Term Comprehensive Plan and Associated Stakeholder Engagement
 - c. Update on the FAA's Survey to Re-Evaluate Noise Measurement Methods
 - d. Improve MAC Noise and Operations Monitoring System (MACNOMS) for a Better User Experience
 - e. MSP Fleet Mix and Nighttime Operations Assessment
 - f. Status of FAA Center of Excellence/ASCENT, TRB, and FICAN Research Initiatives
 - g. Update on Converging Runway Operations at MSP
 - h. Evaluate Mendota Heights Airport Relations Commission Runway 12L Departure Proposal
3. CONTINUE REVIEW OF PUBLIC INPUT
 - a. Continue to Review Input Received from quarterly Listening Sessions as Possible Agenda Items

Comments Received Fall Listening Session October 25, 2017

General

- Need to know which ideas suggested made it on the NOC Work Plan list.

Speakers

- Invite an aircraft engine manufacturer speaker to present to the NOC.
- Invite an FAA Regulation speaker to present to the NOC.

Noise Reduction / Goal Setting

- How can you reduce noise for individuals for those that are not in a noise mitigation zone?
- Stop calling noise level impacts, call them measurements. Model flight frequency and convert into a noise measurement. Establish limits to the frequency of flights.
- Set measureable goals
 - Instead of overseeing noise, goals for reducing noise for all, not just for certain people.
- Like to see summary of goals met annually.
- Can we establish goals and timelines so we can show progress through these meetings?
- Will the NOC ever share and achieve measurable goals and improvements?
- Set goals to reduce nighttime flights/noise.

Dispersion of Flights

- Modify departure headings from 30L to distribute flights, specifically near the Cornelia Elementary School area (Edina).
- Disperse arrivals and evaluate altitudes.
- Study how to use the new runway so takeoffs / landings will be better dispersed.
- We all realize we live in a metropolitan area and expect flights to be over our homes. There has to be a way to “share” this over the metro area. Everyone can take a turn during the day / night.
- Use all the runways to create more flight paths so the noise is shared.

Pollution / Health

- Invite a health and noise expert that can talk to people about the effect on health and stress.
 - Measure and quantify health and stress effects from noise in the MSP area.
- Study the effect of aircraft activity on pollution and how it can be mitigated.

Source Reduction

- Explore the possibility of requesting a grant that would reduce the noise from the aircraft (Elon Musk)
- Can the FAA accelerate the retirement of older aircraft?

Best Practices

- Identify a town with an international airport that does a good job with noise mitigation and use best practices here.
- What are the best practices for noise mitigation at other international airports?
- Watch Michael Moore, *Where to Invade Next* documentary.
- Produce comparative reports on MSP vs. other benchmark / leader airports that look at noise reductions and rank MSP.

Operational Considerations

- What can we do to ensure the highway in the sky (RNAV SID) does not happen at MSP?
- Do bigger planes make more noise, if so can they be routed differently or could they be dispersed?
- Make aircraft adhere to steeper departures or landings.
- Keep planes as high in the air as possible before they drop down over homes that are mitigated.
- Consider stopping/ending the RNAV Arrivals that began in March 2015. That is when the issues compounded.
- Evaluate the benefits / costs/ negative impacts of the RNAV arrivals.
- Stagger arrival and departure times and far flight patterns.
- Is the Runway Use System really used?
- Who benefits from the distant profile departures or not benefit?
- Study options to use Runway 17/35.
- Can you fly over the river?

