

## MEETING CANCELLATION NOTICE

The March 18, 2020 Noise Oversight Committee is cancelled based on Governor Walz's executive order directing most Minnesotans to stay home to help stop the spread of the COVID-19 virus.

## MEETING CHANGE NOTICE

The March 18, 2020 Noise Oversight Committee will begin at 1:30 p.m. at Richfield City Hall, 6700 Portland Avenue, Richfield, MN. (The Committee Pre-meeting will begin at 1:00 p.m. in the Bartholomew Meeting Room – NOC members, alternates, and at-large contacts only).

Due to limited parking, carpooling is greatly appreciated.

Additionally, user Co-Chair Jeff Hart will be acting Chairperson for the meeting.



## 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)
Todd Lawrence	Charter/Scheduled Operator Representative (Sun Country Airlines)
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)

### MEETING AGENDA

March 18, 2020 at 1:30 PM

**Richfield City Hall, City Council Chambers**

**6700 Portland Avenue, Richfield, MN 55423**

*(Jeff Hart, Delta Air Lines, will be the acting Chairperson for the meeting)*

**\*Note:** 1:00 to 1:30 PM – Committee Agenda Review Session

(NOC members, alternates, and at-large contacts only in the Bartholomew Room)

1. 1:30 Review and Approval of January 29, 2020 Meeting Minutes
2. 1:30 Review of Monthly Operations Reports: January and February 2020
3. 1:40 Public Comment Period
4. 2:00 2019 Annual Noise Contour Report and Residential Noise Mitigation Program Eligibility
5. 2:20 Eagan Request to the FAA
6. 2:40 MSP Complaint Data Assessment
7. 3:00 MSP 2040 Long Term Plan Stakeholder Engagement Update
8. 3:10 Minnetonka Mobile Noise Monitoring Study Plan
9. 3:15 Announcements
10. 3:15 Adjourn

**Public Comment Notice:** A public comment period of no more than 20 minutes will be added to each agenda. Members of the public wishing to address the NOC during this period are allotted 3 minutes to speak. Please complete and submit a speaker card prior to the start of the meeting or have arrangements made with your NOC representative prior to the meeting date.



**MSP NOISE OVERSIGHT COMMITTEE**

**DRAFT MEETING MINUTES**

Wednesday, January 29, 2020 at 1:30 PM

MAC General Office

Lindbergh Conference Room

**Call to Order**

A meeting of the MSP Noise Oversight Committee, having been duly called, was held Wednesday, January 29, 2020, in the Lindbergh Conference Room at the MAC General Office building. **Chair Miller** called the meeting to order at 1:33 PM. The following were in attendance:

**Representatives:** J. Hart; D. Miller; L. Olson; C. Koppen; P. Dmytrenko; C. Finlayson; P. Borgstrom; J. Bergman, L. Petschel, T. Cossalter, L. Moore

**Staff:** D. Nelson; B. Juffer; J. Lewis; M. Ross; R. Fuhrmann; B. Ryks; N. Pesky; B. Rief

**Others:** R. MacPherson – FAA; R. Mathews – FAA; H. Bjornson – FAA; S. Fortier – FAA; K. Mara – FAA; D. Nuccio – US Department of Housing and Urban Development (HUD); C. Diaz – US Representative Craig’s Office; D. O’Leary – Sunfish Lake; H. Rand – Inver Grove Heights; R. Goldser – Eagan; G. Norling – Mendota Heights; H. Leslie - Eagan; L. Grotz – Edina

**1) Review and Approval of November 20, 2019 Meeting Minutes**

A motion was made by **Co-Chair Hart, Delta Air Lines**, and seconded by **Representative Bergman, City of Apple Valley**. The motion passed unanimously; the minutes were approved.

**2) Review of Monthly Operations Reports: November and December 2019**

**Michele Ross, Assistant Technical Advisor**, reviewed and presented the November and December 2019 operations report for MSP airport.

**November**

- Total Operations: 31,426
- Nighttime Operations: 1,938
- North/South/Mixed (%): 44/36/11
- Complaints: 10,967
- Complaint locations: 221
- Hours of aircraft sound events: 416

**December**

- Total Operations: 32,840
- Nighttime Operations: 2,314
- North/South/Mixed (%): 35/45/12
- Complaints: 10,852
- Complaint locations: 187
- Hours of aircraft sound events: 367

- |   |   |
|---|---|
| • Runway 17 Dep Procedure: 99.5%        | • Runway 17 Dep Procedure: 99.5%        |
| • Eagan/Mendota Heights Corridor: 86.9% | • Eagan/Mendota Heights Corridor: 96.7% |
| • Crossing-in-the-Corridor day: 25.7%   | • Crossing-in-the-Corridor day: 25.3%   |
| • Crossing-in-the-Corridor night: 38.0% | • Crossing-in-the-Corridor night: 47.7% |
| • Runway Use System: 53.8%              | • Runway Use System: 54.1%              |

**Ross** also pointed out that there was a weather event on November 26 with strong northeasterly winds. MAC staff was able to coordinate with the FAA to alert them to the flights that were out of the corridor. This was an opportunity to use the real-time abatement tool to bring the awareness to the use of the procedure during the weather condition. **Ross** continued and presented the year end operations information from 2018 and 2019 for MSP airport.

**2018**

- Total Operations: 405,305
- North/South/Mixed (%): 34/46/12
- Complaints: 139,524
- Complaint locations: 1,484
- Hours of aircraft sound events: 4,938
- Runway 17 Dep Procedure: 99.4%
- Eagan/Mendota Heights Corridor: 94.4%
- Crossing-in-the-Corridor day: 34.5%
- Crossing-in-the-Corridor night: 40.7%
- Runway Use System: 53.8%

**2019**

- Total Operations: 403,665
- North/South/Mixed (%): 36/44/13
- Complaints: 177,650
- Complaint locations: 1,406
- Hours of aircraft sound events: 5,248
- Runway 17 Dep Procedure: 99.5%
- Eagan/Mendota Heights Corridor: 92.5%
- Crossing-in-the-Corridor day: 28.8%
- Crossing-in-the-Corridor night: 44.1%
- Runway Use System: 54.4%

**3) Public Comment Period**

**Chair Miller, City of Eagan**, introduced the public comment period protocol and announced there was one speaker who submitted a comment card.

**Ron Goldser, Eagan**, verbally asked a question about how valid the noise complaint statistics are. Some people have decided to come into the NOC meeting to make their comments in person.

**Goldser** went on to discuss nighttime operations noting the percentage of flights of have decreased over Eagan the absolute quantity of overall flights over the area has increased. He also pointed out to the committee that a fellow advocate in Eagan, Ted Gladhill, sent an email to the committee chair. He paraphrased the email regarding nighttime flight activity to reflect Mr. Gladhill’s comments. Mr. Goldser indicated that nighttime flights should be held to a higher standard of noise reduction suggesting there should be a different corridor procedure for nighttime departures. **Goldser** mentioned a discussion he had with Brad Juffer about flight elevations where he asked why flights don’t take off higher and quicker which is due to the competition with arrivals. If you are flying longer out before you start turning at the same elevations, you will not run into the conflict with arrivals so use the longer distances for

departures before you turn. He mentioned that this is part of the recommendation before the FAA currently.

#### 4) **VOR Minimum Operational Network**

**Brad Juffer, Technical Advisor**, mentioned that the overview was included in the agenda. He introduced Rebecca McPherson from the Federal Aviation Administration (FAA).

**Rebecca MacPherson, Great Lakes Regional Administrator, FAA**, noted she appreciates the opportunity to brief the Committee about the partial decommissioning of the MSP Very-High Frequency Omnidirectional Radial / Distance Measuring Equipment (VOR/DME) that will take place two years from now and partner with the Committee and the public. The FAA acknowledged community concerns related to this issue due to the past (2012/2013) Area Navigation (RNAV) implementation proposal at MSP. RNAV is a tool that can be used in various ways. The FAA has no intention of implementing the types of changes that were proposed in 2012/2013.

**MacPherson** explained the initial VOR Minimum Operational Network (VOR MON) project purpose and intent, saying the MSP VOR/DME will be partially decommissioned affecting the lateral navigation capability for pilots. The distance measuring (or “DME”) portion of the VOR/DME will remain in service. This equipment will continue to provide range information to pilots when procedurally required and GPS equipment is not used, or the GPS signal is not available. This VOR will be decommissioned as part of the FAA’s NextGen program where GPS based RNAV and Performance Based Navigation (PBN) will replace the legacy ground-based system. The MON allows aircraft to fly at an altitude of at least 5,000 feet, coast to coast, to an airport of safe landing using ground-based navigation such as an Instrument Landing System or VOR. It will provide navigation services so that an aircraft will never be more than 100 miles away from a point of safe landing. Its sole purpose is to provide an orderly, reliable and safe way to get flying aircraft out of the National Airspace System (NAS) and into a suitable airport in the event of a widespread GPS system disruption. The MSP VOR is not required to be part of this streamlined network; therefore, it will need to be decommissioned.

**MacPherson** then stated that the effect of the change at MSP for communities in and around MSP – there will be no difference. We do not expect there to be any difference using RNAV. The impact will not change.

The FAA is aware of the sensitivities in the communities. The FAA asked for the NOC members to assist the FAA in educating the community on these highly technical issues. A refresher course by the FAA could be offered if the members of the NOC are interested. In addition, because of the history at MSP, the FAA decided it will do an informational meeting in June or July to educate the community at large as to what the potential impacts of decommissioning the MSP VOR and how that will or will not change from what they are experiencing today. **MacPherson** continued by noting that this informational meeting will be conducted independently from the environmental process and will serve an important educational component to the community. It is anticipated that an environmental review will be started in early December 2020. It is also anticipated that by end of March 2022 there would be a

publication of the environmental report. The hope is that they will be able to decommission the VOR by the end of 2022.

**Representative Petschel, City of Mendota Heights**, said the FAA's first attempt to implement RNAV procedures at MSP created distress within the surrounding communities. As a result, the NOC developed a community engagement roadmap for the FAA to re-engage with the communities related to RNAV procedures. The communities have very low levels of trust. The community is deeply scarred by previous interaction with the FAA over this type of navigational change. The FAA needs to provide the staff and resources to engage with the communities directly. The FAA should review the roadmap and take the recommendations to heart versus what seems to be happening is the FAA is stating what they are willing to do as though the roadmap was never drafted.

**Rebecca MacPherson** noted the community outreach proposed for June and July is a direct result of the roadmap. This type of engagement will not be done in other communities. The FAA understands it is their role to communicate the impact of these changes to the communities in a manner that is easily understandable. The FAA would appreciate NOC members, to the extent that they feel comfortable, emphasizing to their communities that the proposed changes are not the same as 2012/2013. The FAA has adapted over the past eight years. **MacPherson** noted that a similar project was done at Chicago O'Hare. **Petschel** noted that is the type of example that was requested in reference to a case study to include additional information in terms of noise complaints, etc., to share with the group. **MacPherson** replied that the Chicago O'Hare case study and complaint profile will be incorporated into the outreach in June and July. **MacPherson** went on to note that there will be no narrowing of departure headings in Minneapolis.

**Representative Bergman, City of Apple Valley**, commented that this has been implemented in Chicago and Nashville and sharing the information from those cities, even with the differences between MSP, could serve to provide some level of comfort to communities. Illustrate the facts with figures, maps, diagrams, etc.

**Representative Petschel, City of Mendota Heights**, commented that outreach should be specific to communities at the end of each runway and not just one general overview. **MacPherson** responded that the FAA will provide that information during their outreach in June and July.

**Representative Finlayson, Endeavor Air**, asked if RNAV could be used to increase compliance with existing noise abatement procedures. He noted that as an operator, he wants to be 100% in compliance with what the community wants. **MacPherson** replied that the timing of the project may preclude the FAA from adding that work but could be done through an alternate process.

**Representative Olson, City of Minneapolis**, questioned whether new procedures would be incompatible with existing abatement procedures. If it is indeed true that the new tracks mimic the existing tracks, then we can engage with our communities. But we cannot rush the process.

**Olson** requested clarification about the technical aspects of the MSP VOR being decommissioned and the potential impact to navigation. Additionally, **Olson** requested clarification why RNAV procedures are required to be implemented when sufficient VOR coverage will remain in place to operate existing procedures. **MacPherson** clarified that redundancies exist and the FAA does not anticipate any impact to MSP in the event of a GPS outage. Additionally, the air traffic control can increase separation standards as needed. **MacPherson** noted that the procedures would be implemented whether in 2022 or 2026. Additionally, MSP was identified for decommissioning because it has other robust navigational tools that some smaller airports might not and therefore can function without a VOR whereas other smaller airports might not.

**Representative Bergman, City of Apple Valley**, encouraged the FAA to vet information with MAC staff and NOC before it is released. The working relationship with local FAA and the MAC is great and does not want to see that falter.

**Chair Miller** asked for a time frame when the FAA would be updating the NOC again. **MacPherson** indicated that the FAA would be back to update the NOC prior to June. **Co-Chair Hart** noted an expectation that there will be a series of three to four community meetings and concurred that the messaging should be vetted with the MAC. **MacPherson** replied that the outreach is still being formulated.

**Representative Olson, City of Minneapolis** stated that certain data is needed, time is needed to digest it, and time to gather and answer questions, we need to refer back to the resources, to outline the outreach plan. **Olson** noted an observed effort from the FAA to improve their engagement process. She emphasized this needs to be a collaborative, unrushed, public outreach process.

**MacPherson** responded to Chair Miller's questions regarding the time frame when the FAA would be updating the NOC regarding the Eagan request. The staff at the MSP Tower of the FAA has had the opportunity to review the four requests for changes to how the MSP Tower directs aircraft departures from Runway 17 at MSP submitted to the FAA by the NOC through the MAC. The requests that were outlined are based on a longer list of recommendations developed by residents of the City of Eagan and are intended to reduce the amount of noise experienced by Eagan residents.

The NOC made four recommendations to the FAA:

***Adjustment Request #1: Direct departures from Runway 17 with an initial departure fix of COULT or ZUMBRO to Runway 12R or Runway 12L unless the departure would impede or be impeded by arrival traffic to those runways.***

The FAA determined that this request potentially has merit if limited to departure fix COULT. A more detailed study will need to be performed to determine the time periods when this procedure would be feasible.



***Adjustment Request #2: Vary the use of Runway 17 departure headings to limit the frequency of overflights in neighborhoods.***

The FAA determined that this would raise safety and efficiency concerns and therefore would not be feasible.

***Adjustment Request #3: Better fan aircraft departing Runway 17 by increasing the use of a 180 degree heading for those aircraft that would normally be assigned a 120, 140 degree, or 155 degree heading.***

The FAA determined that this would raise safety and efficiency concerns and therefore would not be feasible.

***Adjustment Request #4: Move runway 12R and 12L westbound departures to Runway 17 to take advantage of the 2.5 mile river departure procedure, provided the aircraft can be directed to follow the Minnesota River for no less than 5 nautical miles.***

The FAA determined that this request potentially has merit if limited to nighttime operations. It was noted that air traffic control does not direct aircraft to follow landmarks or geographical features. Instead, MSP air traffic controllers direct aircraft via headings to be flown until they intercept their flight planned routes via established and published procedures that are flight checked and certified.

If the MAC decides to move forward, the MAC and the FAA will need to determine and agree upon who would bear the cost of development and implementation.

## **5) Airline Policies and Procedures**

**Item tabled from November 2019 Meeting.**

**Brad Juffer, Technical Advisor**, explained that there are several variables impact the flight of an aircraft. The MAC has received comments at recent community meetings that aircraft have been lower on departure in recent months and years. It has also been suggested that pilots can request any flight path they wish when departing from MSP. **Juffer** introduced **Delta Chief Pilot and NOC Member, Paul Borgstrom** and **Endeavor Chief Pilot and NOC Member, Chris Finlayson** to offer their companies' standard operating procedures and personal perspective as pilots on these topics.

**Representative Borgstrom, Delta Air Lines** and **Representative Finlayson, Endeavor Air**, noted each airport has unique noise abatement procedures but there are general procedures that are effective at reducing noise as well. Out of MSP there are no specific departure procedures, pilots fly headings provided to them by air traffic control. A typical departure profile, also called the Distant Noise Abatement Departure Profile, across all Delta and Endeavor Air fleets, includes reduced thrust during departure for both engine efficiency and noise to about 1,000 feet. This means aircraft depart at the slowest speed to be safe and also to gain altitude as quickly as possible. Pilots are provided information and updates regularly. Go arounds are not a frequent occurrence but are a common part of trainings. Runway and airport specific procedures exist. Go arounds should not result in noise impacts to communities.

**Borgstrom** continued that at MSP, pilots fly the heading and altitude provided by air traffic control. Only exceptions would be a weather issue, such as a thunderstorm, or if there is an emergency situation then could use captain's authority as needed (very rare). **Representative Finlayson** noted that even if a pilot requests a specific runway that is not a guarantee that air traffic control will authorize that request.

**Representative Petschel, City of Mendota Heights**, requested clarification, regarding MSP deconfliction (for safety on the ground and safety in the air) and whether that has eliminated a lot of the ability of pilots to request different runways and headings. **Borgstrom** noted that the ability to make a request is still available.

