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

NOC Committee Members

Jeff Hart	User Co-Chair, Scheduled Airline Representative (Delta Air Lines)
Dianne Miller	Community Co-Chair, City of Eagan Representative (City of Eagan)
Ryan Barette	Minnesota Business Aviation Association Representative
Paul Borgstrom	Chief Pilot Representative (Delta Air Lines)
Mary Brindle	At-Large Community Representative (Edina City Council)
Pam Dmytrenko	City of Richfield Representative (City of Richfield)
Chris Finlayson	At-Large Airport User Representative (Endeavor Air, Inc.)
Christine Koppen	Cargo Carrier Representative (United Parcel Service)
Patrick Martin	City of Bloomington Representative (Bloomington City Council)
Jay Miller	City of Mendota Heights Representative (Mendota Heights City Council)
Linea Palmisano	City of Minneapolis Representative (Minneapolis City Council)
Casey Potter	Charter/Scheduled Operator Representative (Sun Country Airlines)

MEETING AGENDA

February 17, 2021 at 1:30 PM

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

VIRTUAL MEETING FORMAT ONLY - The meeting is open to the public.

To participate, please join using the following options:

Microsoft Teams Link: Click here to join the meeting

By Phone: 612-405-6798, phone conference ID: 355 674 230#

1. **Consent**
   1.1. Approval of January 20, 2021 Meeting Minutes
2. **Public Comment Period**
3. **Business**
   3.1. FAA Neighborhood Environmental Survey
4. **Information**
5. **Announcements**
6. **Adjourn**

MSP NOISE OVERSIGHT COMMITTEE
DRAFT MEETING MINUTES
Wednesday, January 20, 2021 at 1:30 PM
By Teleconference Only

Call to Order

A regularly scheduled meeting of the Minneapolis-St. Paul International Airport (MSP) Noise Oversight Committee, (NOC) having been duly called, was held Wednesday, January 20, 2021, by teleconference only. Chair Hart called the meeting to order at 1:30 p.m. The following were on the teleconference:

Representatives: M. Brindle, R. Barrette, P. Borgstrom, P. Dymtrenko, J. Hart, C. Jacobson, P. Martin, D. Miller, A. Moos, L. Olson, C. Potter

Staff: C. Boyd, R. Fuhrmann, P. Hogan, B. Juffer, M. Kilian, C. Leqve, J. Lewis, K. Martin, D. Nelson, N. Pesky, B. Peters, B. Rief, M. Ross, B. Ryks, M. Takamiya,

Others: H. Rand – Inver Grove Heights, L. Moore – Bloomington, D. O'Leary – Sunfish Lake, L. Palmisano – Minneapolis, D. Sloan – Mendota Heights, B. Whalen - Richfield, L. Petzchel – Mendota Heights, J. Bergman – Apple Valley, G. Lindberg – Burnsville, G. Davis – Delta, S. Doyle – FAA, D. Drozdal – FAA, J. Ipsen – FAA, D. Langer – FAA, R. MacPherson – FAA, D. Scata – FAA, K. Welsh – FAA, S. Norling, and other members of the public

Recognition:

Mary Brindle is retiring from the Edina City Council but will continue to serve as the Edina Noise Oversight Committee Representative through the end of the term in June.

Liz Petzchel is retiring from the Mendota Heights City Council and the Noise Oversight Committee. Chad Leqve thanked Liz for her service and wished her the best in retirement.

A quorum of four Community Representatives, and four Industry Representatives was established by roll call attendance:

Community Representatives: M. Brindle, P. Dmytrenko**,** C. Jacobson, P. Martin, D. Miller, L. Olson
Industry Representatives: R. Barrette, P. Borgstrom, J. Hart, A. Moos, C Potter

1. Consent

1.1. Review and Approval of November 18, 2020 Meeting Minutes

There were no questions or revisions to the November 18th meeting minutes.

1.2. Reports

1.2.1. Monthly Operations Reports: November and December 2020

Michele Ross, Assistant Technical Advisor, provided November and December 2020 operations updates. Presentation materials available at macnoise.com/our-neighbors/msp-noise-oversight-committee-noc-meetings.

November

- Total Operations: 20,884
- Nighttime Operations: 801
- North/South/Mixed: 53/34/2 (%)
- RUS (Priority 1/2/3/4): 50/0/0/49 (%)
- RJ/Narrow/Wide: 43.3/49.4/2.29 (%)
- Complaints: 8,498
- Complaint locations: 183
- Top 10 Households: 64%
- Hours of events*: 268
- Number of events*: 53,083
- R17 procedure: 100%
- EMH Corridor procedure: 94.3%
- Crossing procedure day: 20.2%
- Crossing procedure night: 66.7%
- RUS: 50.4%

December

- Total Operations: 21,853
- Nighttime Operations: 864
- North/South/Mixed: 51/36/3 (%)
- RUS (Priority 1/2/3/4): 48/3/0/49 (%)
- RJ/Narrow/Wide: 47.7/49.1/3.2 (%)
- Complaints: 8410
- Complaint locations: 173
- Top 10 Households: 63%
- Hours of events*: 255
- Number of events*: 53,543
- R17 procedure 99.9%
- EMH Corridor procedure: 95.1%
- Crossing procedure day: 18%
- Crossing procedure night: 38.3%
- RUS: 51.1%

* Aircraft sound events above 65dB.

