



NOISE OVERSIGHT COMMITTEE

July 18, 2018

Audio recordings are made of this meeting

ITEM 1

REVIEW AND APPROVAL OF MAY 16, 2018 MEETING MINUTES



NOISE OVERSIGHT COMMITTEE
JULY 18, 2018



ITEM 2

REVIEW OF MONTHLY OPERATIONS REPORTS: MAY AND JUNE 2018



NOISE OVERSIGHT COMMITTEE
JULY 18, 2018



MSP OPERATIONS

MAY 2018

34,672

Operations

2,009

Nighttime Operations
(10:30 PM – 6:00 AM)

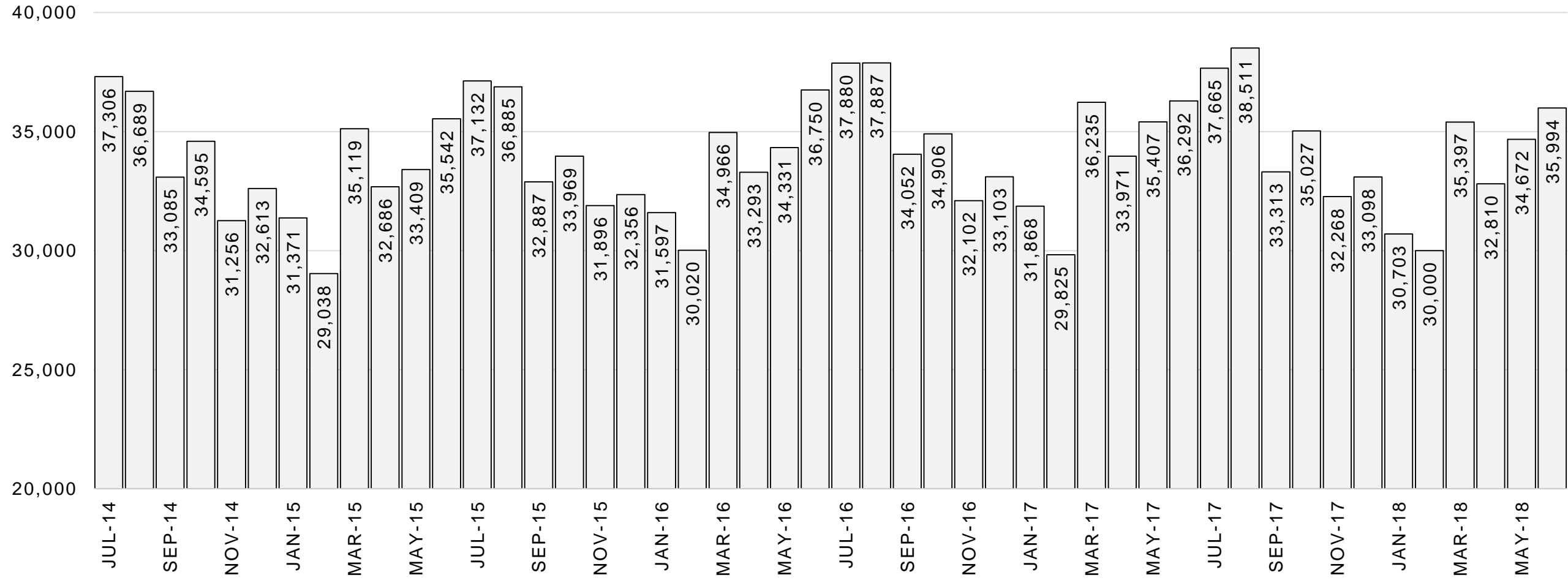
JUNE 2018

35,994

Operations

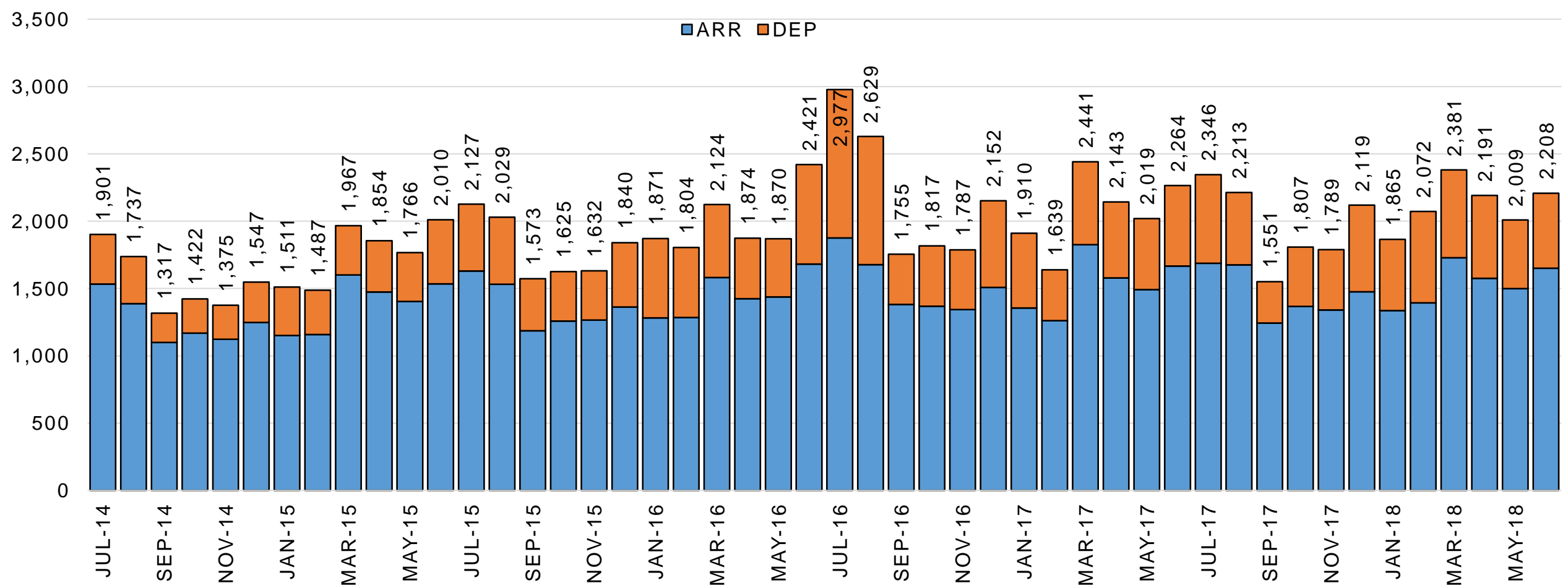
2,208

Nighttime Operations
(10:30 PM – 6:00 AM)