**Representative Olson, City of Minneapolis**, asked whether there are certain procedures that vary from carrier to carrier. **Borgstrom** and **Finlayson** agreed there is not much variation.

#### 6) **MSP Fleet Mix and Nighttime Operations Assessment**

**Brad Juffer, Technical Advisor**, explained that the 2020 NOC Work Plan includes an assessment of current fleet mix and nighttime operational trends. **Juffer** went on to discuss the 2019 year-end data in comparison with historical trends. The report included the following sections: Historical Carrier Jet Trends, Trends in Aircraft Passenger Load Factors, MSP Carrier Jet Usage with Cumulative Certificated Noise Levels, Average Altitude Trends, Average Daily Nighttime Operations, Nighttime Operations by Runway, Airline, Aircraft Type, Origin/Destination, Trends in Nighttime Operations by Hour and Scheduled versus Actual Nighttime Operations by Hour.

**Representative Petschel, City of Mendota Heights**, asked if the nighttime flight changes are the result of schedule changes or weather changes. **Juffer** responded that there are multiple factors that impact arrivals and departures but there is also an increase in scheduled departures in the 10:30 to 11pm hour resulting in an increase in operations during MSP defined nighttime (6am to 10:30pm) versus a static number of departures during FAA-defined nighttime (7am to 10pm).

**Representative Olson, City of Minneapolis**, noted that flights at 2, 3, 4 in the morning, although less than other times of day, are increasing and that those flights are not a result of delays but seem to be scheduled. Those are the flights that would wake someone up and disrupt their sleep. **Juffer** replied that flights in the 1, 2, 3 am hours are not scheduled but are mostly a result of delays. Scheduling does have a nominal impact as the additional flights scheduled in the 10:30 to 11pm hour that are delayed could push into these hours.

**Representative Olson** commented that of the runways used at night – half of all departures are going over Minneapolis at night (40% of arrivals as well). There are other ways we could use the runways at night to fly over less populated areas. **Juffer** noted that whenever possible departures should be using Runways 12R and 12L to overfly less populated areas at night. **Juffer** also noted that air traffic control had more frequent use of Mixed Flow (arrivals on 30L and 30R with departures on 17 and, to a lesser extent, 30L and 30R) in 2019.

**Chair Miller, City of Eagan**, noted that there are voluntary agreements with carriers, and asked what authority does the MAC have in terms of restricting nighttime aircraft activity. **Juffer** replied the MAC is unable to restrict any aircraft that is properly certificated from utilizing MSP at any time of day without going through a rigorous Part 161 study and approval process with the FAA. The MAC cannot stop nor use differential landing fees by time of day or aircraft type due to federal legislation within the Airport Noise and Capacity Act. The MAC does make efforts to reinforce the voluntary agreements with carriers as feasible. The MAC also reviews how to best utilize the Runway Use System at nighttime and will be presenting a report regarding runway balancing later this year per the 2020 NOC workplan. **Miller** commented that the 30s are not balanced right now and glad we are looking into that. **Miller** asked if there were any opportunities to better use the Runway Use System at night. **Juffer** responded that the FAA has made strides in 2019 to use more unused flows at nighttime to take advantage of compatible land. The MAC does coordinate with FAA to utilize those procedures particularly at night. However, air traffic control only utilizes procedures as they exist today. Controllers will not deviate from established procedures.

## 7) Review of Winter Listening Session

**Michele Ross, Assistant Technical Advisor**, reviewed the Winter Listening Session. The primary goal of Listening Session Meetings 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 related to MSP. On January 22, 2020 at 7:00 pm the Winter Listening Session was held at the MAC General Offices. One resident from Eagan attended the meeting. Also, in attendance were NOC Co-Chair Jeff Hart, NOC members Loren Olson, Dan O'Leary and Paul Borgstrom as well as MAC staff.

Topics raised during the meeting included:

- Balance between the airport as a community asset and the effect of noise on communities
- Efforts by MAC, NOC, FAA and neighbors to address noise concerns
- Variability and unpredictability of aircraft activity over Eagan
- Air traffic control standard operating procedures
- Education and engagement strategies for communities

## 8) Announcements

**No announcements**

## 9) Adjourn

A motion to adjourn was made by **Representative Dmytrenko, City of Richfield**, and seconded by **Co-Chair Hart, Delta Airlines**. The meeting adjourned at 3:45 pm.

The next meeting of the NOC is scheduled for **Wednesday, March 18, 2020 at 1:30 PM**

Respectfully Submitted,  
Kalae Verdeja, Recording Secretary

# MEMORANDUM

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Michele Ross, Assistant Manager, Community Relations

**SUBJECT:** **REVIEW OF MSP MONTHLY OPERATIONS REPORTS: JANUARY AND FEBRUARY 2020**

**DATE:** March 4, 2020

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 March NOC meeting, MAC staff will provide a summary of this information for January and February 2020. To view these summary reports prior to the meeting, visit the “Archive” section at the link above.

# MEMORANDUM

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Brad Juffer, Manager, Community Relations

**SUBJECT:** **PUBLIC COMMENT PERIOD**

**DATE:** March 4, 2020

Members of the public are welcome to attend NOC meetings. During each meeting, a public comment period of no more than 20 minutes is added to each agenda. Individuals choosing to speak during the public comment period may do so by submitting a speaker card prior to the meeting start time or by contacting their NOC representative prior to the meeting date. Speaker cards will be made available at the sign-in table before each meeting. Submit completed speaker cards to the NOC Secretary or to any NOC member before the meeting begins.

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.
- When called upon to speak, speak clearly into the microphone, 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 calling 612-726-8100 or send an email to [nocsecretary@mspmac.org](mailto:nocsecretary@mspmac.org).

# MEMORANDUM

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Brad Juffer, Manager, Community Relations

**SUBJECT:** **2019 ANNUAL NOISE CONTOUR REPORT AND RESIDENTIAL NOISE MITIGATION PROGRAM ELIGIBILITY**

**DATE:** March 4, 2020

In October 2007, the Metropolitan Airports Commission (MAC) and the cities of Minneapolis, Richfield and Eagan, received judicial approval of a Consent Decree that provided settlement of the noise mitigation lawsuits filed in 2005. Pursuant to the Consent Decree, the MAC is required, by March 1<sup>st</sup> of each calendar year, to prepare an Annual Noise Contour Report that reflects an assessment of actual noise generated by aircraft operations at Minneapolis-St. Paul International Airport (MSP).

### Consent Decree Background

The first amendment to the 2007 Consent Decree was initiated in 2013 and established mitigation eligibility based on annual assessments of actual MSP aircraft activity rather than projections. To be eligible for noise mitigation, a home would need to be located for three consecutive years in a higher noise mitigation impact area when compared to the home's status under the terms of the 2007 Consent Decree. The first of the three years must occur by 2020. The Full 5-decibel Reduction Package is offered to single-family homes meeting these criteria inside the actual 63 dB DNL noise contour while the Partial Noise Reduction Package is offered to single-family homes in the actual 60-62 dB DNL noise contours. A uniform Multi-Family Noise Reduction Package is offered to multi-family units within the actual 60 dB DNL noise contour. Homes will be mitigated in the year following their eligibility determination. The 2013 actual noise contour marked the first year in assessing this new mitigation program.

A second amendment was made to the 2007 Consent Decree in 2017. This amendment allows the use of the Aviation Environmental Design Tool (AEDT) to develop the actual noise contours each year, beginning with the 2016 actual noise contour. In 2015, AEDT replaced the Integrated Noise Model (INM) as the federally-approved computer model for determining and analyzing noise exposure and land use compatibility issues around airports in the United States. The second amendment also provided clarity on the Opt-Out Eligibility criteria. Specifically, single-family homes that previously opted out of the Partial Noise Reduction Package may participate in the Full 5-decibel Reduction Package, provided the home meets the eligibility requirements.

### 2019 MSP Annual Noise Contours

The number of aircraft operations (takeoffs and landings) are one prominent factor in noise contour calculation. Actual aircraft operations have decreased significantly at MSP over the years, despite significant increases in passenger levels at MSP. This has occurred largely because airlines now fly larger planes with more seating and have increased seat occupancy rates (load factors).

Based on the 406,073 total operations at MSP in 2019 (per FAA data) versus the 582,366 total forecasted operations at MSP in 2007, the actual 2019 60 dB DNL contour is approximately 29 percent smaller than the 2007 Forecast Contour and the 2019 65 dB DNL contour is approximately 39 percent smaller than the 2007 Forecast Contour. The predominant contraction in the contours from the 2007 forecast to the 2019 Annual Noise Contour scenario is driven largely by fleet mix changes, including a significant reduction in Hushkit Stage 3 aircraft operations, and a reduction of 483 average daily operations.

Nonetheless, there are homes in areas that qualify for mitigation as outlined by the terms of the Consent Decree. There is a small area under an arrival path in Eagan where the 2019 Actual Contour extends beyond the 2007 Forecast Contour, where some homes are attaining eligibility for mitigation. Areas of the 2019 60 dB DNL contour that extend beyond the 2007 Forecast Contour in Minneapolis have already been included in the amended Consent Decree's mitigation efforts between 2017 and 2020. Areas where the 2019 Annual Noise Contour extends beyond the 2007 Forecast Contour can largely be attributed to nighttime runway use variances between what was forecasted for 2007 and what occurred in 2019, particularly an increase in nighttime arrival operations on Runway 12R and 30L.

#### First-Year Candidate Eligibility

There are no single-family homes that achieved the first year of eligibility with the 2019 Annual Noise Contour. There are no multi-family units that achieved the first year of eligibility with the 2019 Annual Noise Contour.

#### Second-Year Candidate Eligibility

The 2019 Annual Noise Contour shrunk under the arrival lobe of Runway 12R, resulting in all homes in Minneapolis that had previously achieved one year of eligibility not reaching a second year of eligibility. Similarly, the contraction of the contour northwest of Lake Harriet resulted in all multi-family units in Minneapolis that had previously achieved one year of eligibility not reaching a second year of eligibility.

#### Third-Year Candidate Eligibility

Single-family: All 16 single-family homes that had two years of eligibility in 2018 were in the 60 dB DNL in the 2019 Annual Noise Contour and are now entered into the 2021 mitigation program. All of these homes are located under an arrival path on one block in Eagan and are eligible for the Partial Noise Reduction Package. The homes on this block were previously

eligible for homeowner reimbursements during the original Consent Decree Program. In cases where homes have received previous reimbursement from the MAC, the value of those improvements will be deducted from the efforts required to increase the home mitigation relative to the actual noise level, per the amended Consent Decree. Homeowners of eligible properties will be notified in writing by the MAC. There are no multi-family units that achieved the third year of eligibility with the 2019 Annual Noise Contour.

Figure 1: 2019 MSP Noise Contours with Mitigation Program Eligibility – Minneapolis

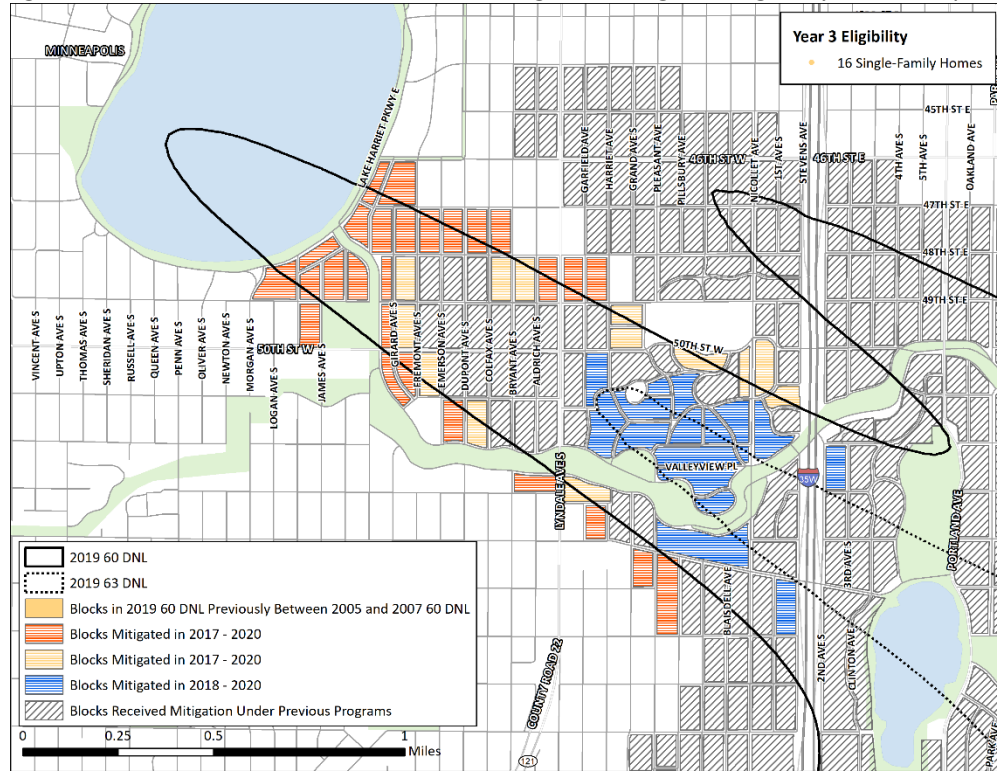
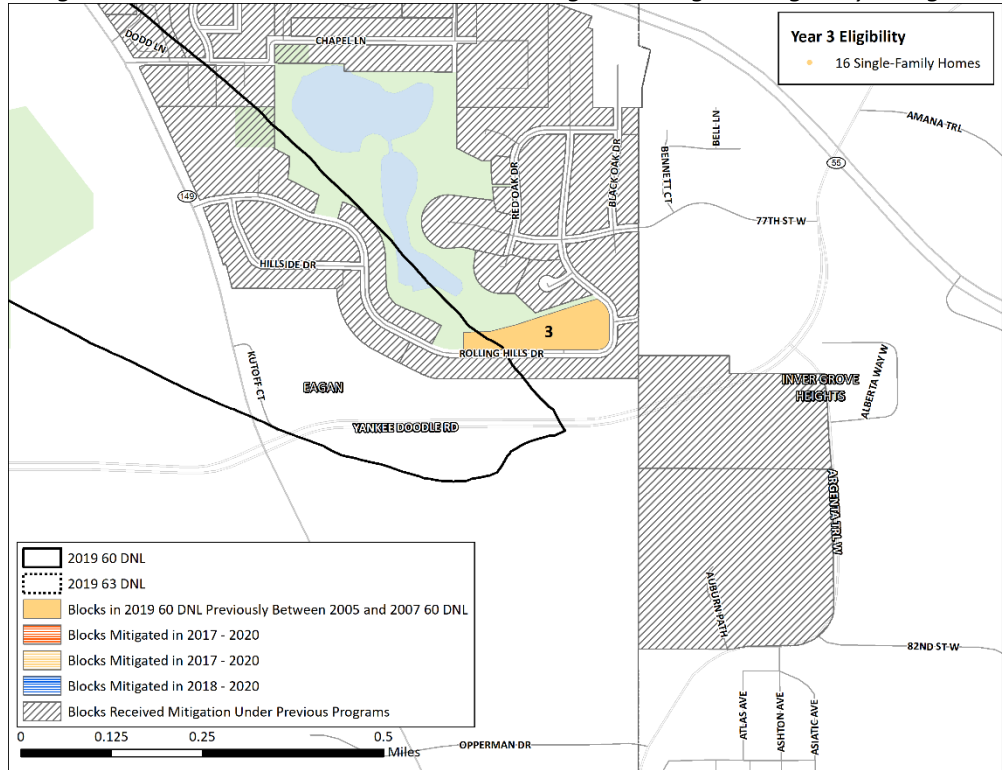




Figure 2: 2019 MSP Noise Contours with Mitigation Program Eligibility – Eagan



2017 Mitigation Program

In 2017 the MAC began the project to provide mitigation to 138 single-family homes that became eligible by virtue of the 2015 actual noise contour. As of January 13, 2020, 117 homes have been completed, 14 homes declined to participate while 7 homes were moved to the 2020 program as a result of homeowner actions. Two multi-family structures also were eligible to participate in the Multi-Family Mitigation Program in 2017. One property is completed, and one property declined to participate. The total cost for the 2017 Mitigation Program was \$2,442,685. The 2017 Mitigation Program is now complete.

2018 Mitigation Program

In 2017, the MAC began the project to provide mitigation to 283 single-family homes that became eligible by virtue of the 2016 actual noise contour. As of January 13, 2020, 230 homes have been completed, 27 homes declined to participate while 23 homes were moved to the 2020 program. The 2018 Mitigation Program does not include any multi-family properties. The total cost for the 2018 Mitigation Program through January 13, 2020 is \$7,280,869.

2019 Mitigation Program

In 2018, the MAC began the project to provide mitigation to 429 single-family homes that became eligible by virtue of the 2017 actual noise contour. As of January 13, 2020, including the homes transitioned from the 2017 and 2018 programs, 214 homes have been completed, 159 homes are in the construction or pre-construction phase and 68 homes declined to participate. The 2019

Mitigation Program does not include any multi-family properties. The total cost for the 2019 Mitigation Program through January 13, 2020 is \$6,548,594.