Chair Hart thanked Ms. Ross for her presentation and asked if the Committee had any questions. Hearing none, he asked for a motion to approve the consent agenda.
Member Brindle moved and **Member Olson seconded** approval of the Consent items listed above. The motion passed on the following roll call vote:
Ayes: Eleven
Barrette, Borgstrom, Brindle, Dmytrenko, Jacobson, Martin, Miller, Moos, Olson, Potter, Hart
Nays: None
Abstain: None

2. Public Comment Period

There were no questions or comments from the public.

3. Business

There were no business agenda items.

4. Information

4.1 FAA Neighborhood Environmental Survey

Brad Juffer, Technical Advisor, introduced this topic with a brief explanation and background of the FAA Neighborhood Environmental Survey. The FAA released the survey to the Federal Register Notice on Wednesday, January 13, 2021. The release included information regarding the findings of the survey, other research such as the effect of aircraft noise, noise metrics, modeling and visualization, and noise reduction, noise abatement, and noise mitigation. The survey is referenced as the FAA Neighborhood Environmental Survey, but it is also known to the NOC as the Community and Noise Survey as well as the FAA's Work to Reevaluate the DNL metric. A briefing was provided to the committee November 2020 regarding the FAA reauthorization act of 2018 and is one of the

remaining elements that Congress mandated the FAA complete. This study began in 2015. Because this report has only been out for one week, FAA staff were invited to provide additional information. In attendance is Rebecca McPherson, the FAA Great Lakes Regional Administrator, Kevin Welsh, Executive Director of the Office of Environment and Energy, and Don Scata, the Noise Program Director for the FAA.

Rebecca MacPherson, **FAA Great Lakes Regional Administrator,** thanked Mr. Juffer and said she was pleased to be able to brief the committee on the FAAs Neighborhood Environmental Survey and the Federal Register Notification, published last week: www.faa.gov/go/avaiationnoise. There is a sixty-day comment period which closes March 15. The link provides access to the Federal register notice, the survey and survey's study methodology, as well as a list of communities surveyed. Comments can also be submitted by going to regulations.gov and type in the Docket # FAA-2021-0037.

The survey is relatively short and was published both in English and Spanish. The methodology is sound with international protocols followed. The FAA is seeking comments about the survey and other Federal Register Notice materials.

A couple of high points: people have a much lower tolerance for noise, than they did when the FAA and other government agencies first developed the Schultz curve. This study looked at twenty different communities throughout the country with criteria set out in the report. Minneapolis was not one of the communities selected. All study communities needed to be somewhat close to an airport. The goal was to capture communities with airports of all sizes and provide a good national representation geographically. In the Great Lakes region Chicago and Detroit were studied, also surveyed were people in Billings, Montana, which doesn't have very many flights or any real noise concerns. **MacPherson** introduced the opportunity for committee members to ask technical questions of her FAA colleagues, Mr. Kevin Welsh, and Mr. Don Scata.

Co-Chair Diane Miller inquired as to why Minneapolis was not included in the study. **Kevin Welsh, Executive Director of the Office of Environment and Energy,** responded that the detailed methodology is in the report, and that a balanced sampling method was used to obtain a subset of 95 airports with over 100 jet operations and certain number of people within the 65 DNL or greater. With the 95 airports a longer set of criteria was applied, looking at temperature, geography, and many other factors, to allow a balanced selection of airports ranging from very large airports, with lots of operations, like Atlanta, Chicago, or Los Angeles, to very small airports like Billings and everything in between. Ultimately, for the FAA, this was intended for a national result. FAA did not partner with airports when conducting the survey. In fact, airports did not know about the survey in order to achieve unbiased results. Results are not intended on an individual airport basis, but to get a strong national representative sample. The report does the best job of explaining it in a concise way.

Member Brindle asked how many airports in the survey are surrounded by residential areas and how many airports provided data comparable to MSP.
Welsh responded that there were requirements to have people living in residences close to the airports. Results show that there are fewer airports with noise levels higher than 65, 70, 75 DNL, so, at the higher DNL levels (+70) all residents around those airports were surveyed. The sample roughly included an equal number of individuals from the airports selected but also throughout the DNL

contours, not just the 55-65 contours. The selection was randomized within the DNL contours to get a better representation and ultimately inform the level of annoyance for each sound level.

Member Olson thanked Mr. Welsh for attending the meeting and inquired if there was anything Mr. Welsh would like to add to Ms. MacPherson's comments about key findings, noting that Ms. MacPherson had alluded to people having a lower tolerance to noise and wondering how that might be measured or indicated. **Welsh** offered to return to the committee once people had time to review the survey results and explained that the survey was sent through the mail and 10,000 individual responses were received. To avoid bias, the questionnaire was titled a neighborhood environmental survey, instead of an airport noise survey. Respondents were asked how much they were bothered by traffic noise, smells, and other environmental stimuli in and around their neighborhood. Only one of the questions was related to aircraft noise. The respondents were asked to rank their response 1-5 with 4 and 5 considered highly annoyed. Information, from all over the country was compared to noise modeled for a particular respondent, then a national annoyance curve was created that compares the level of annoyance to a noise level. What the results show compared to the Schultz curve is that there is a substantial increase to the level of annoyance at a particular noise level.