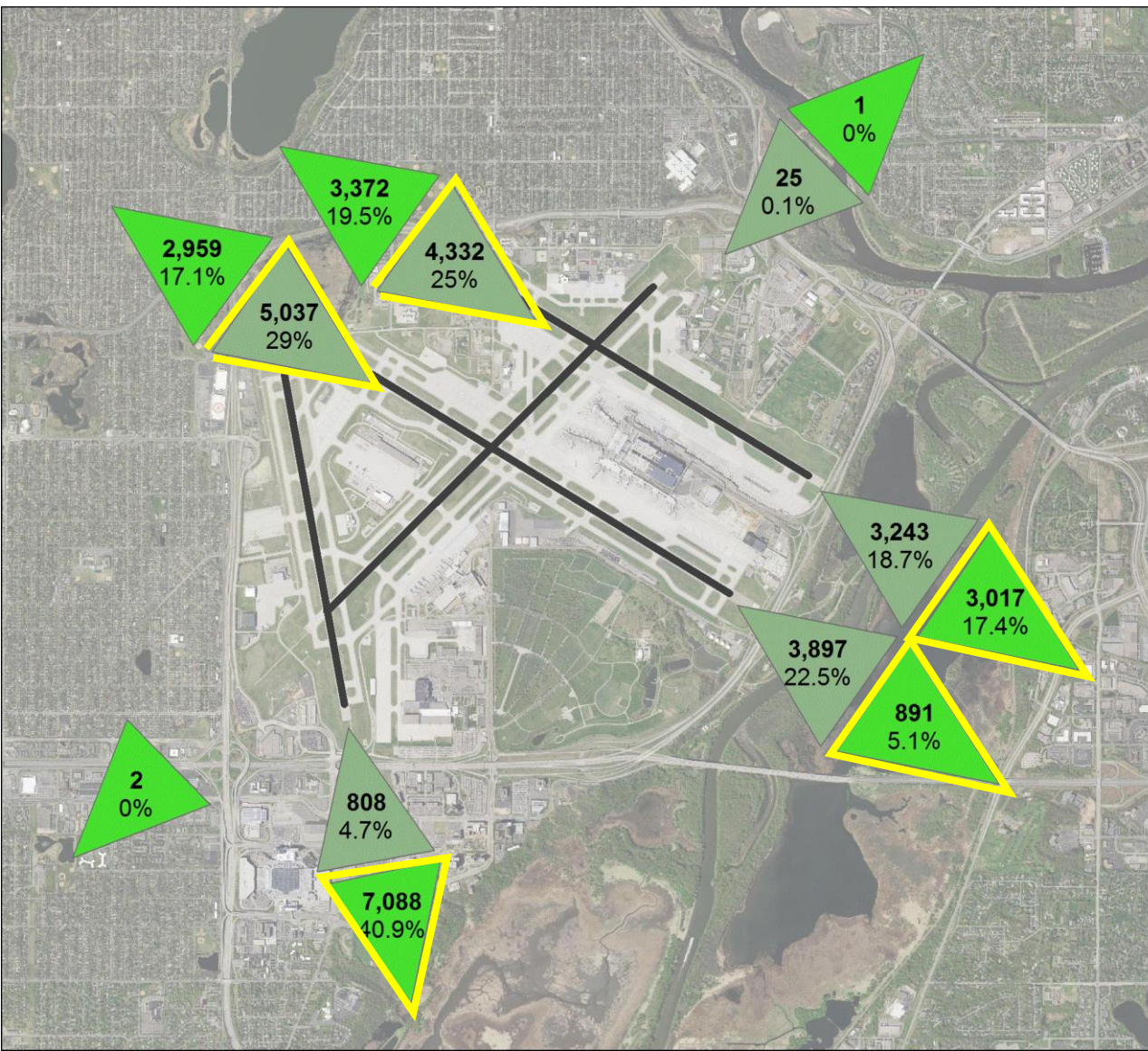
MSP OPERATIONS

MAY 2018		JUNE 2018	
34,672	2,009	35,994	2,208
Operations	Nighttime Operations (10:30 PM – 6:00 AM)	Operations	Nighttime Operations (10:30 PM – 6:00 AM)