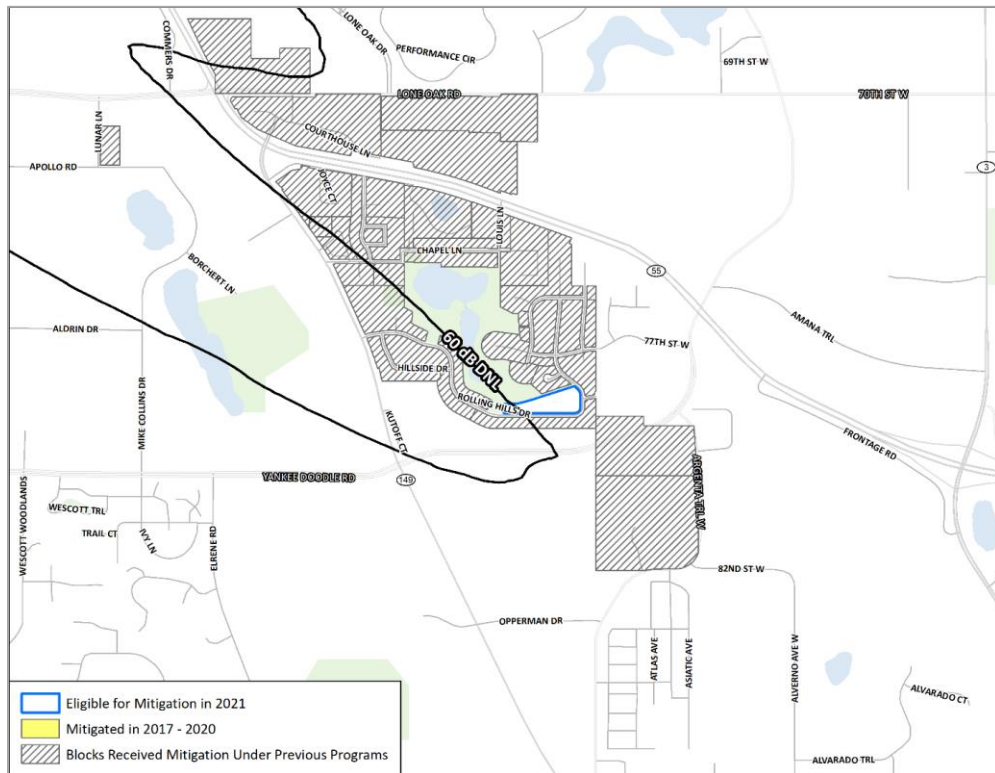
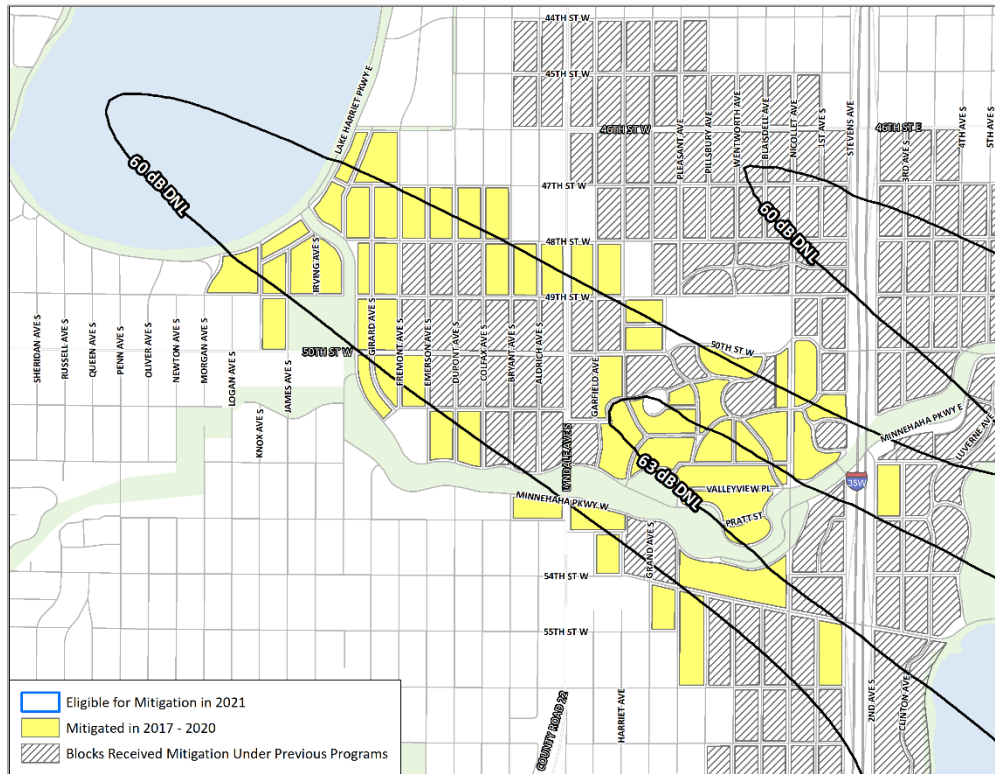
### 2020 Mitigation Program

In 2019, the MAC began the project to provide mitigation to 243 single-family homes that became eligible by virtue of the 2018 actual noise contour (164 are eligible for the partial mitigation package and 79 are eligible for the full mitigation package). As of January 13, 2020, including the homes transitioned from the 2018 and 2019 programs, zero homes have been completed, 261 homes are in the construction or pre-construction phase and 4 homes declined to participate. The 2020 Mitigation Program does not include any multi-family properties. As of January 13, 2020, there have not been any financial expenditures attributed to the 2020 Mitigation Program.

The 2019 Annual Noise Contour Report is available at: <http://www.macnoise.com/noise-mitigation-program/msp-annual-noise-contour-analysis-reports>.

MAC staff will present the 2019 Annual Noise Contour Report and associated mitigation eligibility at the March 18, 2020 NOC meeting.

Figure 3: 2019 MSP Noise Contours with 2017-2020 Mitigation Program Eligibility



# MEMORANDUM

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Brad Juffer, Manager, Community Relations

**SUBJECT:** **EAGAN REQUEST TO THE FAA**

**DATE:** March 4, 2020

In September 2019, the Eagan City Council sent a letter to the NOC requesting endorsement of the recommendations crafted by the Eagan Airport Relations Commission to modify specific procedures to reduce the number of departures from MSP that fly over residential portions of Eagan.

The NOC considered the letter and the specific requests on November 20, 2019. The Committee forwarded four proposals to the MAC Planning, Development and Environment Committee for review. On December 2, 2019, the MAC unanimously approved forwarding the proposals to the Federal Aviation Administration (FAA).

The next step in the process, as outlined by the FAA in September, was for the agency to conduct a high-level safety and feasibility review. The FAA completed that review and provided the attached letter detailing the results which are also summarized below.

**Request #1 – Direct departures from Runway 17 with an initial departure fix of COULT or ZMBRO to Runway 12R or Runway 12L unless the departure would impede or be impeded by arrival traffic to those runways.**

The FAA has determined that this request potentially has merit if limited to the COULT departure fix.

**Request #2 – Vary the use of Runway 17 departure headings to limit the frequency of overflights in neighborhoods.**

The FAA determined that this would raise safety and efficiency concerns and therefore would not be feasible.

**Request #3 – Better fan aircraft departing Runway 17 by increasing the use of a 180 degree heading for those aircraft that would normally be assigned a 120 degree, 140 degree, or 155 degree heading.**

The FAA determined that this would raise safety and efficiency concerns and therefore would not be feasible.

**Request #4 – Move Runway 12R and 12L westbound departures to Runway 17 to take advantage of the 2.5 mile river departure procedure, provided the aircraft can be directed to follow the Minnesota River for no less than 5 nautical miles**

The FAA has determined that this request potentially has merit if limited to night-time operations.

The FAA has recommended that the MAC should further develop details of the procedures and collaborate with resident air carriers and commercial entities with a stake in the outcome.

Additionally, there were concerns expressed by other communities about the procedure changes, specifically Request #4. To measure the potential changes of these two procedure adjustment requests, MAC staff recommends that the NOC support further analysis of the proposals using noise modeling to be presented at its next meeting.

REQUESTED ACTION

DIRECT MAC STAFF TO EVALUATE REQUEST #1 AND REQUEST #4 USING THE AVIATION ENVIRONMENTAL DESIGN TOOL (AEDT) AND REPORT RESULTS AT THE REGULARLY SCHEDULED MAY NOC MEETING.



February 14, 2020

Rick King

Chairman, Metropolitan Airports Commission  
6040 28<sup>th</sup> Avenue South  
Minneapolis, MN 55450

Re: MSP Departure Procedure Adjustment Requests

Dear Mr. King,

Staff at the Minneapolis Tower (MSP Tower) of the Federal Aviation Administration (FAA) has had the opportunity to review the four requests for changes to how the MSP Tower directs aircraft departures from runway 17 at Minneapolis St. Paul Airport (MSP) submitted to the FAA by the MSP Noise Oversight Committee (NOC) through the Metropolitan Airports Commission (MAC). These requests were outlined are based on a longer list of recommendations developed by residents of the City of Eagan and are intended to reduce the amount of noise experienced by Eagan residents.

The FAA has conducted its initial review for feasibility and safety of the proposed changes in accordance with the flow chart presented to the NOC in the Fall of 2019 at one of its bi-monthly meetings. The review is a high-level review of the proposed changes and does not constitute a final commitment by the Agency. However, generally speaking, if the FAA notes that it has significant concerns, it is unlikely that there would be value in continuing to pursue that particular recommendation. Conversely, if the FAA notes that a particular change may have merit, an airport may wish to further pursue whether carriers would be willing to accept the proposed change, as well as assess whether the surrounding community would ultimately support the FAA adopting the change. Please note that changes to existing processes may simply shift the noise from one community to another. The FAA expects the MAC to work with the NOC and with the broader community to resolve these issues. The FAA's assessment of each of the four proposed changes is provided below.

**Adjustment Request #1**

- **Direct departures from Runway 17 with an initial departure fix of COULT or ZMBRO to Runway 12R or Runway 12L unless the departure would impede or be impeded by arrival traffic to those runways.**

The FAA has determined that this request potentially has merit if limited to departure fix COULT.

During times with low arrival demand, MSP Tower finds it feasible and safe to move departures with an initial fix of COULT to runway 12L. If MSP Tower were to move both the COULT and ZMBRO departure fix aircraft to Runway 12R or 12L, efficiency would be lost, causing delays for departures. During times

with high arrival demand, moving departures with the initial fix of COULT or ZMBRO to Runway 12R or 12L would impede arrival traffic to those runways causing delay to both the arrivals and the departures.

A more detailed study will need to be performed to determine the time periods when this procedure would be feasible, taking into consideration arrival and departure traffic demand for Runway 12L. As with all Runway Use System procedures, during periods of high demand, the need to maintain operational capacity does not allow Air Traffic Control flexibility in runway selection.

### **Adjustment Request #2**

- **Vary the use of Runway 17 departure headings to limit the frequency of overflights in neighborhoods.**

The FAA has determined that there is no value in further consideration of this request since it raises safety and efficiency concerns.

Runway 17 departure headings are currently varied to the maximum extent possible. As aircraft depart MSP, initial separation is established in a number of ways based on weather conditions. Aircraft are assigned divergent headings for safety and efficiency, and they are directed on headings in order to manage the need for increasing separation requirements as they depart the airport. Often these headings are based on the departure fix that the aircraft is flying to. For example, an aircraft bound for Atlanta may be given an initial heading of 120 degrees, while an aircraft bound for Chicago may be given an initial heading of 140 degrees which would allow the second aircraft to depart the Runway after the first aircraft is airborne and at least one nautical mile ahead of them. If these aircraft were given the same heading initially, Air Traffic Control would have to hold the second aircraft on the ground until establishing three miles in trail separation nose to tail. For this reason, Air Traffic Controllers already look for opportunities to vary the initial heading of departures. In order to maintain the safe and efficient flow of traffic, aircraft are also given headings that prevent the flow of departures to turn inside or cross the path of the next successive departure, which may occur if variance were mandated. As the destination is often the determining factor in the initial heading after departure, additional variance could lead to a loss of efficiency and possible gridlock on the airport surface as aircraft taxi to the departure runway if they are required to wait for extended periods of time prior to departure. This gridlock raises safety concerns that the FAA cannot accept, particularly since the suggested action has already been adopted to the maximum extent feasible.

### **Adjustment Request #3**

- **Better fan aircraft departing Runway 17 by increasing the use of a 180 degree heading for those aircraft that would normally be assigned a 120 degree, 140 degree, or 155 degree heading.**



The FAA has determined that there is no value in further consideration of this request since it raises safety and efficiency concerns.

As discussed above, Runway 17 departure headings are currently varied to the maximum extent possible. Limiting the use of any heading available to Air Traffic Controllers will reduce efficiency and airport capacity. If these aircraft were given the same heading initially, Air Traffic Control would have to hold the second aircraft on the ground until establishing three miles in trail separation nose to tail. In addition to the loss of efficiency, this would also lead to a possible increase in gridlock on the airport surface, raising the same safety concerns addressed above.

Air Traffic Controllers at MSP Tower currently assign an initial heading of 170 (Runway Heading) when feasible. A heading of 180 would cause the aircraft to fly west of the already established Runway Use System guidance prior to the 2.5 mile fix.

#### **Adjustment Request #4**

- **Move Runway 12R and 12L westbound departures to Runway 17 to take advantage of the 2.5 mile river departure procedure, provided the aircraft can be directed to follow the Minnesota River for no less than 5 nautical miles**

The FAA has determined that this request potentially has merit if limited to night-time operations.

During day-time operations, westbound aircraft (departure fixes of SCHEP and ORSKY) currently depart runway 17, unless aircraft have an operational necessity to use Runway 12R. During night-time operations (2230-0630), MSP Tower tentatively finds it feasible and safe to move westbound departures (departure fixes of SCHEP and ORSKY) to Runway 17, unless aircraft have an operational necessity to use Runway 12R. These aircraft would follow the published SCHEP or ORSKY Departure Procedure after passing the 2.5 mile departure fix that is depicted on the Air Traffic Controller's display.

It should be noted that MSP Air Traffic Control does not direct aircraft to follow landmarks or geographical features. Instead, MSP Air Traffic Controllers direct aircraft via headings to be flown until they intercept their flight planned routes via established and published procedures that are flight checked and certified for safe use.

Should the MAC choose to further develop details for the proposal, the FAA will conduct a more comprehensive evaluation after that development is completed. To assure the FAA's limited resources are focused on projects with a high likelihood of success, the Agency recommends the MAC collaborate with its resident air carriers and other commercial entities with a stake in the outcome. In addition, as noted above, the FAA anticipates that the MAC will work with the NOC to make sure there will be broad community acceptance of the proposed changes since some of the changes may simply move noise from one community to another.



If the MAC decides to move forward, the MAC and the FAA will need to determine and agree on who would bear the cost of development and implementation. Additionally, the new processes will be subject to environmental review with appropriate community outreach prior to implementation. Parallel to this effort, any new processes would be subject to a Safety Risk Management assessment. Standard Operating Procedures would then be developed, incorporating any safety mitigations, and Air Traffic Control Specialists would be briefed/trained prior to any implementation.

Sincerely,



Rebecca B. MacPherson  
Regional Administrator

cc: Brian Ryks, MAC Executive Director  
Jeff Hart, NOC Airport User Co-Chair  
Dianne Miller, NOC Community Co-Chair  
Eagan Mayor Mike Maguire  
U.S. Congresswoman Angie Craig  
U.S. Senator Amy Klobuchar  
U.S. Senator Tina Smith

# MEMORANDUM

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Brad Juffer, Manager, Community Relations

**SUBJECT:** **MSP COMPLAINT DATA ASSESSMENT**

**DATE:** March 4, 2020

The 2020 NOC Work Plan includes generation of an MSP Complaint Data Assessment. The attached assessment examines complaint data trends from 2017 through 2019 and includes the following sections:

- 2017 – 2019 Annual Complaint and Households
  - 2019 Top 10 Households by Complaints
  - 2019 New Households filing Complaints
  - 2019 Ground Noise and Runup Complaints
- 2019 Complaints by Complaint Reason
- 2017 – 2019 Complaint filed by City
- 2019 – 2019 Households by City
- 2019 Households by DNL Contour
- 2019 Households by Home Purchase Date
- 2017 – 2019 Complaint by Time of Day
- 2019 Complaints by Aircraft Category
- 2019 Complaints by Aircraft Type
- 2019 Top 10 Flights that Generated Complaints
- 2017 – 2019 Complaints by Airport Flow
- 2019 Complaints by Temperature and Weather Conditions

Staff will present information from this assessment at the March 18, 2020 NOC meeting.