NOC Bylaws

- Change Bylaws so that attendees no longer need their representative sponsor their comments.
- Increase number of NOC representatives. Give Edina and St. Louis Park their own seat on the NOC and no longer be under the member-at-large.
- Edina and St. Louis Park need their own individual NOC representative.
- Please clarify NOC's role or authority in airport operations.
- Amend the NOC membership to include better representation of affected neighbors—one member from Edina and St. Louis Park one member from at large community.
- We need more citizen in the meeting.
- Public needs time to speak at every NOC meeting without permission.
- Edina and St. Louis Park to have their own NOC rep.
- Reorganize NOC membership to include:
 - At Large rep from Edina / St. Louis Park (Our issues are not effectively represented)
 - Reduce / Combine industry reps
 - And a rep for Resident at large

MSP / Alternate Facilities

- Consider moving the airport.
- What is the future growth of the airport?
- Evaluate the freight traffic, consider adjusting time of day or moving to another facility, impose fee for nighttime.
- Advocate to increase takeoff and landing fees to reduce flights.
- Can we fine airlines for late night flights and use money to subsidize noise reduction?
- Push for the use of St. Cloud airport and light rail connection to MPLS.
- Lobby legislature to move the airport halfway between Mpls and Rochester.
- Come up with a different location for freight airlines.

Reports

- Conduct a departure analysis similar to the one completed in 2012
 - Comparison to the 2012 study by aircraft type, noise, altitude, frequency (heading 360°)
 - Are flights dispersed across the cities
 - Consider this as an annual report
- NOC advocate to have 55 dB.
- Annual report of data – Stats to review and measure to understand impact and progress
 - Number of flights
 - How many flights departed / arrived on the specific runways
 - Times of flights
 - Daily flight patterns
 - Average altitude of flights
 - Lowest / highest flight altitude
 - Noise levels contour map
- Produce annual reports on 55 dB (just to have data).



Minneapolis-St. Paul International Airport (MSP)
Noise Oversight Committee (NOC)

Draft 2018 MSP NOC Meeting Dates

Historically, the NOC meeting dates have been every other month (on the odd-numbered months) on the third Wednesday of each month. As such, staff recommends the following 2018 NOC meeting dates:

January 24

March 21

May 16

July 18

September 19

November 21

As has been the case, the agenda packet will be sent two weeks prior to each meeting and an agenda review session would begin at 1:00 PM for the NOC members, alternates and at-large contacts. Each NOC meeting will begin at 1:30 PM. Unless otherwise noted, the meetings will be held in the Lindbergh Conference Room in the MAC General Office building.



Minneapolis-St. Paul International Airport (MSP)
Noise Oversight Committee (NOC)

Draft 2017 NOC Accomplishments

1. Reviewed the MSP 2016 Annual Noise Contour Report (assessing the 2016 actual noise contour) published per the requirements of the Amended Consent Decree, including maps and text for noise mitigation program qualification.
2. Received an update and celebrated the results on how Optimized Profile Descent (OPD) flight procedures have reduced the carbon footprint of aircraft arriving to MSP by 28,465 metric tons as a result of Area Navigation (RNAV) arrival procedure implementation in March 2015.
3. Heard an update on the adjustments made to Area Navigation (RNAV) Standard Terminal Arrival Routes (STARs) by the FAA.
4. Received regular updates from the FAA on Converging Runway Operations and advocated the FAA follow the requests from the NOC's Resolution #02-2016 to do an environmental and capacity study on the existing and future impacts of CRO and to utilize the MSP runways and flight headings that would disperse noise.
5. Received an update on the U.S. Court of Appeals for the DC Circuit decision regarding the FAA's implementation of Performance Based Navigation procedures at Phoenix Sky Harbor International Airport.
6. Reviewed and approved a new monthly report containing MSP operations, aircraft noise complaints, sound level measurements and noise abatement procedure data consolidated in a four-page report accompanied with a new interactive website publishing in-depth noise data to the public.
7. Expanded the interactive reports website to report turboprop activity outside the Eagan-Mendota Heights Corridor and developed and approved an alternate way to report the Runway Use System based on airport flow.
8. Received regular updates on and provided feedback to the MAC regarding its Noise Program Communication Enhancement Plan, which included redesigning quarterly public meetings to improve community engagement and developing four Noise Basics videos and fact sheets to help explain the various aspects of aircraft noise.
9. Heard from the MAC Executive Director and CEO, Bryan Ryks on updates on the organization, recent accolades, trends in passengers and operations and future development at MSP.
10. Received a report on two airports using steeper glide slopes for noise reduction purposes and evaluated the operational and financial feasibility as well as the noise benefits of implementing a steeper glide slope at MSP above the standard 3-degrees.