Member Martin stated that generally speaking, many times people in lower income communities or people with language barriers respond to surveys, like the neighborhood environmental survey, at a lower rate. **Martin** asked how language barriers were tackled with this nationwide survey and were final results weighted to reflect some of those typical lower response communities. **Martin** remarked that areas typically more affected by noise are lower income communities who may respond the least. **Welsh** replied that the question was a good one and he may need to get back to Member Martin about it. He went on to say that the survey was sent in both Spanish and English.
Don Scata, **FAA Noise Program Director** answered Member Martin that environmental justice was considered and controlled for.

Member Olson remarked that the comment period may establish some future steps to help to answer why the survey reflects what it does. Around MSP flight frequency and intervals and the pure volume of flights maybe more impactful than noise levels. Is it possible to correlate the frequency and volume of aircraft that survey respondents experienced that may have impacted their responses. **Scata** commented that the DNL metric was the specific focus, but FAA has the ability to do other analysis and would certainly welcome those sorts of suggestions and comments on the research. **McPherson** stated that this one survey is part of a much larger research project and in many respects the comments received may drive future research which is part of the reason FAA is asking for comments. FAA wants to know what other information is requested and use that to supplement existing research. This survey is not a change in policy, it may be used to inform a change in policy, but that is a much larger project. The existing 65 DNL noise metric is in place for all FAA actions at this point in time. Any environmental reviews that are currently under review or that are anticipated in the near future, FAA will continue to use the existing metric. This is an important step in the research, but it is certainly not conclusive in terms of changing policy. Again, the comment period closes March 15.

Chair Hart thanked Rebecca for the FAA comments. The comment period ends March 15, knowing the importance of this topic and the obligation of MAC and NOC to respond, the Co-Chairs (as allowed by the bylaws), and MAC staff have decided to convene a special meeting to thoroughly discuss the topic, action plans and start the drafting of both MAC and NOC comments. The Special

NOC meeting will be February 17, 2021 @ 1:30PM and will be held via Teams. Mr. Juffer will send out a Teams meeting invitation. It is prudent to have a collective response that can be forwarded to MAC Commission through the PD & E Committee.

Mr. Juffer thanked the four members of the FAA for attending the meeting on short notice and stated that there are sure to be more questions as the committee gets deeper into the survey to inform how to effectively respond to the request for comment and finalizing thoughts at the February 17th meeting.

MacPherson reiterated Mr. Welsh's offer to be available for further follow-up questions at the February 17th meeting.

Chair Hart thanked Ms. MacPherson, Mr. Scata and Mr. Welsh for their input and mentioned that the survey findings will obviously consume a lot of the MAC and the NOCs time moving forward so the introduction to the survey findings was appreciated.

4.2 MSP Air Service Updates

Brad Juffer, **Technical Advisor,** introduced the MSP Air Service Update as part of the approved NOC workplan. As explained in the November NOC meeting, the NOC is very good at looking at past activity and determining what has happened and how it may impact the noise exposure for residents near the airport and how these operations are contributing to activity at the airport. This topic allows a future look at upcoming schedules as the 2020 pandemic year is behind us and as part of our 2021 air service recovery. Mr. Juffer introduced Casey Potter with Sun Country airlines - the newest member of the NOC, Greg Davis with the Delta Network team to talk about the Delta schedules, and Brian Peters, Director of Air Service Development at the MAC to talk about the MSP schedule as a whole.

Casey Potter, Assistant Chief Pilot, Sun Country Airlines, discussed data from the last two years and projections for the immediate future, especially approaching peak season in March. March of last year, Sun Country flew a full schedule, comparatively speaking, with an average of 33 flights per day. As a comparison in 2019 there were 34 flights per day on average. This March, Sun Country is expecting 31 departures per day. Sun Country/Amazon operations are fully ramped up with 12 aircraft. The same departures over the past 8-10 months are what is expected going forward with one 6 AM departure per day and one 9:30 PM arrival. Barring any major changes, that is the expectation for peak season.

Greg Davis, General Manager Schedule Planning, Delta, provided the last three years of MSP scheduled operations, represented as a peak day. The 2021 schedule is indicative of what Delta would like to fly; however, it is probably on the high end of what will actually end up being flown. Delta is working thru various scenarios around the lifting of travel restrictions and the distributions of vaccines, which will ultimately determine what the final level of service is going to be. In general, the schedule will begin to approach more of a normal pattern, similar to what was flown in 2019. The peak may be pushed a little to the right as it's anticipated that pent-up demand may come back later in the summer than normal, so would anticipate August and September may be a little bit stronger. Although schedules are getting back to what would normally operate out of MSP, the fleet mix is considerably different. All of the MD-88 and MD-90 aircraft were eliminated from the fleet before peak summer 2019. Delta has also drawn down departures on the 717, another noisy aircraft. The aircraft still exists in the fleet, but Delta does

not foresee deploying that aircraft at least not on a large scale basis. Most of the flying will be replaced by newer quieter aircraft such as the A320 and the A321.

Brian Peters, Director Air Service Development for the MAC, been directing the air service development efforts for the MAC since 2010 and provided the following definition and overview: Air service development involves data analysis to identify air service routes, that may be underserved or non-existent, that would justify more service from the airlines. Competitive air service (routes with more than one airline operating), benefit the community by providing options for travelers and helping lower airfares. MSP is well served domestically, which means air service development efforts often focus more on international opportunities.