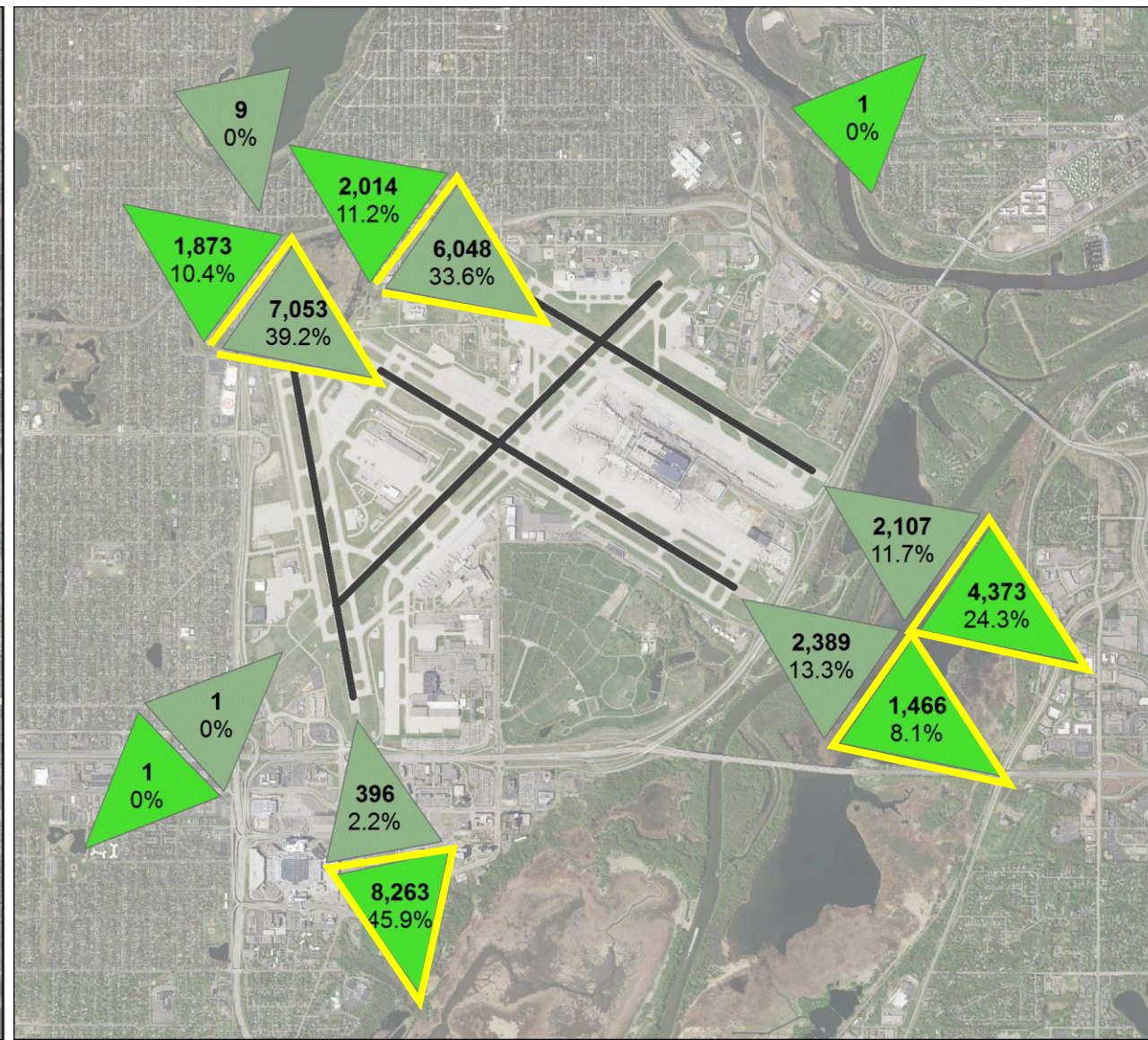


MSP OPERATIONS

MAY 2018



JUNE 2018





[MSP] MINNEAPOLIS
Windrose Plot [All Year]
Period of Record: 01 May 2017 - 01 Jul 2017