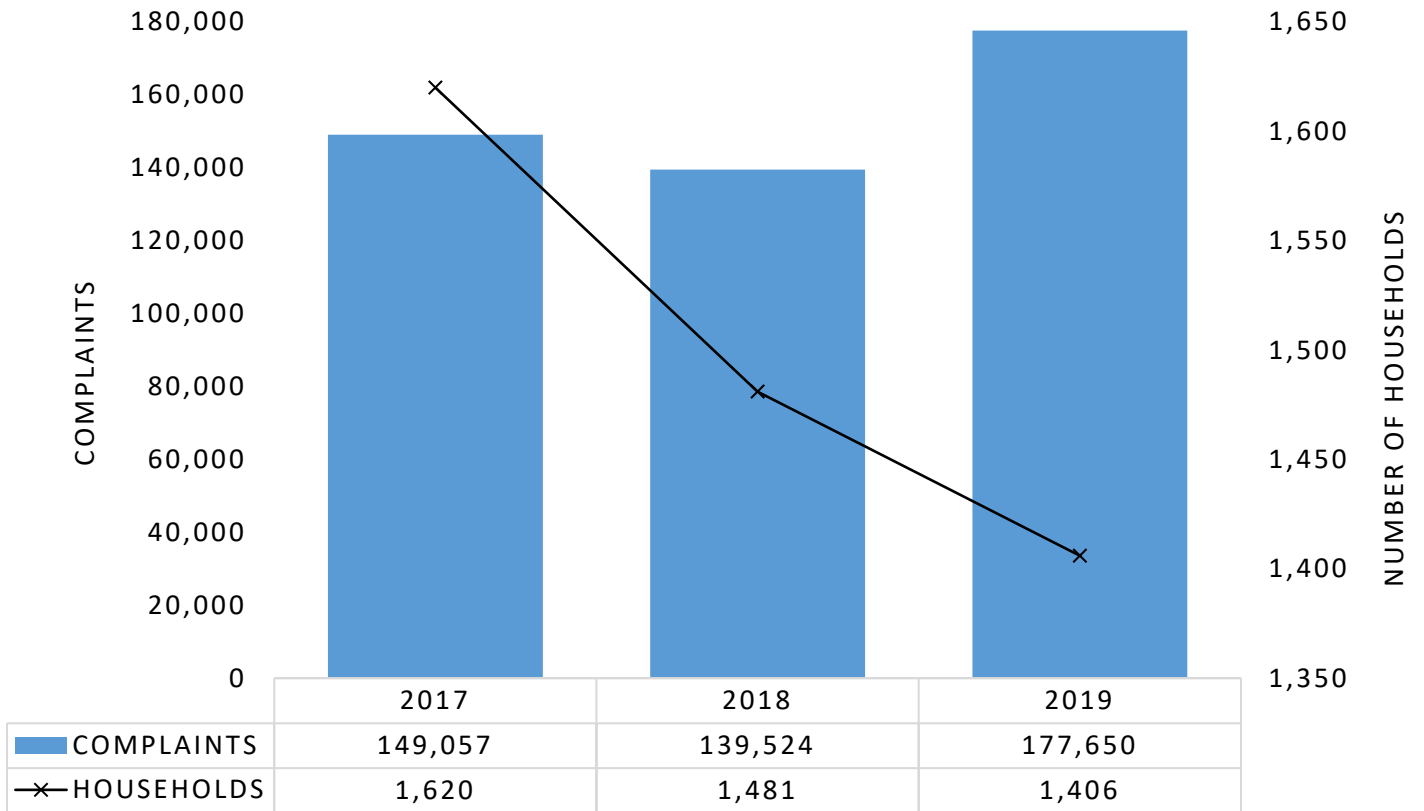
# MSP COMPLAINT DATA ASESMENT

## MARCH 2020

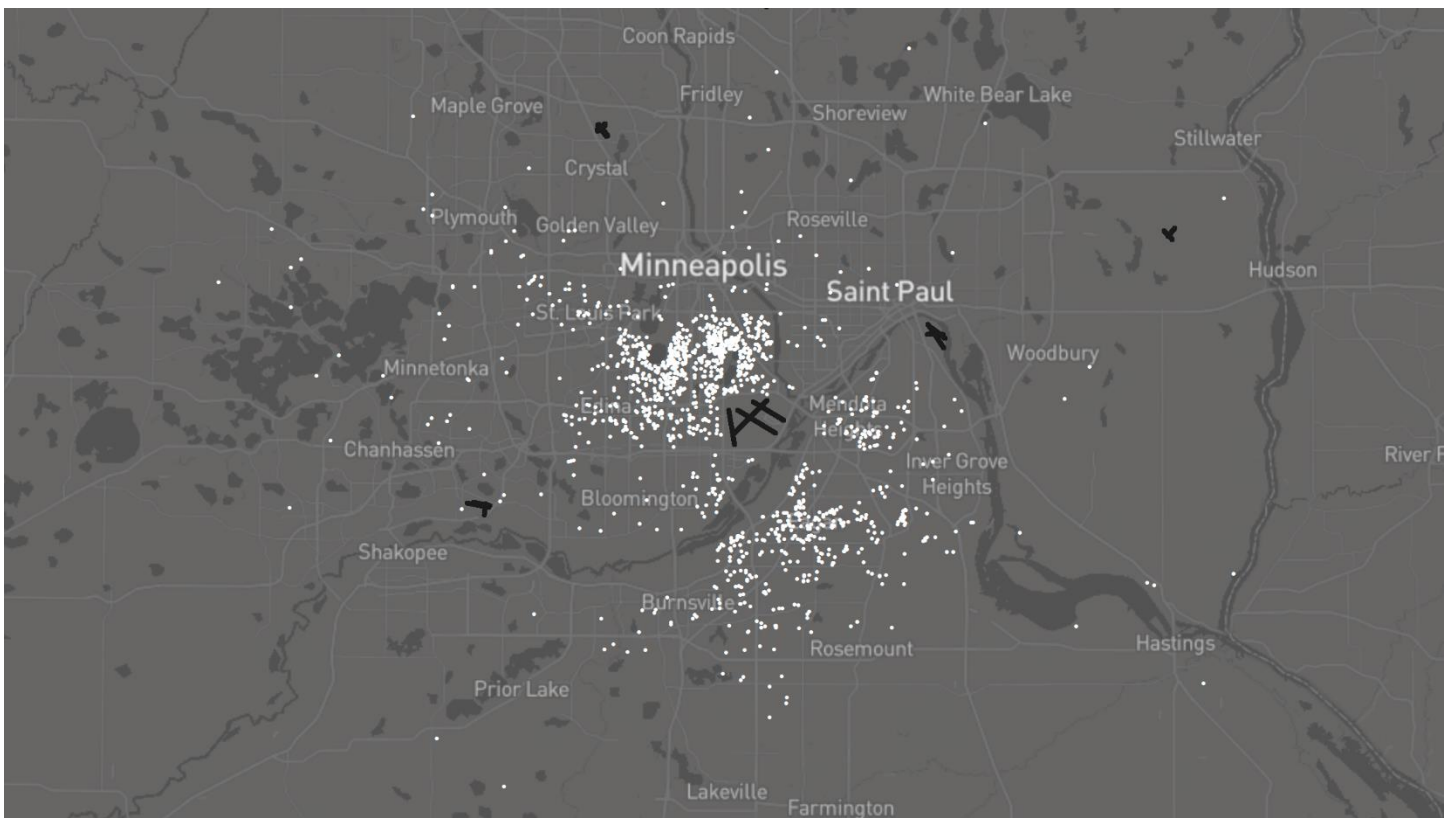
COMMUNITY RELATIONS OFFICE

**METROPOLITAN AIRPORTS COMMISSION**  
6040 28TH AVENUE SOUTH, MINNEAPOLIS, MN 55450  
[WWW.MACNOISE.COM](http://WWW.MACNOISE.COM)

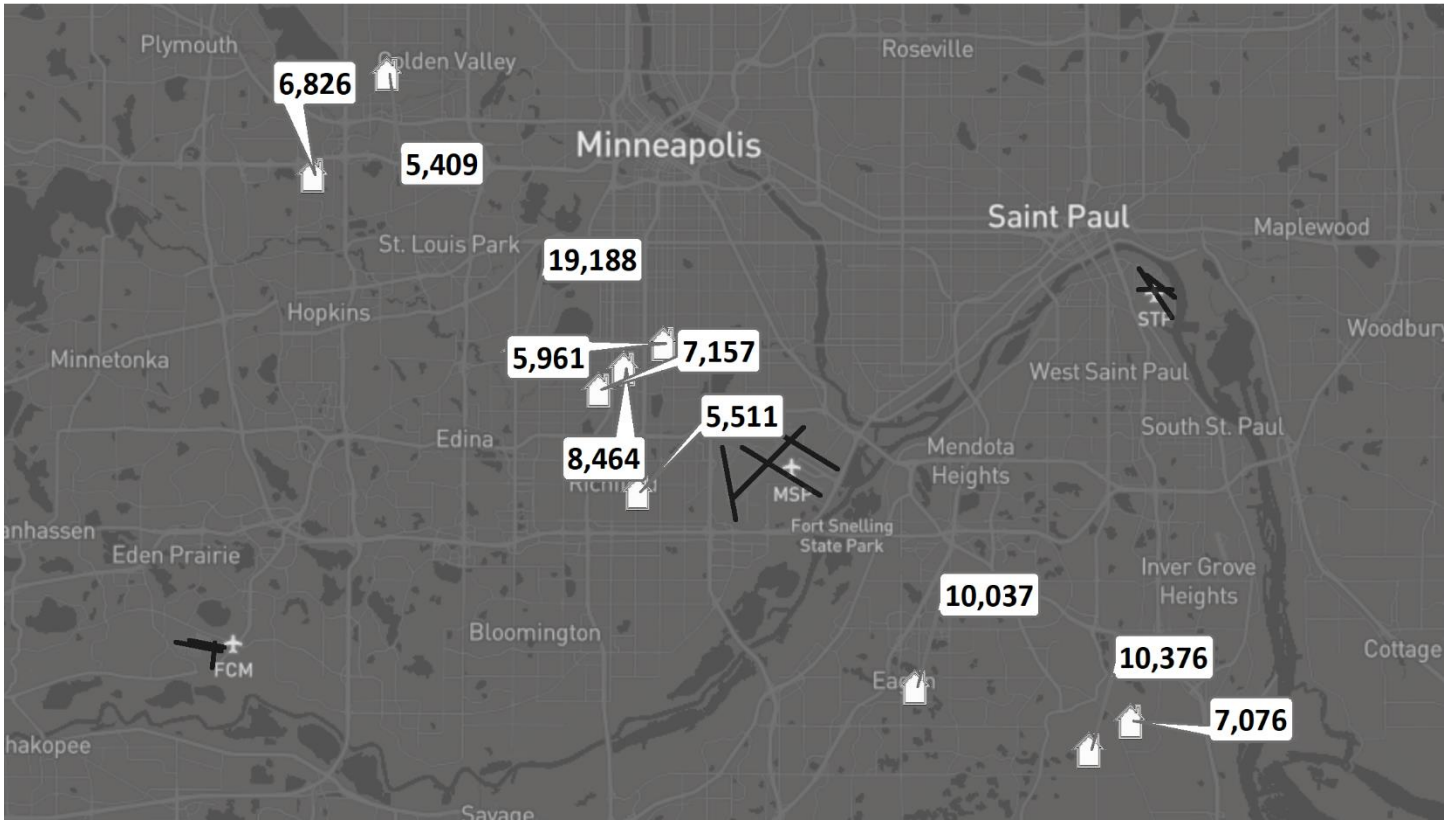
## 2017 – 2019 ANNUAL COMPLAINTS AND HOUSEHOLDS