Mr. Peters regularly engages with the business community through the Regional Air Services Partnership, to gain a better understanding of corporate travel demand from large companies in the region. He also regularly engages with tourism/destination marketing officials from Explore Minnesota, Meet Minneapolis, Visit Saint Paul, Bloomington CVB, and the Mall of America to align on efforts attracting visitors to the region from out of state.

Air service development efforts in 2021 will focus primarily on recovering service suspended due to the pandemic. MSP is averaging about 300 average daily departures in January/February 2021, compared to about 470 in January/February 2020 before the pandemic arrived. The MAC is forecasting air service to recover slowly through the first half of 2021, picking up more momentum in the second half of 2021 as the population becomes vaccinated. Service to most transoceanic international destinations is scheduled to resume in 2021, although exact dates for service resumption are very tentative and subject to change. The MAC issues a monthly Air Service Development Update newsletter. Anyone interested in receiving this should email Mr. Peters directly at brian.peters@mspmac.org

Chair Hart requested information regarding the startup of international service. **Peters** replied that Iceland Air, Condor, and KLM will be back at some point in 2021. Air France and Air Lingus are not planning to resume service in 2021 and 2022 is unknown at this time. **Chair Hart** asked if the MAC offers any incentives for new international service. **Peters** responded that there is an incentive program in place at MAC that will potentially waive up to 2 years of arrival and landing fees in addition to up to $100k in marketing support for new international service.

Chair Hart asked if there were any questions and hearing none thanked Potter, Davis, and Peters for their presentations.

4.3 2020 Complaint Data Assessment

Michele Ross, Assistant Technical Advisor, provided the 2020 complaint data assessment. In 2020 there was a 44% decrease in the number of complaints filed and a 46% decrease in the number of households filing complaints compared to 2019. Although there were fewer total households filing complaints this year, there were in fact 252 new households that filed complaints in 2020. Most of those new households were located in the City of Minneapolis.

Most cities had fewer complaints filed in 2020 then 2019, in some cases significantly fewer. A few cities did have an increase in the number of complaints filed, including Saint Paul, Edina, Mendota Heights, and Sunfish Lake. While these cities did have an increase in the number of complaints

filed, the number of households filing complaints decreased in all cities shown with the exception of Saint Paul that had an increase. The graphic is shown in the Complaint Report on page 9.

There were 761 households that filed 99,614 complaints in 2020. The total average number of operations for each complaint filed in 2019 was 2.3 and 2020 it was 2.4 – so in two very different years there were just over 2 operations for each complaint filed. So, despite all the changes in 2020 there continued to be a fairly stable number of complaints given the level of flights occurring at the airport.

The ratio of operations to complaints by hour of the day were pretty similar in 2020 and 2019 except around the hours of 4 AM, 7 AM, and 7 PM hours when the 2020 ratio is higher than in 2019. In terms of the number of complaints filed, the most are filed in the 8 PM hour with other peaks during the day in the 7 and 8 AM hours and 6 PM and 9 PM hours.

Complaints can be filed either through the macnoise.com website or through the macnoms.com Flight Tracker tool. The customer selects the date, time, airport, and has the option of choosing one or all of the nine complaint descriptors provided (describe/name each one). When filing a complaint, one must select at least one of these nine reasons for the complaint. In 2019 over 3% of complaints selected all while in 2020 it was about half that.

Helicopter operations generated the most complaints per number of operations. However, in the case of helicopter complaints, it is possible that the person filing the complaint tagged MSP airport, but the helicopter arrived and departed from a different MAC airport or from a hospital or similar. The CRJ9, CRJ2 and CRJ7 are all quieter aircraft and the chart illustrates that relative to the number of operations flown using this aircraft the number of complaints received were fewer than other types of aircraft. The MD11 flew fewer than half a percent of all operations in and out of MSP this year but represents 40% of this top ten list.

MSP operated in south and straight south flow about 37% of 2020, 51% of all complaints were received during this configuration.

In 2019, when the weather was nicer, and people were outside and/or their windows are open they are more likely to notice aircraft activity and file a complaint when temperatures were between 60 and 80 degrees there were more complaints. Extreme temperatures, when most people are indoors with either heat or air conditioning results in fewer complaints. That was not the case in 2020 where there most complaints filed were filed when weather was in the 30-40 degree range and that makes sense because operations were pre-Covid levels in January and February last year.

Member Brindle requested clarification regarding the cities that have more complaints in 2020 than 2019 (St Paul, Edina, Sunfish Lake, Mendota Heights). Although there are fewer flights, those flights are concentrated over fewer tracks - that is her observation as to why these communities have more complaints. **Ross** noted that while there are a greater percentage of operations using the parallel runways, the number of operations is far fewer than previous years. Ross also noted there were 44 fewer households that filed complaints in Edina. Of the complaints received, there were more complaints from fewer households. **Member Brindle** found it interesting because she has received several calls from people interested in moving to the Southdale area. She suspects that the increase is coming from that area. When the map is expanded, it becomes evident that

complaints are coming from between 494 and Crosstown along France Avenue so it is curious how Edina has more complaints in 2020 and Minneapolis has so many fewer complaints in 2020 as the two cities tend to share a track which is very interesting.