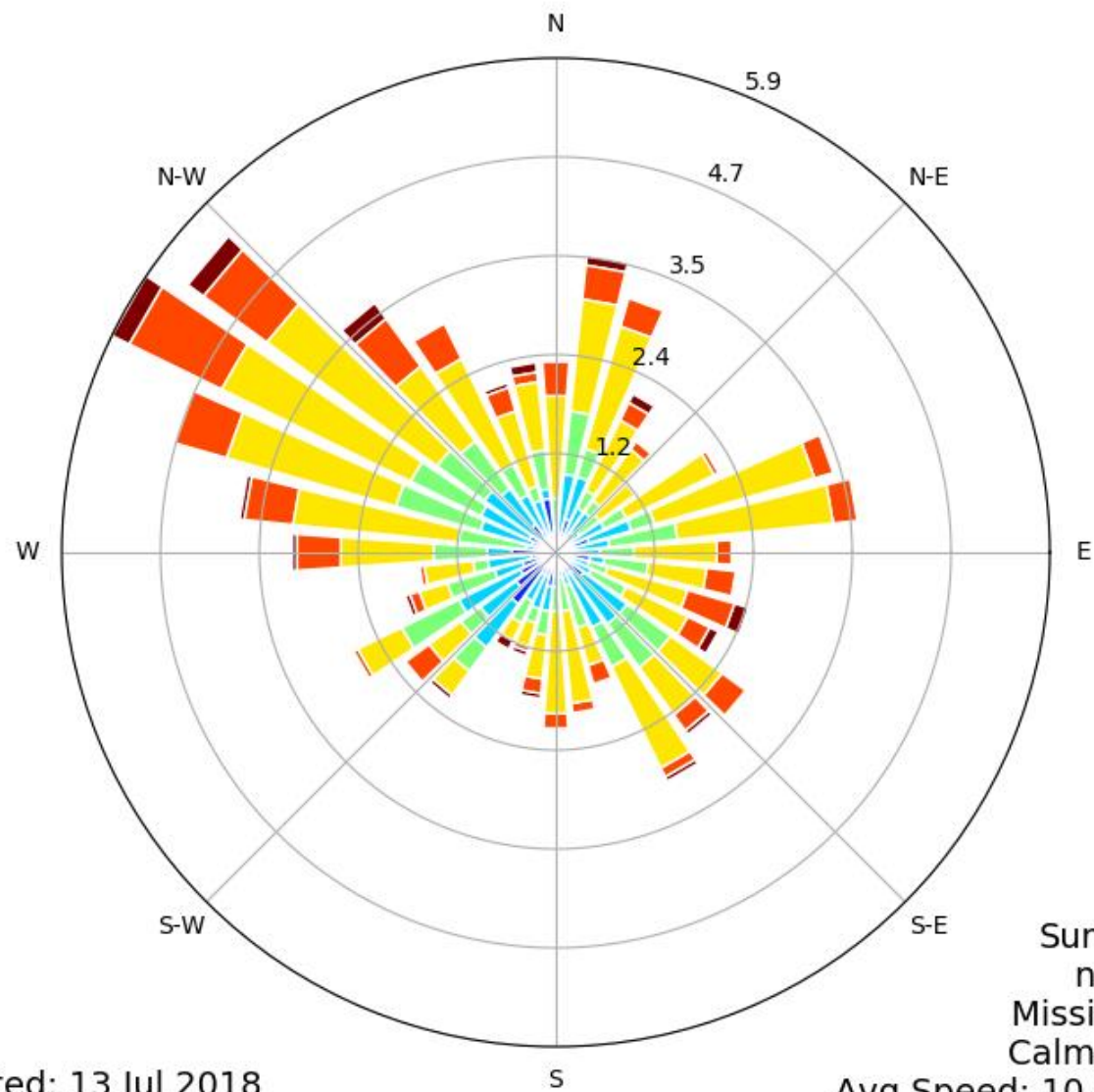
MAY-JUNE 2017

WINDS REPORTED
BETWEEN 215° AND 025°

53.7%

WINDS REPORTED
BETWEEN 035° AND 205°

38.1%



Generated: 13 Jul 2018





[MSP] MINNEAPOLIS
 Windrose Plot [All Year]
 Period of Record: 01 May 2018 - 01 Jul 2018