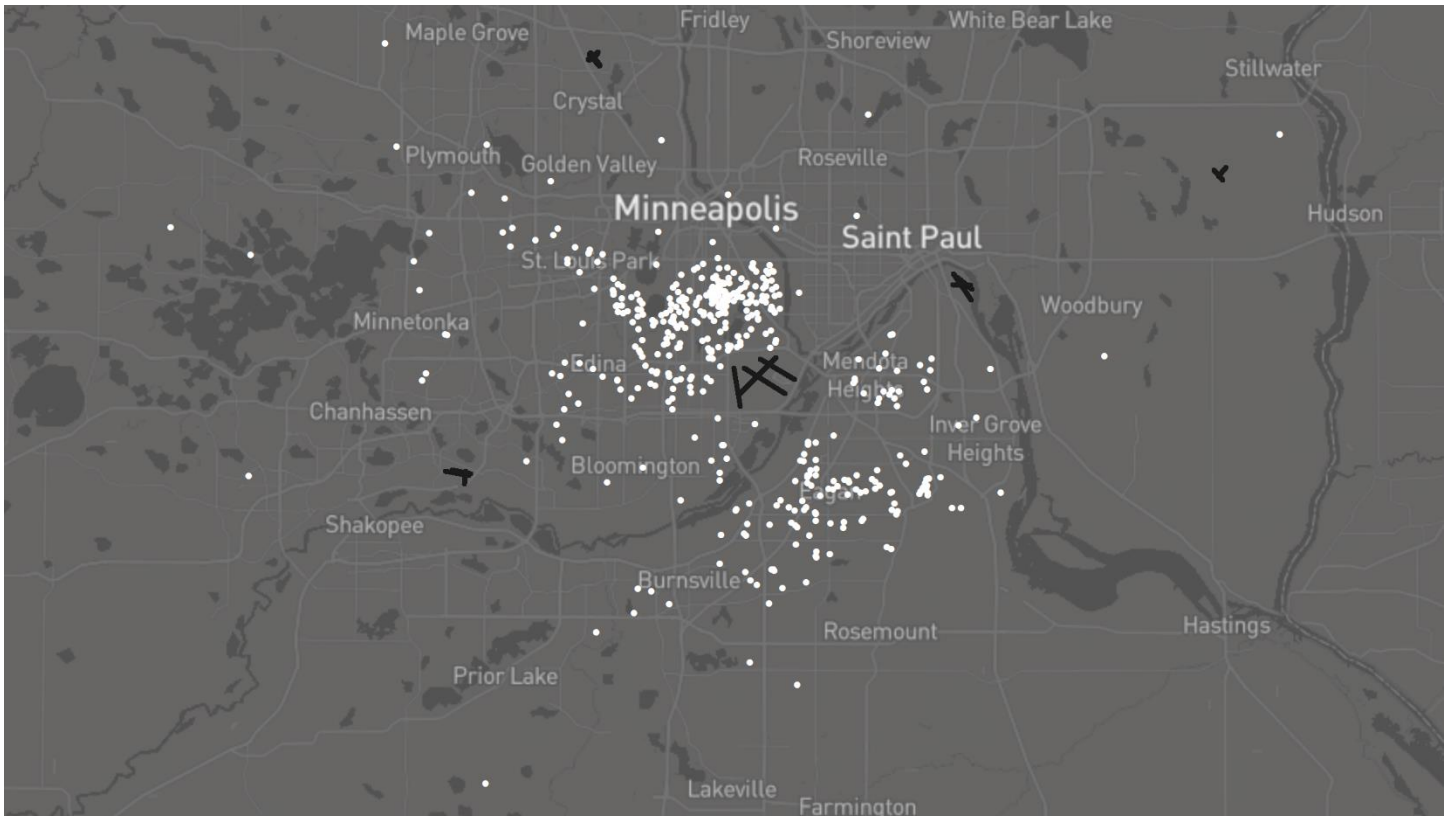
## 2019 HOUSEHOLDS FILING COMPLAINTS



## 2019 TOP 10 HOUSEHOLDS FILING COMPLAINTS

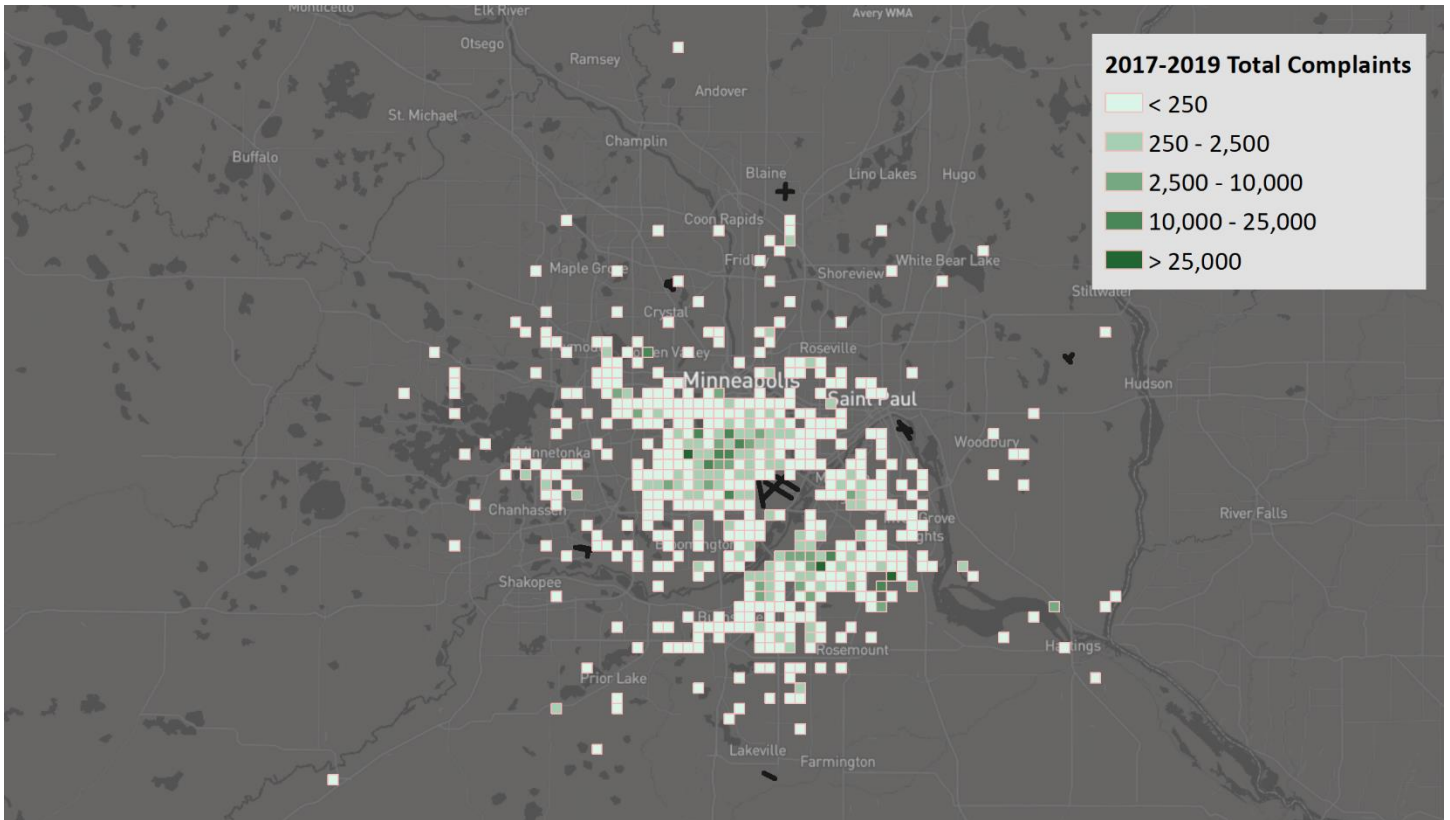


## 2019 NEW HOUSEHOLDS FILING COMPLAINTS

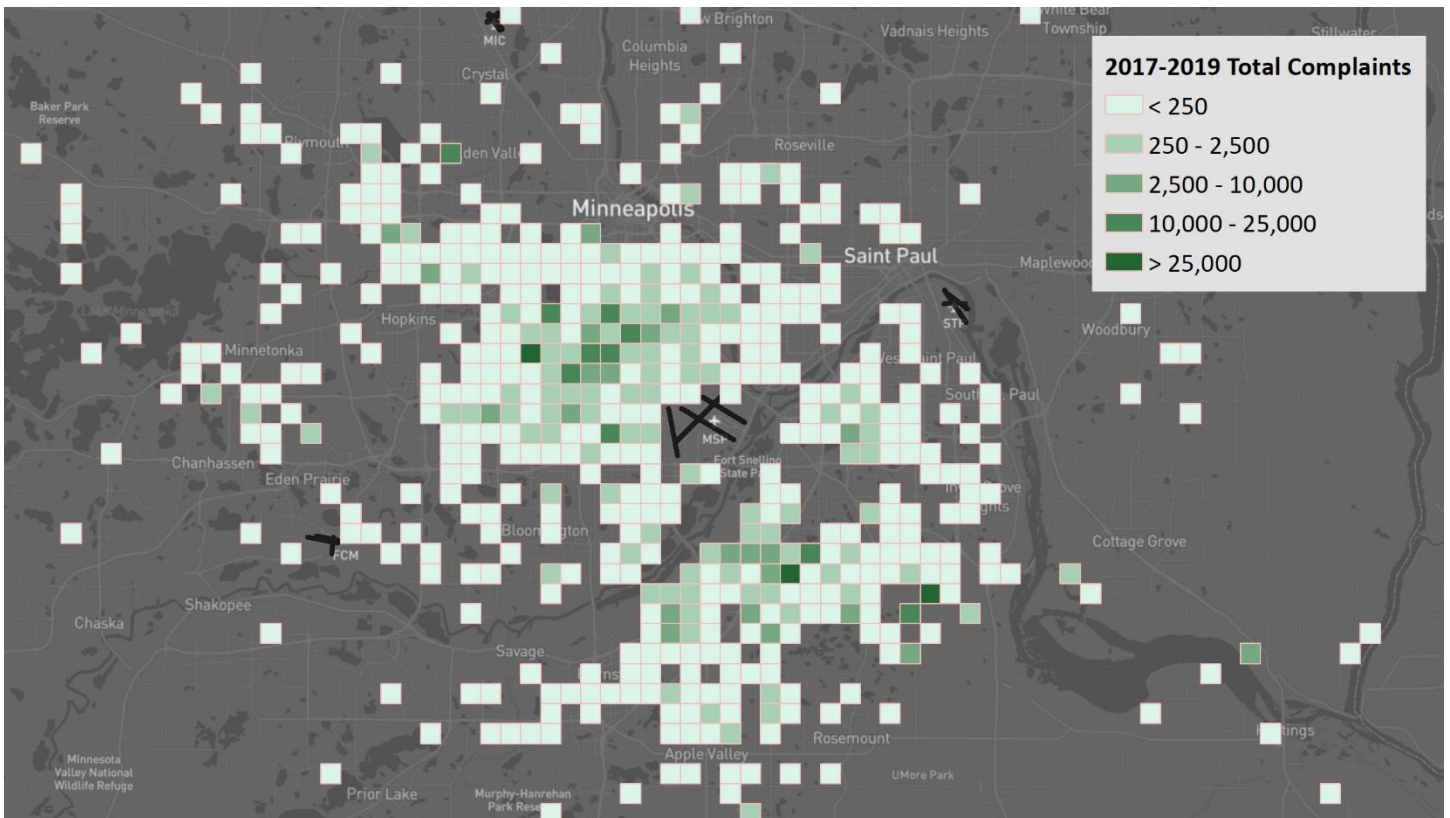




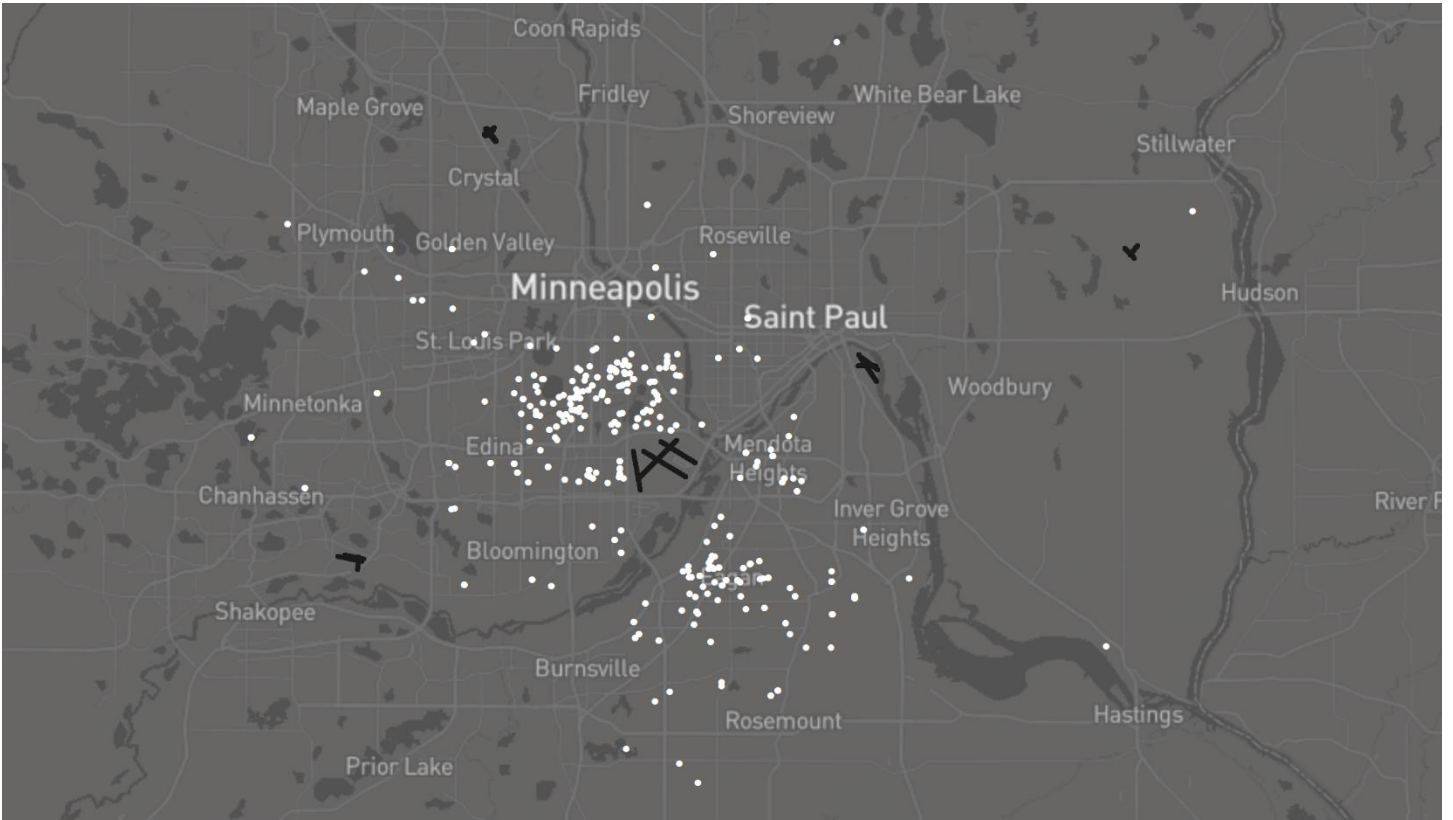
## 2017 – 2019 TOTAL COMPLAINTS



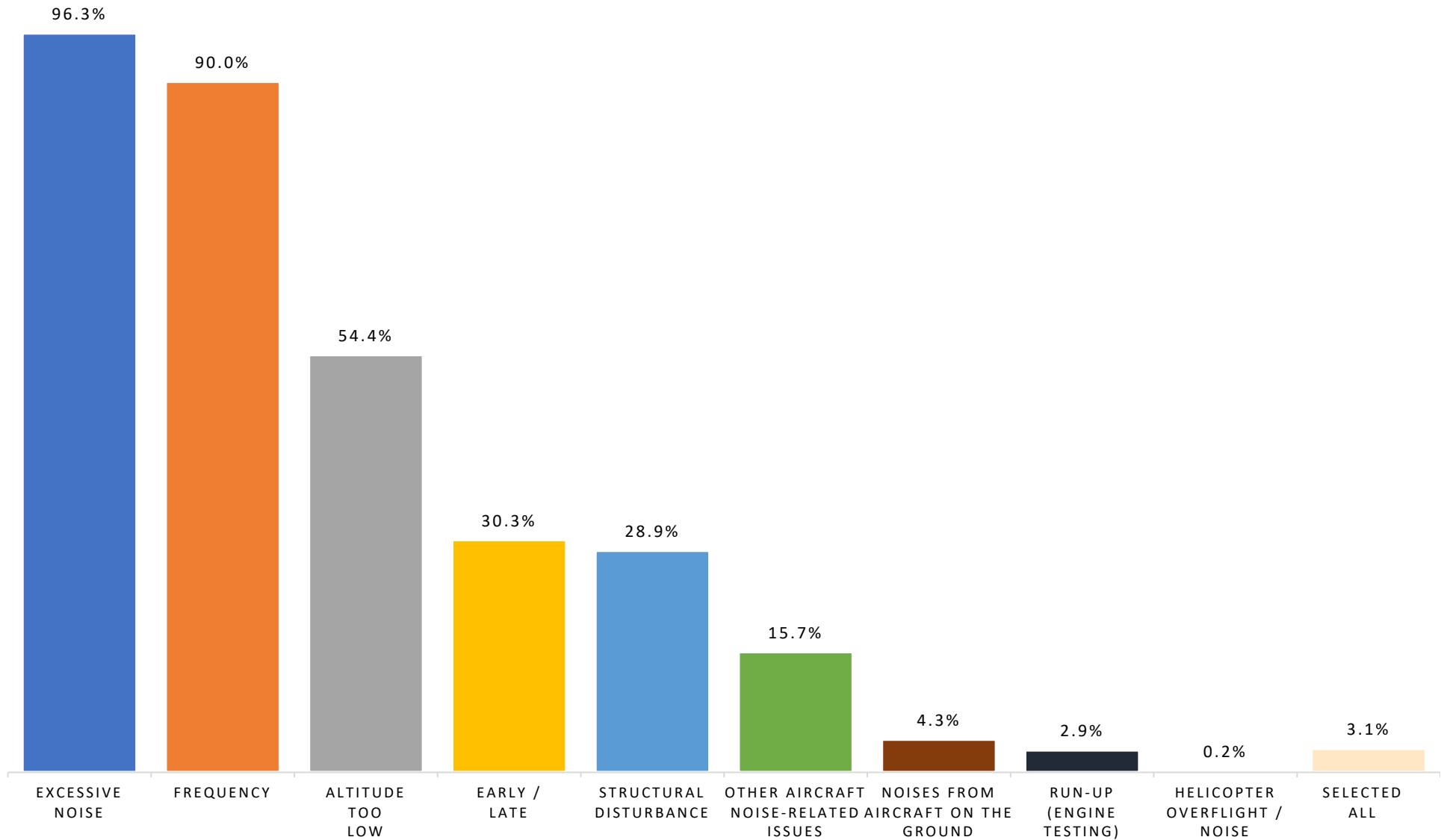
## 2017 – 2019 TOTAL COMPLAINTS



## 2019 GROUND NOISE & RUN UP COMPLAINTS



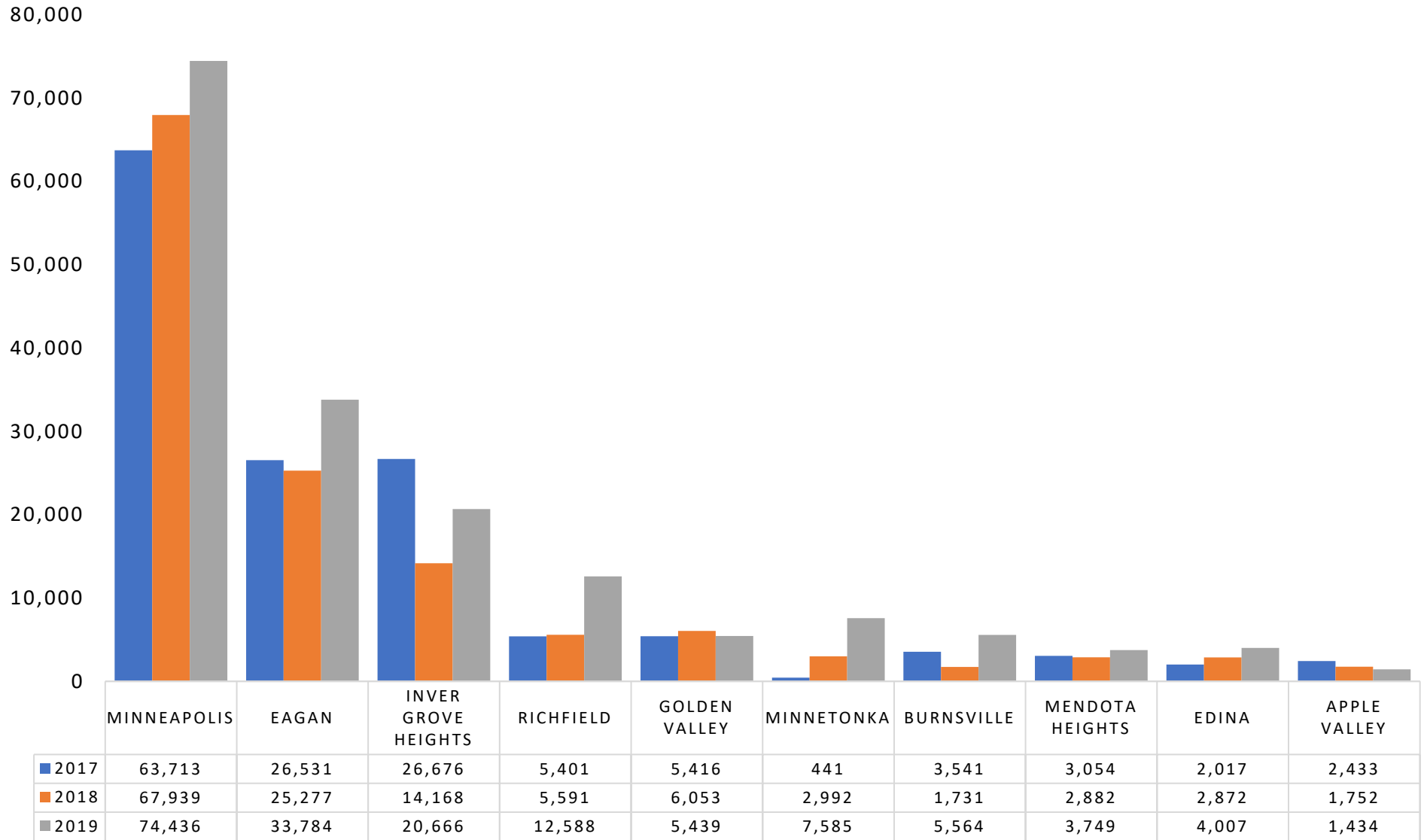
## 2019 COMPLAINTS FILED BY COMPLAINT REASON