Member Brindle asked a question pertaining to slide 31. Where do the C130 military aircraft fit in the chart if someone has a complaint about a military aircraft? She remarked that we are seeing more complaints from low altitude military aircraft than in the past, maybe because there are proportionally more of them. **Ross** replied that typically a lot of the unknown flights are military which would be the C130. **Ross** will provide the information to Member Brindle regarding military aircraft.

Chair Hart requested clarification as to what type of aircraft was noted as an ADB. **Ross** replied that an ADB is an Antonov 124. **Chair Hart** responded that it is a very large aircraft and commented that it looks like most are used for night flights or early morning flights.

4.4 2020 Fleet Mix and Nighttime Operations Assessment

Brad Juffer, Technical Advisor, provided an overview of the 2020 Annual Fleet Mix and Nighttime Operations Assessment. The report details fleet mix that operated at MSP in 2020 and provides key data regarding aircraft altitude and data attributes about the specific operations occurring in the nighttime hour.

Airport operations peaked in 2004 when the FAA recorded 540,727 operations. Airline mergers and an economic recession in 2008 reduced total operational levels. In 2009, only 5 years after the peak of 2004, total operational levels had fallen by over 100,000 operations. As airlines more efficiently moved passengers with more seats filled and larger aircraft, total operations fell to just over 404,000 operations in 2015.

After February 2020, total operations at MSP were up 4.2% compared to 2019. Beginning in mid to late March, the airports emptied out and airline flights were cut. In May, there were fewer than 9,000 flights total, a 74% reduction from 2019. That would equate to an average of 288 flights per day when in May 2019, MSP averaged 1,105. The bottom occurred on May 9th when only 215 take offs and landings were recorded. Flight totals slowly improved during summer, fall and holiday travel. For the 2020 year-end total, 244,877 flights operated at MSP, a 40% reduction from 2019.

Even in 2020, the overwhelming majority of flights (91.9%) were classified as carrier jet aircraft. The other category is comprised of turboprop aircraft (3.1%), Small GA Jet (2.9%), Piston driven aircraft (1.1%), Military (0.1%), and unknown (.07%). The carrier jet mix is further classified into three categories – wide body, narrow body, and regional jet. In 2020, the carrier jet mix was 52% narrow body / 45% regional jet / 3% wide body. That split represents a reduction in the proportion of carrier jet operations in narrow body aircraft, (59%), and increase in the proportion of operations flown by RJ's (38%) and a similar percentage of wide body operations.

In 2020, the number one aircraft type by operations recorded by MACNOMS was the CRJ-900, replacing the CRJ-200. That aircraft moved to number two on the list, narrowly edging the Boeing 737-800. Both of those aircraft types were flown more than 24,000 times. The next two aircraft types on the list were the E-170 a regional jet and the Airbus A321 a narrow body aircraft. Both of these aircraft saw only minor reductions in total operations with big increases in the proportion

of total ops. On the wide body category, the Boeing 767-300, MD-11 and A300 were the top 3 used aircraft types. The 767-300 is flown by FDX, Delta and Atlas Air. The MD11 is flown by UPS, while the A300 is flown by UPS and FDX.

Juffer explained the Certificated noise level chart which identifies the use of each of the aircraft types classified as carrier jet that recorded operations in 2020. The CRJ-200 is certificated at between 30.6 dB and 26.5 dB below Stage 3 limits. The quietest CRJ-200 has a measurement of 82.4 dB (lateral), 75.7 (flyover) 92.3 (approach). These measurements are 11.6, 13.3 and 5.7 dB below their limit for a cumulative level of 30.6 dB below the Stage 3 limit. Cumulative output of 250.4.

Using MACNOMS, MAC staff analyzed the average altitude of aircraft at specific measurement points. For arrivals, an imaginary gate was drawn along the extended centerline five miles from runway threshold. Aircraft approaching MSP follow a 3° glide slope into the runway. For a typical right triangle with a 3° angle, and a 5 nautical mile base distance, the altitude of an aircraft at this location is expected to be 1592 feet. The aircraft in all three categories were just slightly above that, averaging just above 1600 feet. For departures, there was no consistency. Seasonal weather has typically had a large effect on average departure altitude. In 2020, the altitudes were affected by payload. Large altitude increases were prevalent beginning in April as less people boarded the aircraft out of MSP and nationally.

Every month the MAC releases passenger and operations reports as reported to us by the airlines. Using those reports, the drop off in passenger activity was even greater than the drop in operations. In April, there were only 126,000 passengers through MSP. April 2019 saw more than three million. That was a 96% reduction in passenger activity. The airlines also could not pull back their schedule fast enough to respond. The output is an average of 14 people on every flight in April when a year before it had been seven times that number.

There were 21,270 flights between 10 and 7 which is a larger 51% reduction than the overall drop in traffic, of a 40% reduction. Looking at the MSP night hours, the reduction was even larger with 2020 recording 58% fewer operations in those hours.

The south parallel runway remained the most used option for nighttime operations. If you recall from the Runway 12L and 12R nighttime arrival report from last year, the two main contributors to runway use are the airport origin and more specifically, arrival airspace gate and secondly aircraft parking location. Arrivals continue to outnumber departures three to one and many of the arrivals are from the southwest with the majority headed to either cargo ramps, Terminal 2 or the F/G concourses.

Delta and Sun Country had the highest number of operations between 10:30 and 6:00. The Delta figure represented 3.6% of their total operations for 2020, while Sun Country with a different business model flew 16% of their schedule between 10:30 and 6:00. The top four aircraft types by nighttime operations flown were narrow body aircraft.