11. Evaluated the benefits associated with implementing a Fly Quiet Award Program to reward aircraft operators for their noise reduction efforts and evaluated three airports that have instituted a program in the past.
12. Received a presentation from Delta Air Lines on their fleet mix plans at MSP.
13. Studied the history and use of Distant Noise Abatement Departure Profiles (NADPs) at MSP
14. Completed a Fleet Mix and Nighttime Operations Assessment to receive greater detail about what types of aircraft use MSP and what flights are operating at night.
15. Reviewed research initiatives from FAA Center of Excellence/ASCENT, TRB, and FICAN.
16. Received ongoing review of the monthly operations reports, including the FAA's use of the Runway Use System (RUS).
17. Received a report on an airport using landscaping in an effort to reduce ground noise for surrounding neighborhoods and discussed the efficacy of a similar option at MSP.
18. Commissioned a mobile noise monitoring study to quantify the noise reduction benefits of Vortex Generators on the Airbus 320 family of aircraft.
19. Received an update on the FAA's efforts to re-evaluate noise measurement methods at U.S. airports.
20. Received a status update on the communication efforts and the implementation of the Residential Noise Mitigation Program from the Project Manager who reported that 138 single-family homes and 88 multi-family units in Minneapolis are eligible to receive sound insulation packages in 2017 and additional 286 single-family homes are eligible to receive insulation packages in 2018.
21. Heard an update on the 2018 Super Bowl in Minneapolis and the FAA's and MAC's efforts to prepare, communicate and facilitate the associated demand on the airspace and airport facilities.
22. Received an update on the Second Amendment to the Consent Decree, which allows the MAC to use the new FAA-approved noise modeling software in the development of the annual noise contours and clarified language regarding homeowners choosing to opt out of the program.
23. Evaluated citizen input received during quarterly Listening Sessions as possible discussion topics at future NOC meetings.
24. Conducted the Fall Listening Session to collect ideas from citizens on what they would like the NOC to include in its 2018 Work Plan.

MEMORANDUM

TO: MSP Noise Oversight Committee (NOC)
FROM: Dana Nelson, Manager – Noise, Environment & Planning
SUBJECT: REVIEW OF OCTOBER 25, 2017 LISTENING SESSION
DATE: November 1, 2017

One of the elements of the framework for the NOC includes convening a quarterly meeting with the public. The primary goal of the meeting is to ensure residents’ concerns are heard and considered as part of the ongoing effort by the MAC and the NOC to address noise and other topics around MSP.

On October 25, 2017 at 7:00 P.M., the Fall Listening Session was held at the MAC General Offices. Twenty-six residents attended the meeting. The majority of the attendees were from Minneapolis and Edina. The meeting was also attended by MAC Staff, FAA Air Traffic officials, NOC committee members, Minneapolis City Staff, and a Delta Air Lines representative.

MAC staff opened the meeting and asked each of the audience members to introduce themselves and say what they wished to achieve at the meeting. Staff then opened it up to collect ideas of topics they would like the NOC to consider including in the 2018 Work Plan. Verbal comments were collected and included in the meeting presentation slides. Written comments were also submitted at the conclusion of the meeting and summarized in Item 5 of this agenda packet. The meeting agenda, presentation, and written comments are available at <https://www.macnoise.com/our-neighbors/msp-quarterly-listening-sessions>.

The next chance for the public to participate in a Listening Session will be on January 31, 2017 at 7:00 P.M. at the MAC General Offices. Further details will be made available on the www.macnoise.com website.