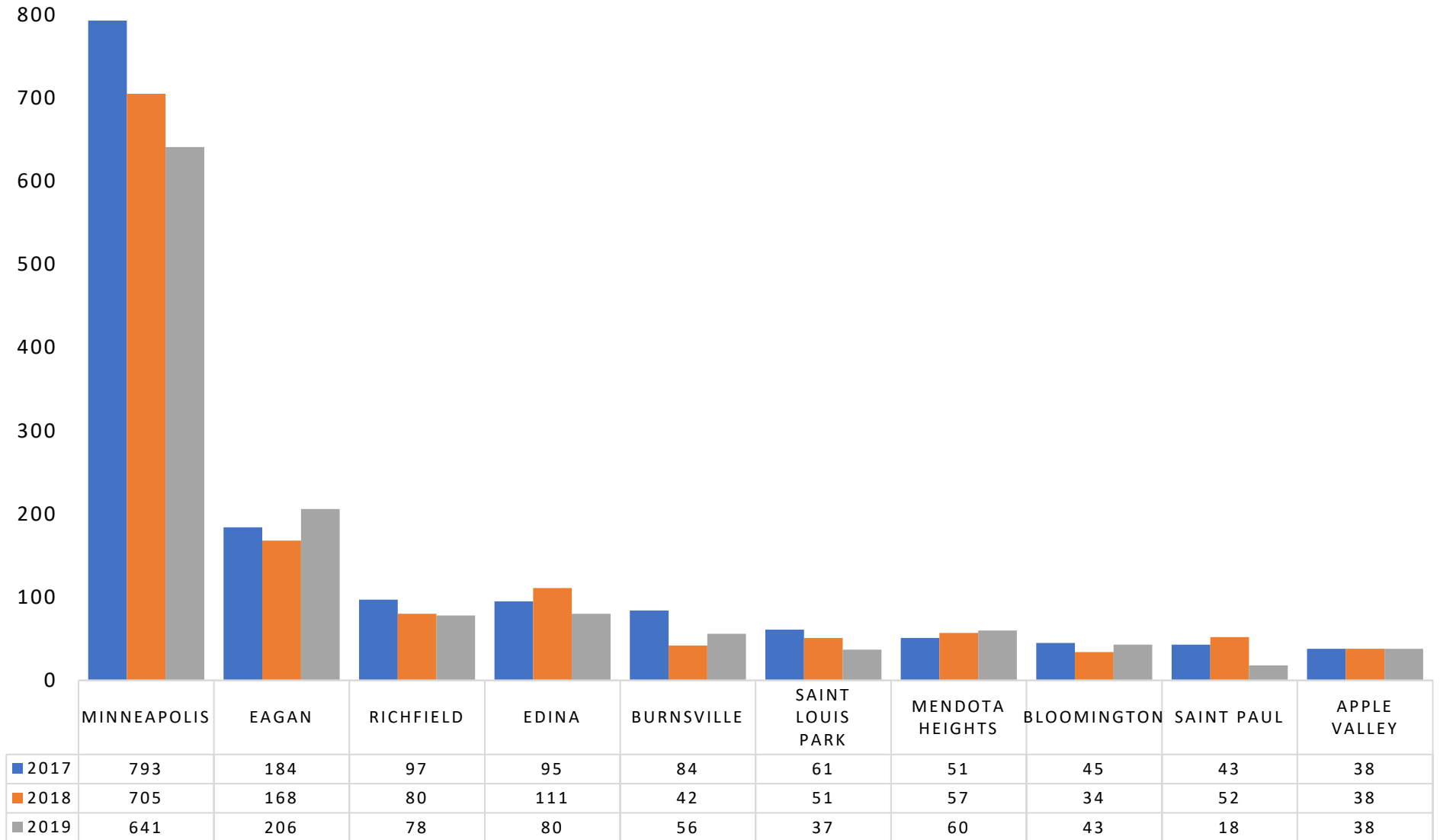
NOTE: BECAUSE MORE THAN ONE OPTION CAN BE SELECTED, THESE DO NOT ADD UP TO 100%. "SELECTED ALL" INDICATES EVERY COMPLAINT TYPE SELECTED.



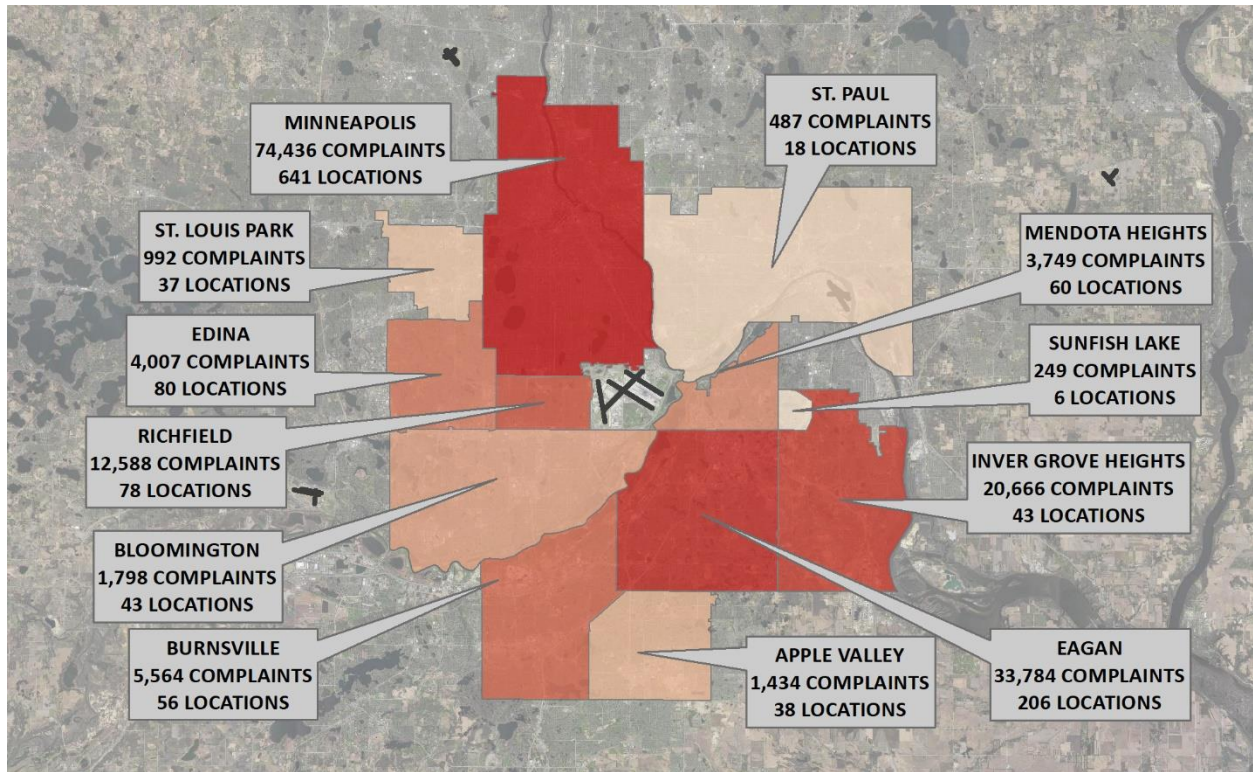
## 2017 – 2019 ANNUAL COMPLAINTS FILED BY TOP 10 CITIES



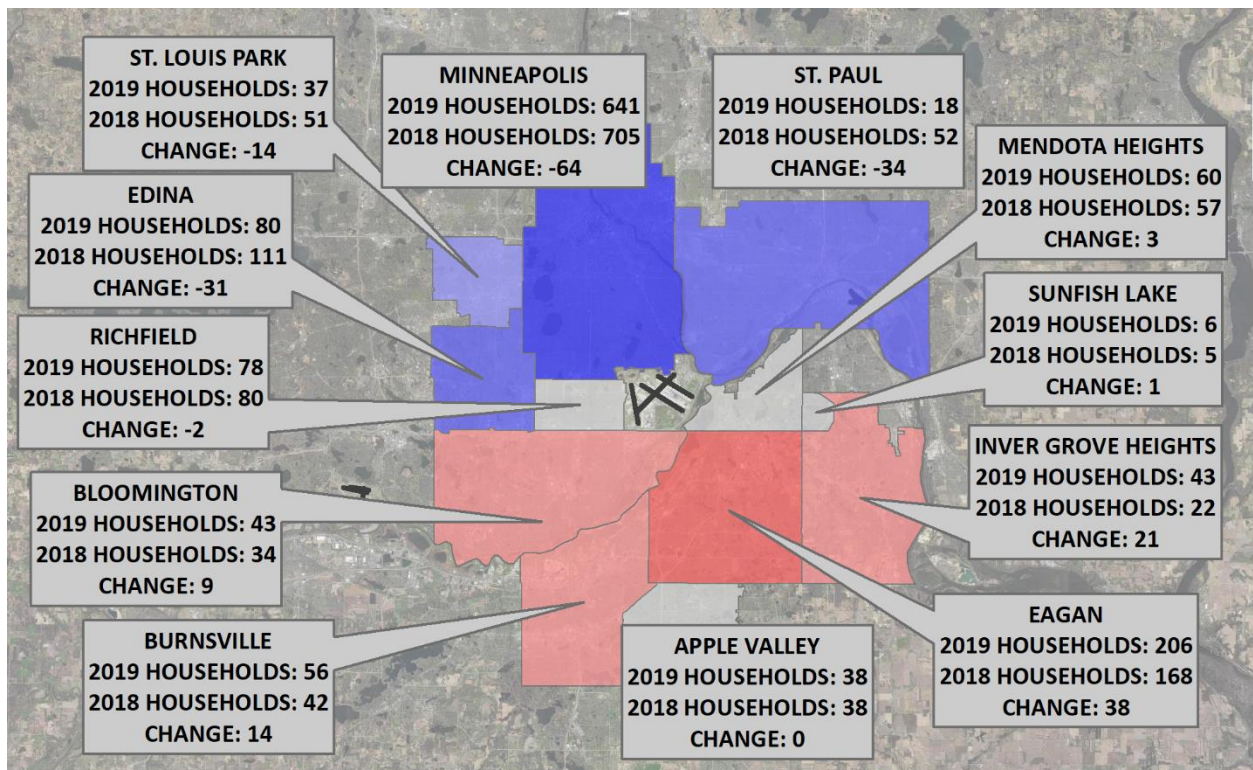
## 2017 – 2019 ANNUAL HOUSEHOLDS FILING COMPLAINTS BY TOP 10 CITIES