Most night operations occurred in the 11:00 PM hour, followed by the 5:00 AM hour and the 10:30-11:00 PM half hour.

Member Olson inquired via the Teams chat feature about departure altitudes. **Juffer** explained the lower three lines represented average arrival altitude and the upper three lines depicted average departure altitude.

5. Announcements

Winter Listening Session
January 27, @ 6pm, via Teams

NOC Special Session
February 17 at 1:30pm, via Teams

March NOC Meeting
Wednesday, March 17, 2021 @ 1:30pm, via Teams

Spring Listening Session
Wednesday, April 28, 2021 @ 6pm, via Teams

Co-Chair Miller congratulated Brad Juffer and Dana Nelson. They were recently recognized with the Technology Innovation Operations National Award from the Government Technology Magazine. Juffer and other MAC staff developed a new business intelligence dashboard of key performance indicators to incorporate into communications from the emergency operations center. Nelson promoted virtual, internal, engagement through a series of lunch and learns that started with CEO Brian Ryks.

6. Adjourn

Chair Hart thanked the members of the Committee, NOC staff and residents in attendance. The meeting was adjourned at 3:31 pm.

Respectfully Submitted,
Kris Martin, Recording Secretary

MEMORANDUM

ITEM 2

TO: MSP Noise Oversight Committee (NOC)

FROM: Brad Juffer, Manager, Community Relations

SUBJECT: **PUBLIC COMMENT PERIOD**

DATE: February 3, 2021

Members of the public are welcome to attend the NOC meeting. During the meeting, a public comment period of no more than 20 minutes is included on the agenda. Individuals who wish to speak during the public comment period may do so by following the directions of the chairperson.

Below are some rules of decorum for speaking at NOC meetings.

- Each speaker will have one opportunity to speak and is allotted three (3) minutes. The public comment period is limited to 20 minutes.

- The chairperson will open the public comment period by asking for participants who wish to speak to indicate their desire following the direction of the chairperson. When called upon to speak by the chairperson, the meeting organizer will unmute your line. Speak clearly and state your name and address. If you are affiliated with any organization, please state your affiliation.

- Commenters shall address their comments to the NOC and not to the audience.

- Use of profanity, personal attacks, or threats of violence will not be tolerated.

- Interruptions from the audience, such as speaking out of turn, shouting, and other disruptive behavior are not permitted.

- If special assistance is needed to make a public comment, please contact the NOC Secretary at least two days prior to the meeting by sending an email to: nocsecretary@mspmac.org.

MEMORANDUM

ITEM 3.1

TO: MSP Noise Oversight Committee (NOC)

FROM: Brad Juffer, Manager, Community Relations

SUBJECT: **FAA NEIGHBORHOOD ENVIRONMENTAL SURVEY**

DATE: February 3, 2021

On Wednesday January 13, 2021, through a Federal Register Notice, the FAA released a summary to the public of the research programs it sponsors on civil aircraft noise that could potentially inform future aircraft noise policy. Excerpts from the Notice are included in this memo. The Notice included measures the FAA is undertaking to gain a broad understanding of aircraft noise and any potential impacts, from many different perspectives. These measures are grouped into three distinct areas:

1. Effects of Aircraft Noise on Individuals and Communities
2. Noise Modeling, Noise Metrics, and Environmental Data Visualization
3. Reduction, Abatement, and Mitigation of Aviation Noise

One of the elements of this research included a Neighborhood Environmental Survey (NES). Working with statisticians, noise experts, and other Federal agencies that have statutory, regulatory, or other policy interests in aviation noise, the FAA conducted a nationwide survey to update the scientific evidence on the relationship between aircraft noise exposure and its annoyance effects on communities around airports, based on today's aircraft fleet and operations. This effort is also known to the NOC as the Community and Noise Survey as well as the FAA's Work to Reevaluate the DNL metric. This study was originally initiated in 2015.

According to the Federal Register Notice,

> "Current FAA noise policy is informed by a dose-response curve initially created in the 1970s known as the Schultz Curve. This dose-response curve is generally accepted as a representation of noise impacts and has been revalidated by subsequent analyses over the years. The dose-response relationship it depicts has provided the best tool available to predict noise-induced annoyance for several decades. In 1992, the Federal Interagency Committee on Noise (FICON) reviewed the use of the Schultz Curve, and created an updated version of the curve using additional social survey data. The updated dose response curve was found to agree within one to two percent of the original curve, leading FICON to conclude that "the updated Schultz Curve remains the best available source of empirical dosage-effect to predict community response to transportation noise." According to the 1992 FICON Report, the DNL-annoyance relationship depicted on

the Schultz Curve "is an invaluable aid in assessing community response as it relates the response to increases in both sound intensity and frequency of occurrence." Although the predicted annoyance, in terms of absolute levels, may vary among different communities, the Schultz Curve can reliably indicate changes in the level of annoyance for defined ranges of sound exposure for any given community. While the validity of the dose-response methodology used to create the Schultz Curve remains well supported, its underlying social survey data, including the additional data used by FICON to update the curve, is now on average more than 40 years old and warrants an update. The NES was conducted to create a new nationally representative dose-response curve to understand how community response to aircraft noise may have changed."