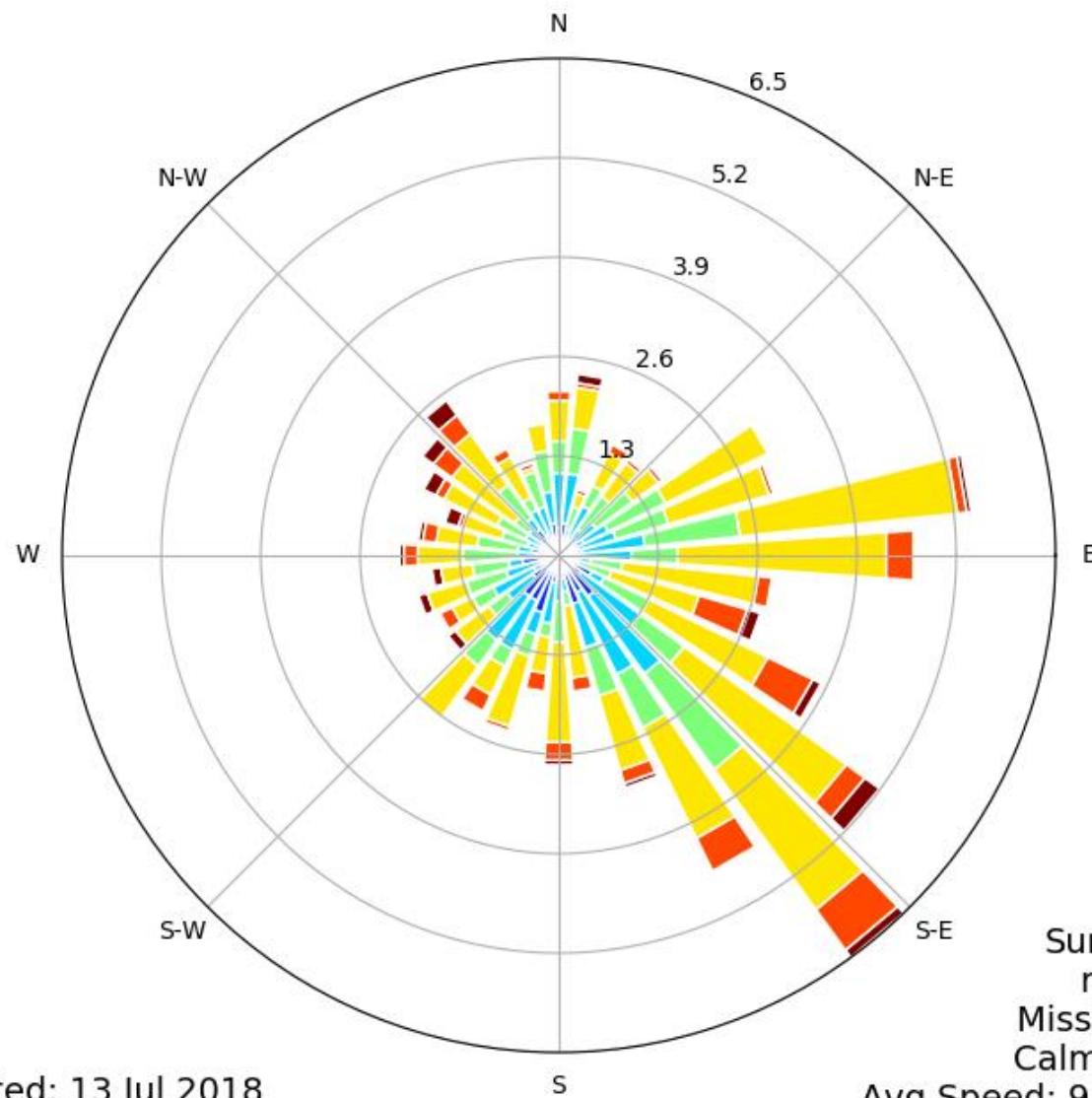
MAY-JUNE 2018

**WINDS REPORTED
 BETWEEN 215° AND 025°**

31.8%

**WINDS REPORTED
 BETWEEN 035° AND 205°**

56.7%



Summary
 n: 1742
 Missing: 62
 Calm: 7.7%

Generated: 13 Jul 2018

Avg Speed: 9.2 mph



RUNWAY USE

MAY 2018

JUNE 2018

NORTH FLOW	SOUTH FLOW	MIXED FLOW	NORTH FLOW	SOUTH FLOW	MIXED FLOW
24%	54%	15%	15%	72%	8%

NORTH FLOW – 261 HOURS (20%)



SOUTH FLOW – 832 HOURS (63%)