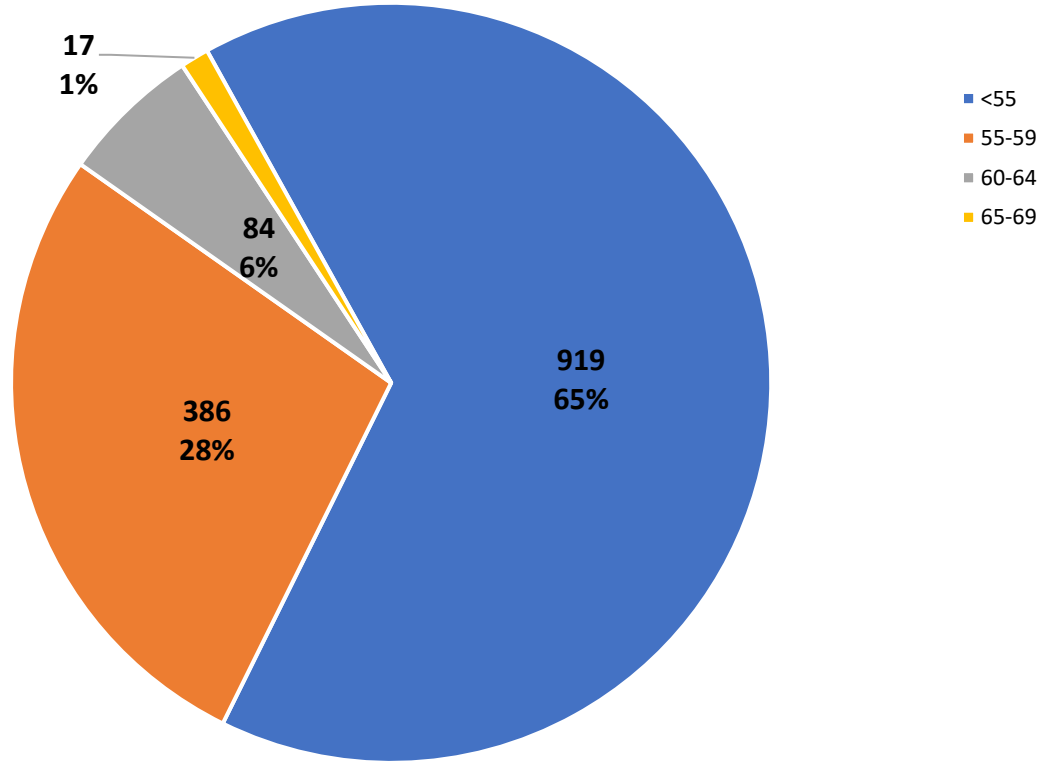
## 2019 COMPLAINTS FILED BY CITY



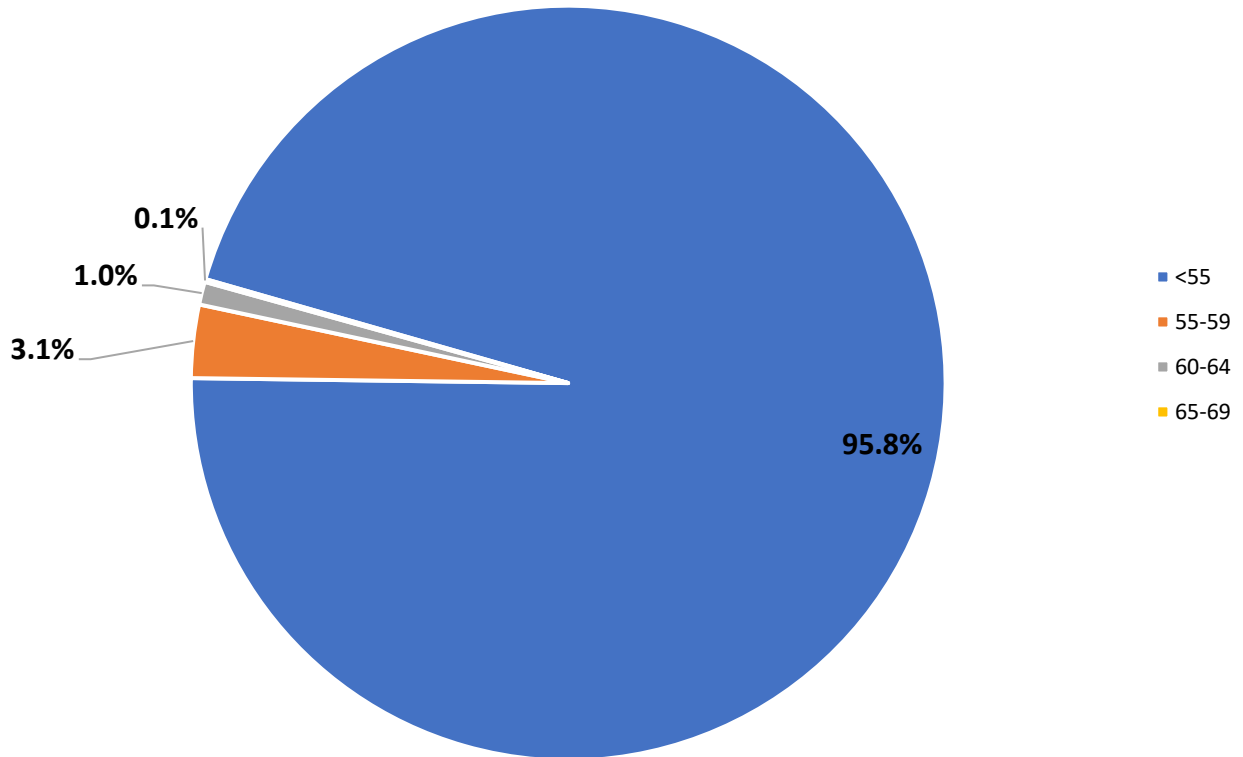
## 2018 TO 2019 COMPARISON - HOUSEHOLDS FILING COMPLAINTS BY CITY



## 2019 HOUSEHOLDS FILING COMPLAINTS BY DNL CONTOUR

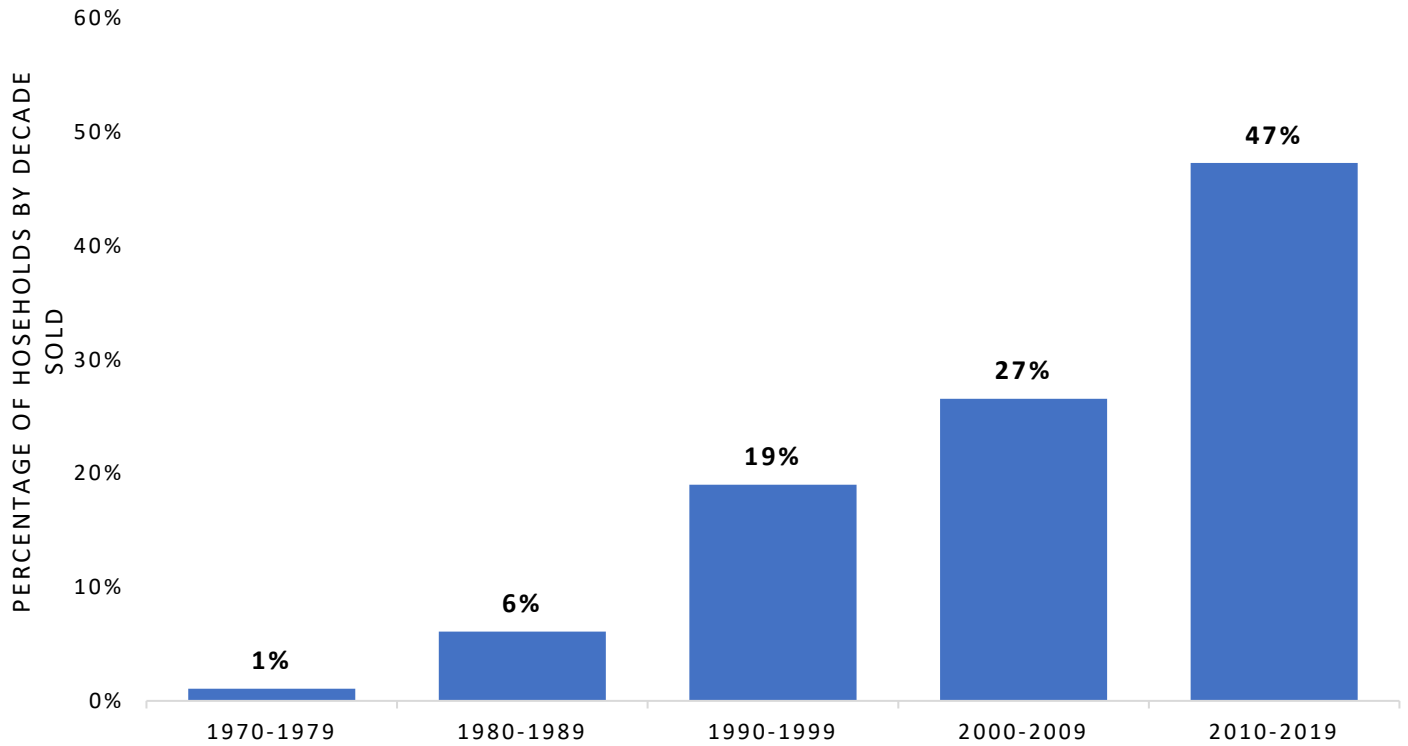


## NUMBER OF RESIDENTIAL PARCELS\* BY DNL CONTOUR



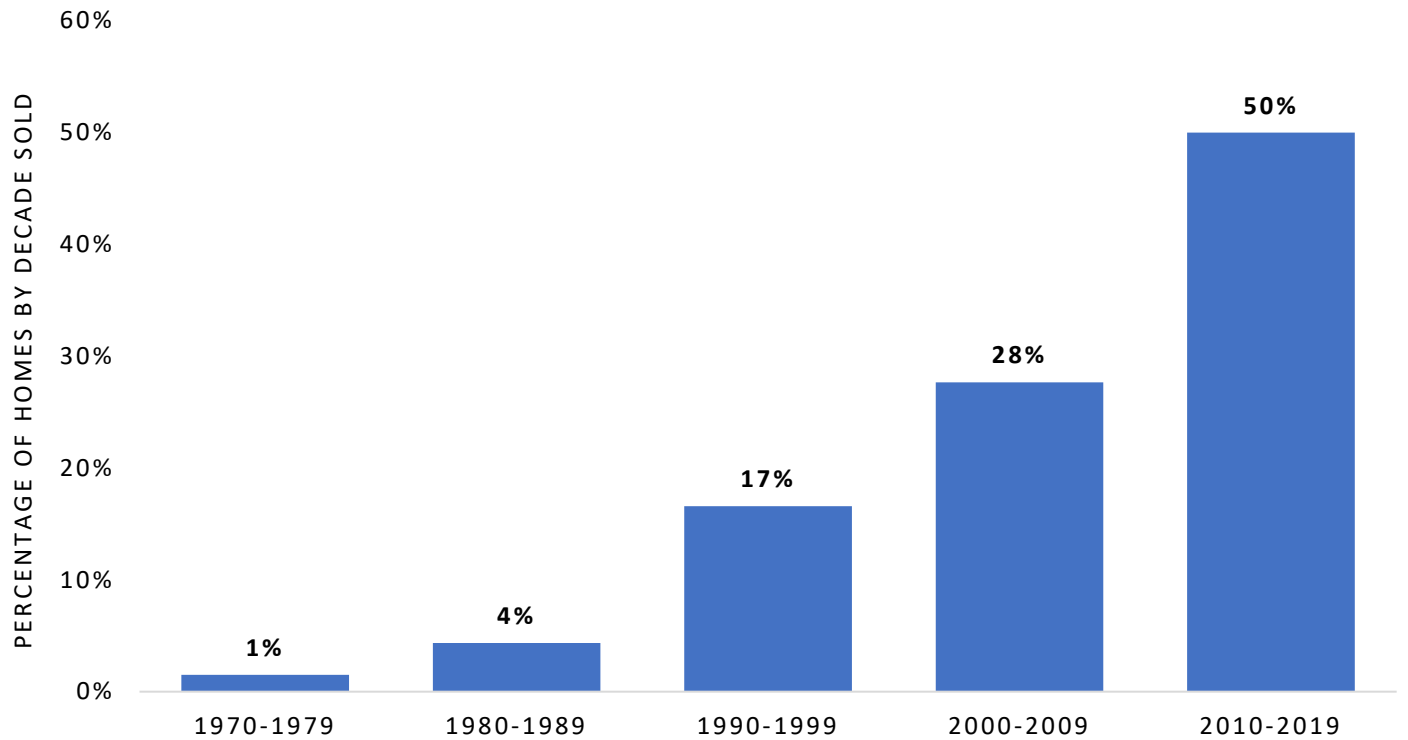
*\*Parcels with primary use labeled as residential within 23.65 miles of MSP were included*

## 2019 HOUSEHOLDS FILING COMPLAINTS BY HOME PURCHASE DATE



*Note: Only includes single-family owner-occupied households based on county parcel data (2020).*

## NUMBER OF HOUSEHOLDS BY HOME PURCHASE DATE

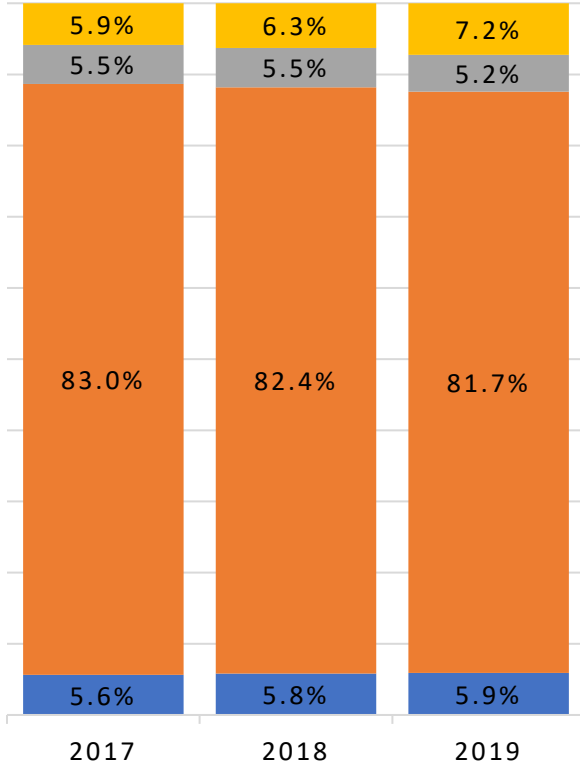


*Note: single-family owner-occupied households within 23.65 miles of MSP with sale date information available only based on county parcel data (2020).*

## 2017 – 2019 COMPLAINTS AND OPERATIONS BY TIME

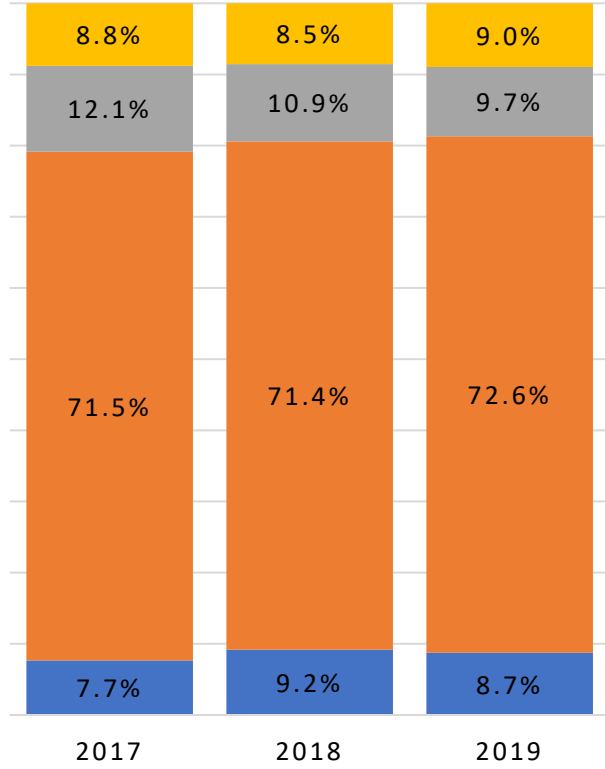
### OPERATIONS BY TIME PERIOD

■ MORNING ■ DAY ■ EVENING ■ NIGHT



### COMPLAINTS BY TIME PERIOD

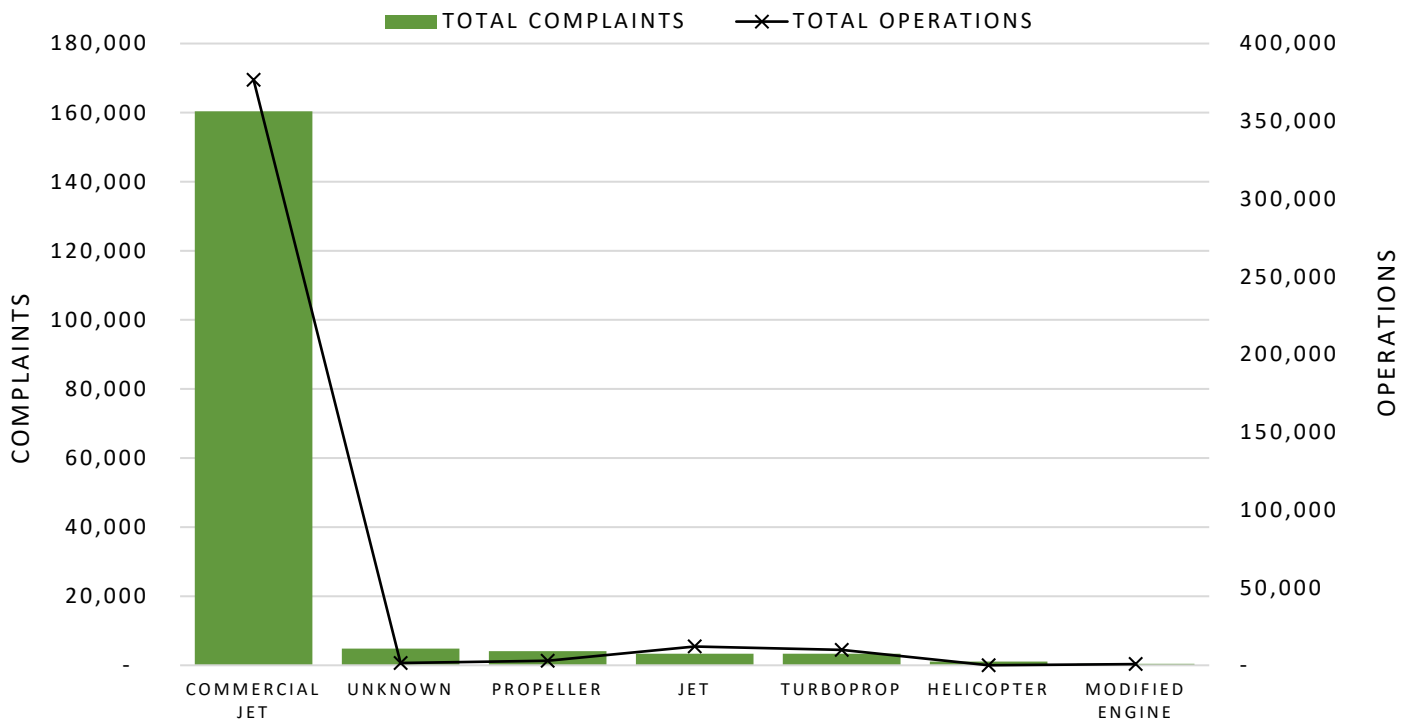
■ MORNING ■ DAY ■ EVENING ■ NIGHT



*Note:*

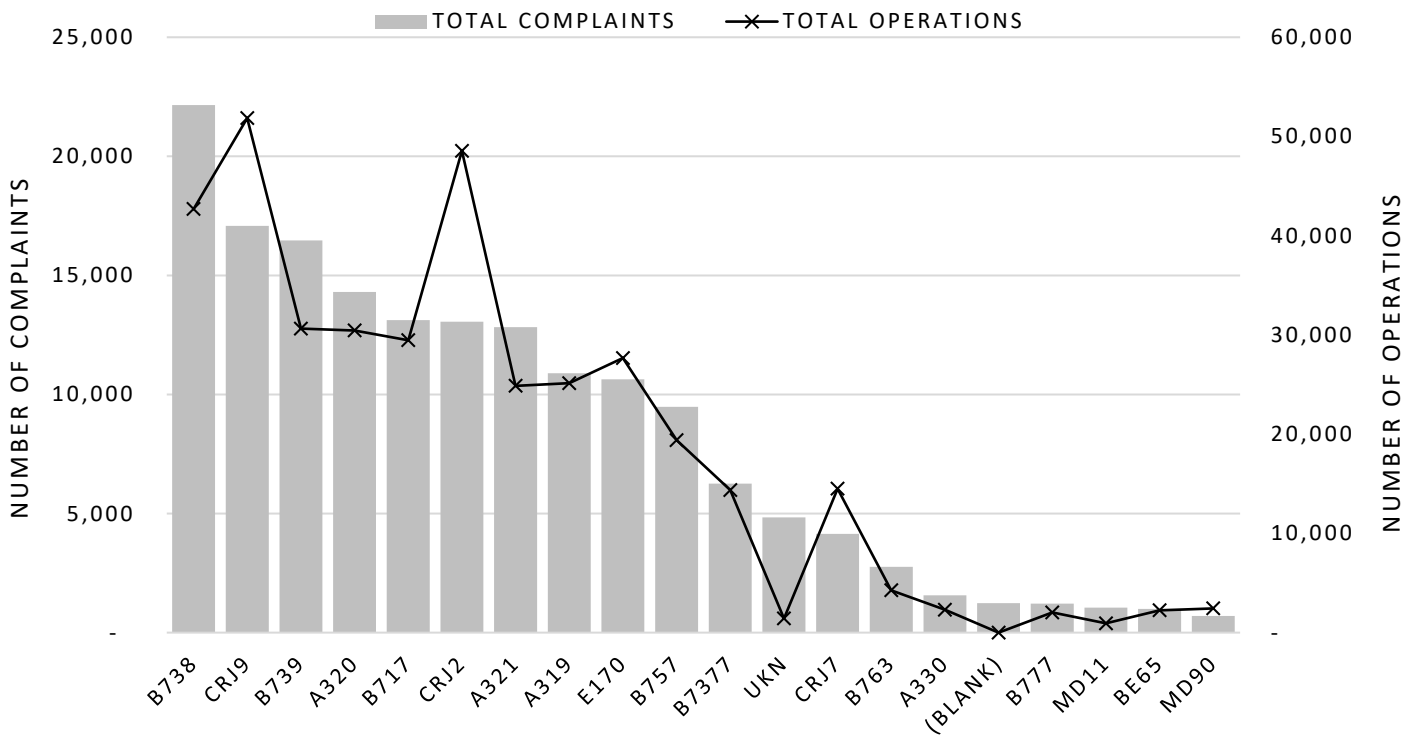
*Morning:* 6:00 AM – 7:30 AM  
*Day:* 7:30 AM – 9:00 PM  
*Evening:* 9:00 PM – 10:30 PM  
*Night:* 10:30 PM – 6:00 AM