The survey was a twelve-question survey sent to residents around 20 airports. MSP was not included as one of the 20 airports. Those airports at a minimum, needed to have at least 100 jet operations per year, and contain at least 100 households within the 60-65 dB DNL area and the 65+ dB DNL contour area. Those airports were meant to be representative of all airports by considering the geographic location, temperature, airport activity level, nighttime activity level, fleet mix and population near the airports. A follow up phone survey was conducted with a subset of households that responded to the mail survey.

The results show that compared with the Schultz Curve representing transportation noise, the NES results show a substantially higher percentage of people highly annoyed over the entire range of aircraft noise levels (i.e., from DNL 50 to 75 dB) at which the NES was conducted. Specifically, at a noise exposure level of DNL 65 dB, the updated Schultz Curve from the 1992 FICON Report indicated that 12.3 percent of people were highly annoyed, compared to between 60.1 percent and 70.9 percent within a 95 percent confidence limit from the NES.

The FAA is requesting comment on three specific areas as listed below:

1. What, if any, additional investigation, analysis, or research should be undertaken in each of the following three categories as described in this notice:

    - Effects of Aircraft Noise on Individuals and Communities;
    - Noise Modeling, Noise Metrics, and Environmental Data Visualization; and
    - Reduction, Abatement, and Mitigation of Aviation Noise?

2. As outlined in this notice, the FAA recognizes that a range of factors may be driving the increase in annoyance shown in the Neighborhood Environmental Survey results compared to earlier transportation noise annoyance surveys—including survey methodology, changes in how commercial aircraft operate, population distribution, how people live and work, and societal response to noise. The FAA requests input on the factors that may be contributing to the increase in annoyance shown in the survey results.

3. What, if any, additional categories of investigation, analysis, or research should be undertaken to inform FAA noise policy?

The FAA is accepting comment on the survey through March 15, 2021.

At the February 17, 2021 NOC meeting, the Committee will receive an update on this topic and take action on the disposition of the attached letter as the Committee's public comment on the federal docket.

REQUESTED ACTION

APPROVE THE ATTACHED LETTER AND REQUEST THAT THE MAC PLANNING, DEVELOPMENT AND ENVIRONMENT COMMITTEE ENDORSE AND FILE IT ON FEDERAL DOCKET NO. FAA-2021-0037 "OVERVIEW OF FAA AIRCRAFT NOISE POLICY AND RESEARCH EFFORTS".

MSP NOISE OVERSIGHT COMMITTEE

6040 28th Avenue South, Minneapolis, MN 55450 • 612-467-0741

February 17, 2021

Mr. Kevin Welsh
Director, Office of Environment and Energy
Federal Aviation Administration

Docket Operations, M-30
US Department of Transportation
1200 New Jersey Avenue SE
Room W12-140, West Building, Ground Floor
Washington, DC 20590

Re: Docket No. FAA-2021-0037
"Overview of FAA Aircraft Noise Policy and Research Efforts"

Dear Mr. Welsh:

Thank you for inviting comments on the Federal Register Notice regarding the scope and applicability of research initiatives being undertaken by the Federal Aviation Administration to address aircraft noise.

The Minneapolis-St. Paul International Airport Noise Oversight Committee (NOC) is the primary advisory body on aircraft noise issues associated with the Minneapolis-St. Paul International Airport (MSP). The NOC is composed of six community representatives and six aviation industry representatives that provide policy recommendations to the Metropolitan Airports Commission (MAC), which owns and operates MSP[1]. For more than 18 years, the NOC has provided a balanced forum and amassed a distinguished record of identifying and analyzing airport noise issues around MSP, which has resulted in the development of many innovative solutions[2]. These solutions are based both in acoustical mitigation as well as non-acoustic methods, such as stakeholder and community collaboration. The NOC recognizes the importance of collaboration and, in conjunction with MAC staff, maintains a robust calendar of engagements designed to meet and collaborate with our stakeholders.

[1] The NOC aviation industry representation includes air carriers, cargo air carriers, chief pilots, charter air carriers, and the Minnesota Business Aviation Association. NOC community representation includes the cities of Minneapolis, Bloomington, Eagan, Mendota Heights, Richfield and an At-Large community seat on the Committee representing the cities of Burnsville, Inver Grove Heights, St. Louis Park, St. Paul, Sunfish Lake, Apple Valley and Edina.
[2] Please see https://www.macnoise.com/our-neighbors/msp-noise-abatement-efforts.

The results of the FAA Neighborhood Environmental Survey validate a principle known by the NOC: Noise concerns around MSP do not stop at 65 decibel (dB) Day-Night Average Sound Level (DNL). Between 2017 and 2019 the NOC reviewed reports of more than 450,000 total noise complaints attributed to MSP operations. Complaint locations were overwhelmingly from locations with an annual noise level below 65 dB DNL, with only one percent of complaints filed from homes within the 65+ dB DNL noise contour.

It is with the above as background that the NOC formulates the following comments and suggestions in response to the FAA's request for public comment on the Neighborhood Environmental Survey.