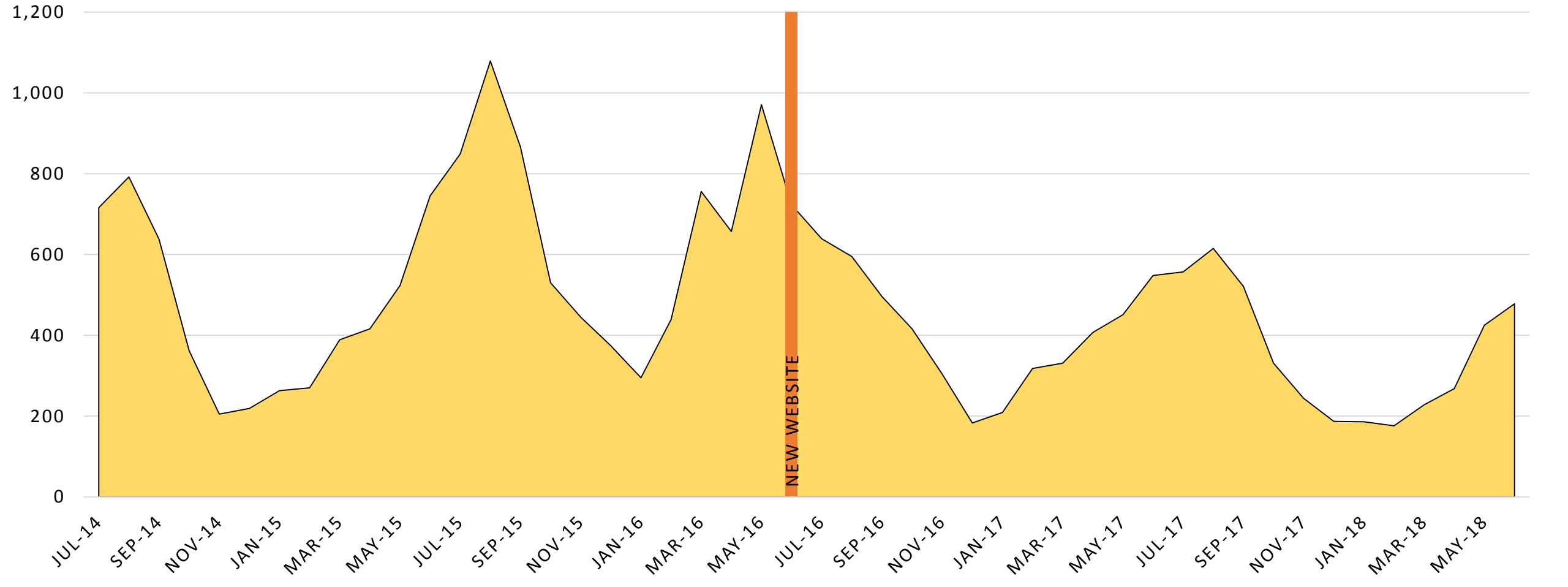


MIXED FLOW – 150 HOURS (11%)