## 2019 COMPLAINTS BY AIRCRAFT CATEGORY



Operation Type	Total Complaints	Total Operations	Ratio
<b>Commercial Jet</b>	160,378	376,603	0.43
<b>Unknown</b>	4,838	1,430	3.38
<b>Propeller</b>	4,078	2,876	1.42
<b>Jet</b>	3,368	12,093	0.28
<b>Turboprop</b>	3,342	9,888	0.34
<b>Helicopter</b>	1,076	21	51.24
<b>Modified Engine</b>	414	754	0.55

## 2019 COMPLAINTS BY AIRCRAFT TYPE

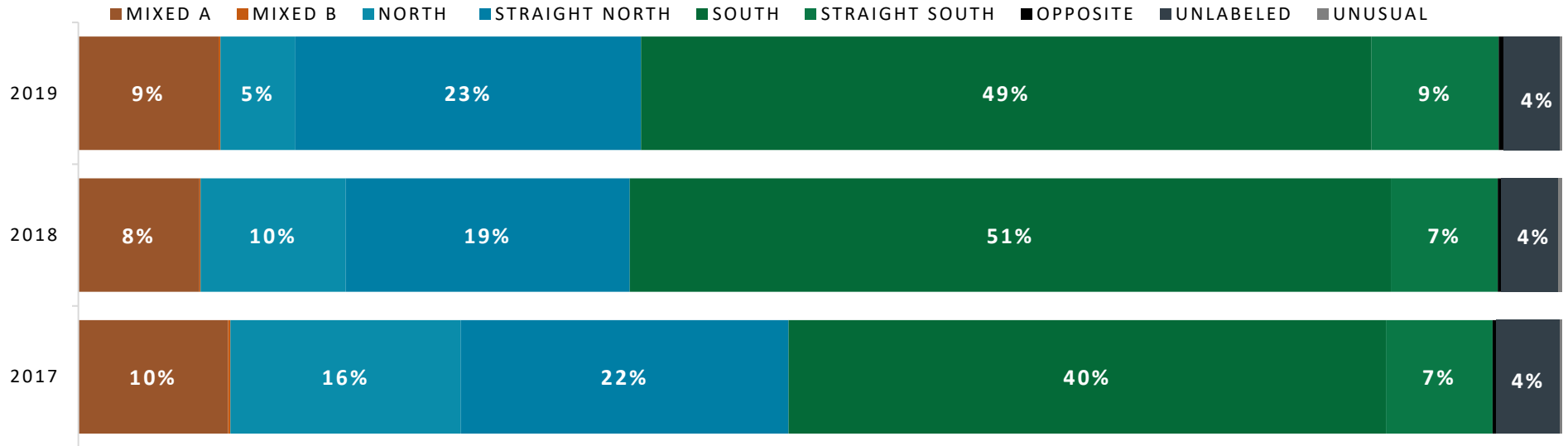


## 2019 TOP 10 FLIGHTS THAT GENERATED COMPLAINTS

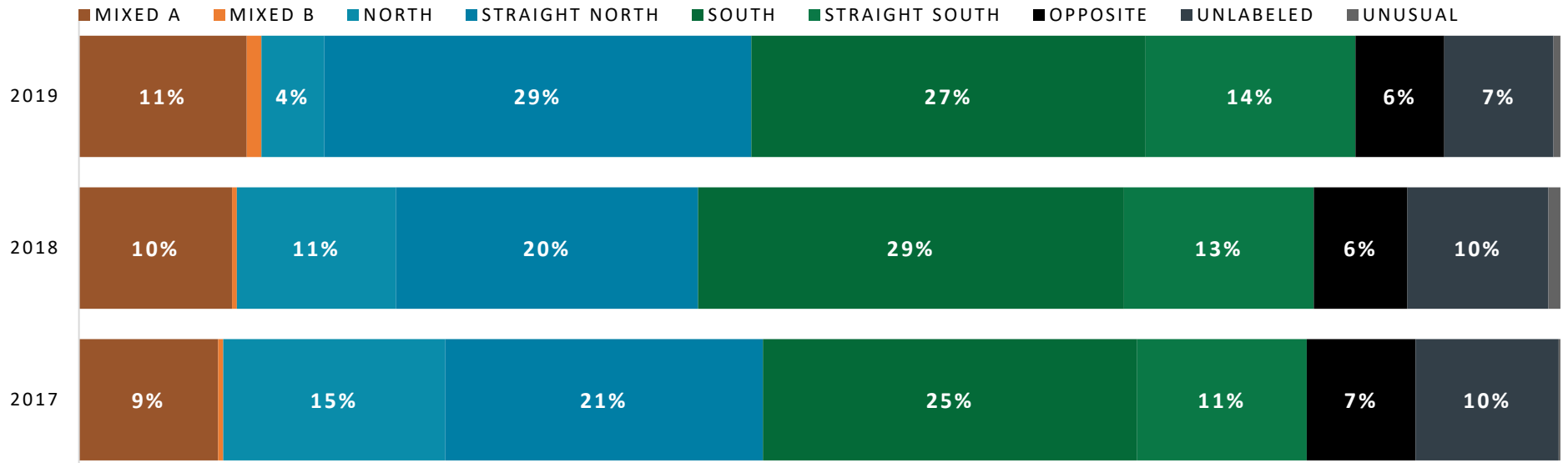
Operation Number	Aircraft Type	Airport	Flight ID	Date and Time	Number of Complaints
24191800	B739	MSP	DAL371	1/12/2019 7:28	24
25030719	A109	--	N90NM	8/10/2019 3:32	24
24597204	UKN	FCM	--	5/7/2019 16:32	22
24429478	BE65	MSP	BMJ72	3/28/2019 7:18	21
24948135	UKN	FCM	--	7/24/2019 7:03	21
24191771	B737	MSP	SWA6936	1/12/2019 7:47	21
25111517	MD11	MSP	FDX915	9/1/2019 3:58	21
25166616	CRJ9	MSP	SKW4045	9/20/2019 6:53	20
24867877	UKN	MIC	N2240G	7/8/2019 19:40	20
24592042	B738	MSP	DAL2340	5/6/2019 20:51	19



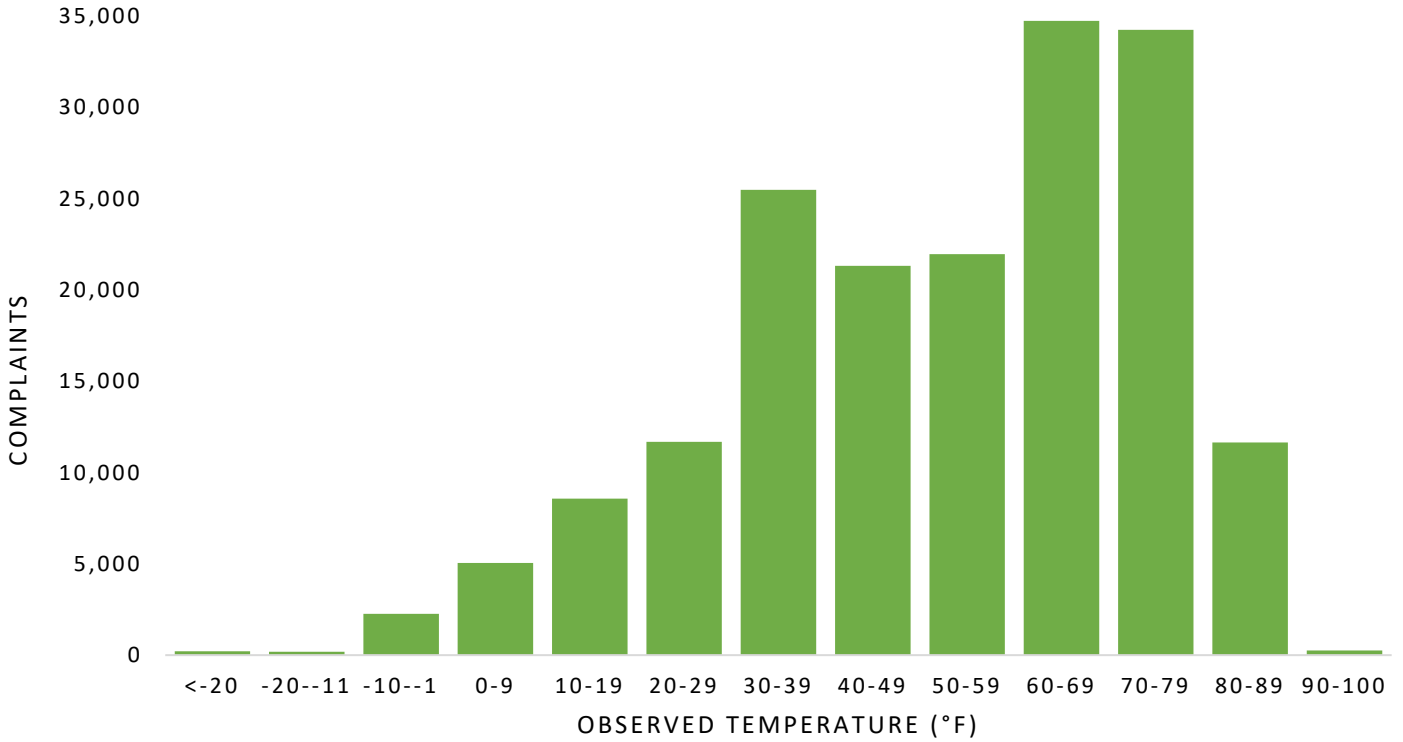
## 2017 – 2019 COMPLAINTS BY FLOW



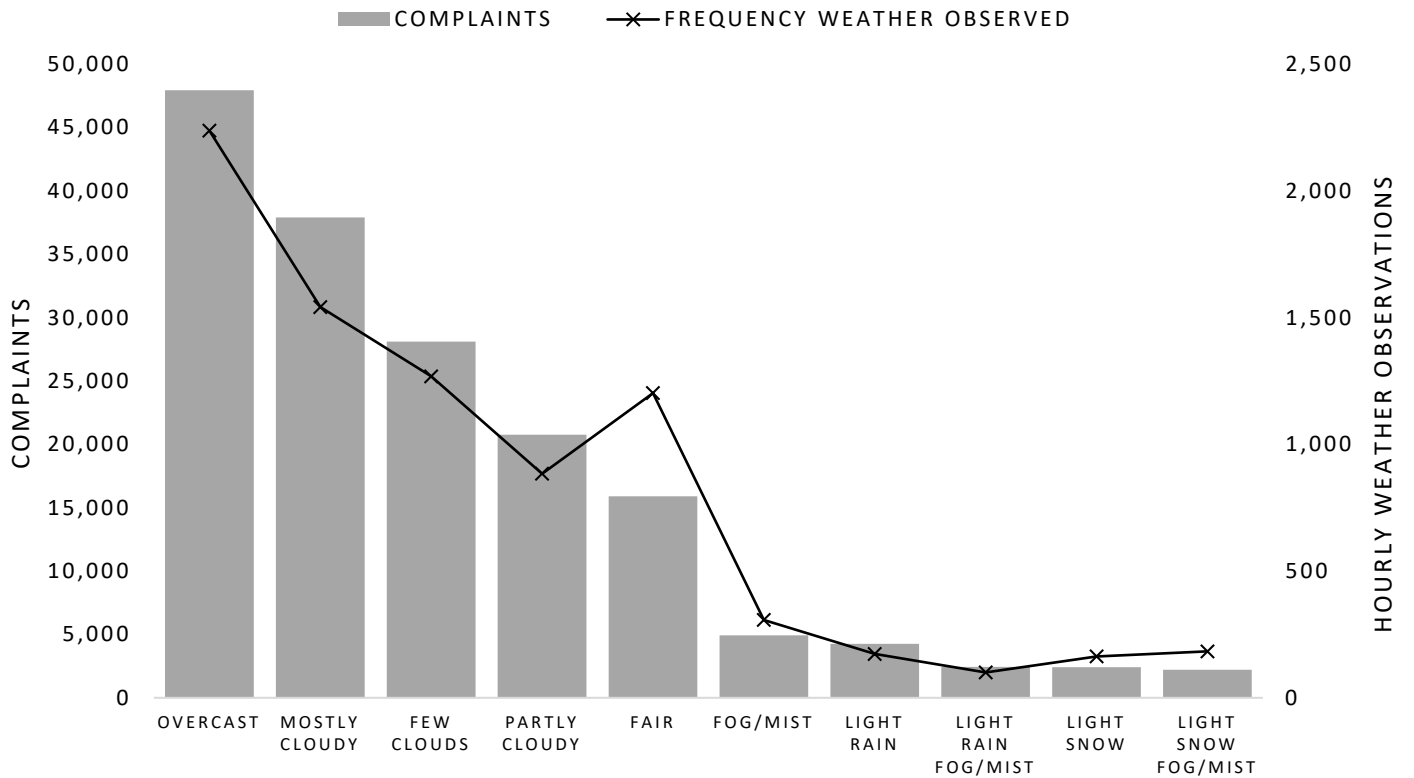
## 2017 – 2019 TOTAL FLOW



## 2019 COMPLAINTS BY TEMPERATURE



## 2019 COMPLAINTS BY WEATHER



# MEMORANDUM

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Dana Nelson, Director, Stakeholder Engagement

**SUBJECT:** **MSP 2040 LONG TERM PLAN STAKEHOLDER ENGAGEMENT UPDATE**

**DATE:** March 4, 2020

The MAC is responsible for long-term planning for each of its airports. The MSP Airport Long-Term Plan (“the Plan”) is a forward-looking planning tool that studies facility and infrastructure needs based on projected 20-year passenger demand and aircraft operations.

A robust community and stakeholder engagement program – including creation of a Stakeholder Advisory Panel – will accompany various phases of the planning process, providing ample opportunities for public information, input and discussion.

An overview of engagement program updates and upcoming Stakeholder Advisory Panel activities will be shared at the March 18, 2020 NOC meeting.

# **MEMORANDUM**

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**TO:** MSP Noise Oversight Committee (NOC)

**FROM:** Brad Juffer, Manager, Community Relations

**SUBJECT:** **MINNETONKA MOBILE NOISE MONITORING STUDY PLAN**

**DATE:** March 4, 2020

The 2020 NOC Work Plan includes an item to conduct a mobile noise monitoring study in the City of Minnetonka. The original request was received by the Committee via a mobile noise monitoring request from the City of Minnetonka through At-Large Community Representative, Mary Brindle. It was approved by the NOC upon the approval of the 2020 Work Plan on November 20, 2019.

The purpose of the study is to collect measurements in the northeastern portion of the City of Minnetonka of aircraft-related sounds associated with operations from the Minneapolis-St. Paul International Airport, in accordance with established [Mobile Sound Monitoring](#) procedures.

MAC staff intends to conduct mobile monitoring during May 2020 and has developed the data collection plan in partnership with staff at the City of Minnetonka.

The attached document outlines the plan for the Minnetonka Mobile Noise Monitoring Study. Staff will provide an update to the NOC at its March 18, 2020 meeting.

# Minnetonka Mobile Monitoring Study 2020 – Outline

## Purpose

Collect measurement in the northeastern portion of the City of Minnetonka of aircraft related sounds associated with operations from the Minneapolis-St. Paul International Airport, in accordance with established Mobile Sound Monitoring Guidelines.

## Suggested timing and duration of the study

Targeted start is May 2020 with data collection for one week. The data will be shared with City of Minnetonka staff and residents and presented in a report at the July 15 NOC meeting. Start date and results could be impacted by the monitoring site, community or environmental factors at that location, and weather.

## Number of mobile noise monitors and location criteria

This study will use one monitoring location. A back-up location may be identified for unanticipated challenges during the monitoring period. The location of the mobile monitor will be in accordance with established Mobile Sound Monitoring Guidelines as follows:

- Located to monitor aircraft operations at MSP
  - Under/near known aircraft flight paths
- Where flight operations are at altitudes, concentrations, and configurations creating sound levels above community sound levels
- Away from known community sound sources (such as large arterial roads, train tracks, factories, transit centers, natural and other gathering spots) that may interfere with gathering aircraft sound data
- In areas where the permanent sound monitoring sites are not already monitoring aircraft noise levels
- Predominantly residential
- Within 100 feet of electrical power
- On public property (preferred)

## Possible locations

1. Water Tower (Cedar Hills Drive)
2. Fire Station # 2 (1815 Hopkins Crossroad)
3. Southwest Corner of Ford Park
4. LH Tanglen Elementary School

A back-up location will be identified in the event that the above targeted locations pose unforeseen challenges. The monitoring period will be adjusted if the backup location is chosen to achieve the required dataset. MAC staff will communicate any location changes and/or scheduling changes to the City of Minnetonka as soon as possible.

## What the data will provide

- Analysis of sound data collected from the mobile equipment and sound data collected at permanent noise monitoring sites near Minnetonka.

- An assessment of mobile data collected will determine aircraft noise levels and community noise levels in the areas where the mobile equipment is placed.
- An assessment of modeled versus monitored data.

#### What the data will NOT provide

- Residential sound insulation eligibility
- Changes to annual DNL noise contours
- Changes to aircraft operations.