First, the NOC encourages the FAA to continue to explore and accelerate implementation of creative noise reduction strategies. Technology designed to reduce noise at the source is tremendously beneficial to residents, and often provides mutual benefits to airports and operators. Research on a Low Noise Augmentation System being tested in Europe or landing gear noise reduction tests being conducted by Boeing and Safran are examples of exciting progress that will take years to materialize. The NOC is also closely monitoring research conducted by MIT through ASCENT on advanced operational flight procedures, such as modifying landing gear and flap extension and changes to aircraft speeds, to reduce noise at the source. Federally developed incentive programs should be considered for aircraft operators to install or employ noise reduction equipment and methods to accelerate the adoption of these systems and incorporate noise reduction equipment into the fleet as quickly as possible. The NOC encourages the FAA to build capabilities into the Aviation Environmental Design Tool to quantify the noise reduction benefits provided by such advanced operational flight procedures and accurately model these low-noise procedures and systems. These capabilities would allow the agency to further reduce the impact on affected residents, by actively designing and implementing noise abatement procedures at airports that would reduce the frequency of flights over residential and other sensitive land uses.

Second, as outlined in the survey results, non-acoustic factors will often help to predict the likelihood that a person is highly annoyed by aircraft noise. Frequency of successive overflights may be causing higher annoyance levels. Further, drastic or abrupt changes to aircraft activity or the mere perception of change will alter the patterns of complaints received at MSP. National public awareness and sensitivity to aircraft noise was heightened after NextGen procedure implementation issues at airports such as Phoenix Sky Harbor and San Francisco. These are two potential examples that may have impacted the survey responses. Locally at MSP, the discussion of Area Navigation procedure implementation was contentious, disruptive, and highlighted the fact that early and effective outreach to communities is a critical component to successful implementation. The NOC suggests the FAA evaluate the survey results in concert with operational or procedural changes occurring during the

survey period at these airports. The NOC further encourages the FAA to find creative ways to integrate timely and holistic community involvement when pursuing changes at airports with a long history of intelligent dialogue and active participation in noise, like MSP.

Third, the NOC urges the FAA to fully consider the impacts of aircraft noise beyond the current federally established 65 dB DNL threshold when making policy decisions on the impacts of aircraft noise in communities around U.S. airports. In its efforts, the NOC would encourage the FAA to think creatively about strategies to reduce noise impacts for residential areas outside of traditional sound insulation programs. The NOC monitors the current MSP residential sound insulation program, which is the most unique and expansive program in the country. Resulting from an agreement settling litigation at MSP, the MAC currently offers sound insulation to homes within the actual 60 dB DNL contour. This program achieves an excellent record of homeowner satisfaction with 95 percent of respondents indicating the improvements were effective at reducing aircraft noise. The NOC recognizes and appreciates the value of this successful program. Further, the NOC also recognizes that residential sound insulation is not the only form of noise reduction. Therefore, this Committee encourages the FAA to think broadly about alternative and innovative forms of noise reduction, including operational abatement measures, and provide the necessary tools and resources to airports to enable these efforts. This is an opportunity to build upon the long-established collaboration and ingenuity among airports, communities, regulators, and industry.

Fourth, the NOC urges the FAA to consider the use of alternative noise metrics to evaluate single event and threshold noise impacts, such as number of events and time above decibel thresholds and maximum sound levels. While the MAC uses the DNL metric, as directed by federal regulations, the NOC finds that alternative metrics are useful and necessary to more effectively communicate with residents concerned about aircraft noise. The MAC operates the largest system of permanent sound level meters around any airport in the country. Data from this system is available daily and reported to the NOC monthly to provide a more complete assessment of aircraft activity. From this system, the NOC monitors Events Above 65 dB and Time Above 65 dB regularly. Further, sound octave data is used to investigate sound source, L_n data has been used to explain ambient environmental sound, and L_{max} data helps to explain unusually intrusive events. The NOC will also incorporate data from temporary sound level meters during work plan studies to inform Committee members. In 2016, communities around MSP passed resolutions stating that the FAA's noise metric for determining significant impact does not convey the magnitude of high single event noise levels and that alternative noise metrics aid in making quantitative assessments for aircraft noise impacts and communicating those impacts to surrounding communities. Given the use and acceptance of alternative metrics in this community, the NOC would encourage the FAA to further study the inclusion of alternative metrics into future efforts to quantify aircraft noise exposure. Specifically, metrics that quantity the frequency of aircraft activity

and considers the time that activity occurs, would augment the benefits of DNL while also addressing the concerns of residents that feel an average level is not representative of their experience.

Finally, we applaud the efforts of the FAA to objectively study and understand the effect that aviation noise exposure may have on communities that neighbor airports. The collection of research outlined in this Federal Register notice is extensive. Current research on the Effects of Aircraft Noise on Individuals and Communities including Speech Interference and Children's Learning, Health and Human Impacts Research, Impacts to Cardiovascular Health, Sleep Disturbance, and Economic Impacts will be crucial elements in the portfolio of scientific evidence on the impact of aviation in the community. These results will more effectively inform future policy makers on the best use of resources and techniques available to minimize the impact on our communities. The NOC would encourage the FAA to prioritize these efforts and complete its research to enable the next phase of this discussion to begin. In keeping with its mission to provide noise program recommendations to the MAC, the NOC is poised and eager to participate in discussions as to how aircraft noise in communities near airports may be effectively managed as well as the FAA's future decisions on federal noise policy.

Sincerely,

Jeff Hart
NOC Airport User Co-Chair

Dianne Miller
NOC Community Co-Chair

cc: MAC Planning, Development & Environment Committee
Brian Ryks, MAC Executive Director / CEO