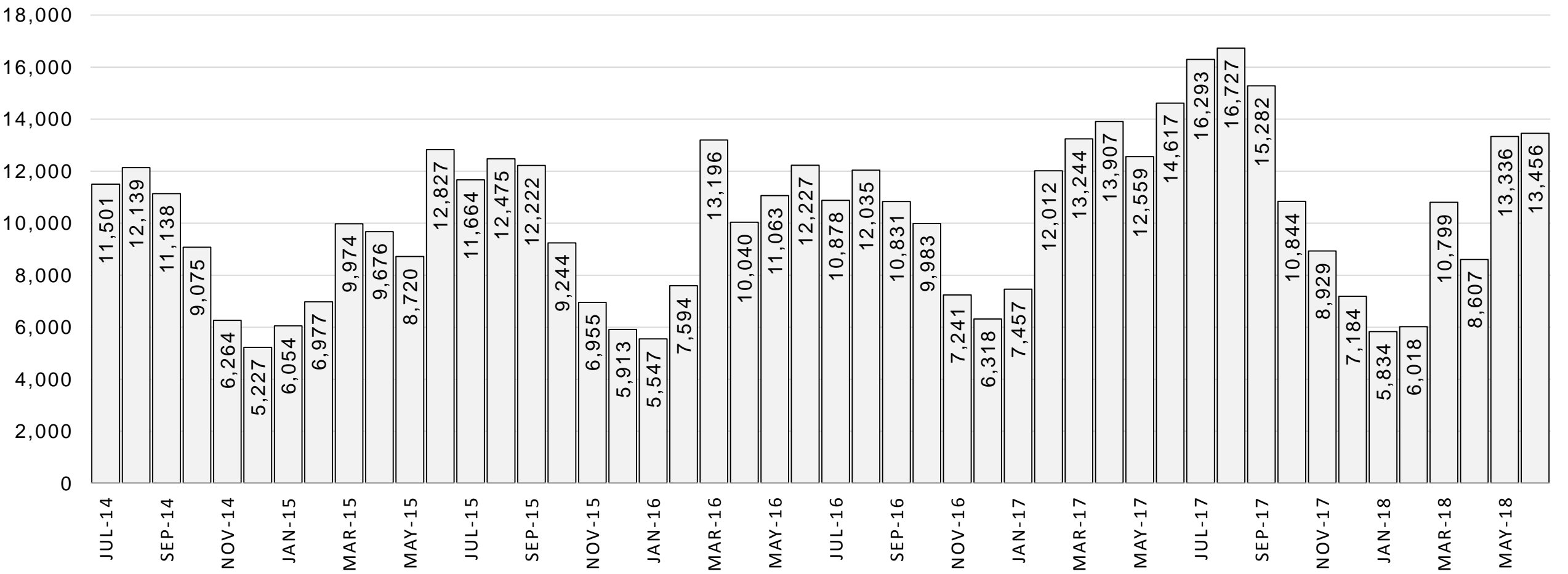
MSP COMPLAINTS

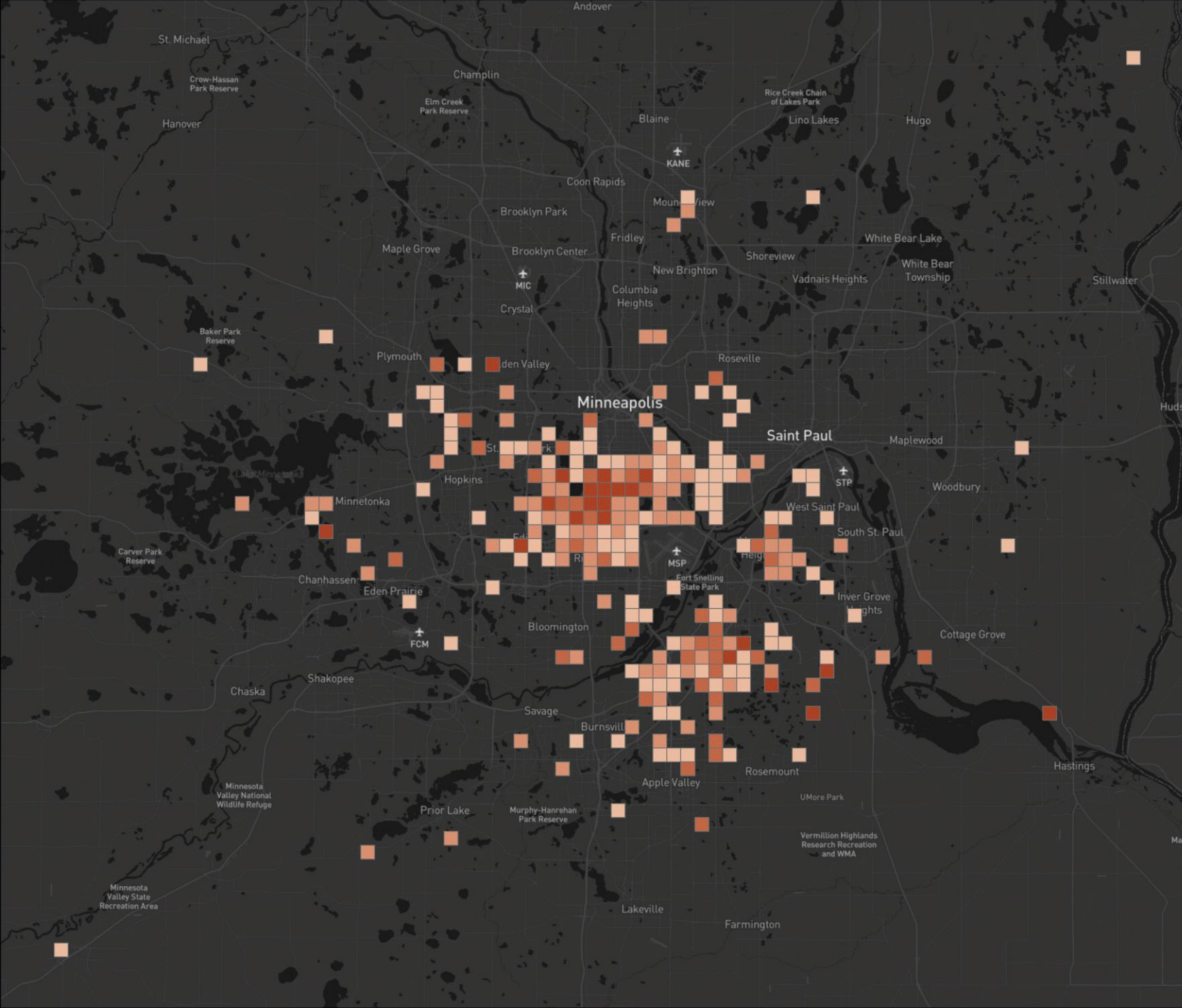
MAY 2018				JUNE 2018			
COMPLAINTS	LOCATIONS			COMPLAINTS	LOCATIONS		
13,336	425			13,456	478		
Operations per Complaint	New Locations	Average	Median	Operations per Complaint	New Locations	Average	Median
2.6	54	31	4	2.7	87	28	3



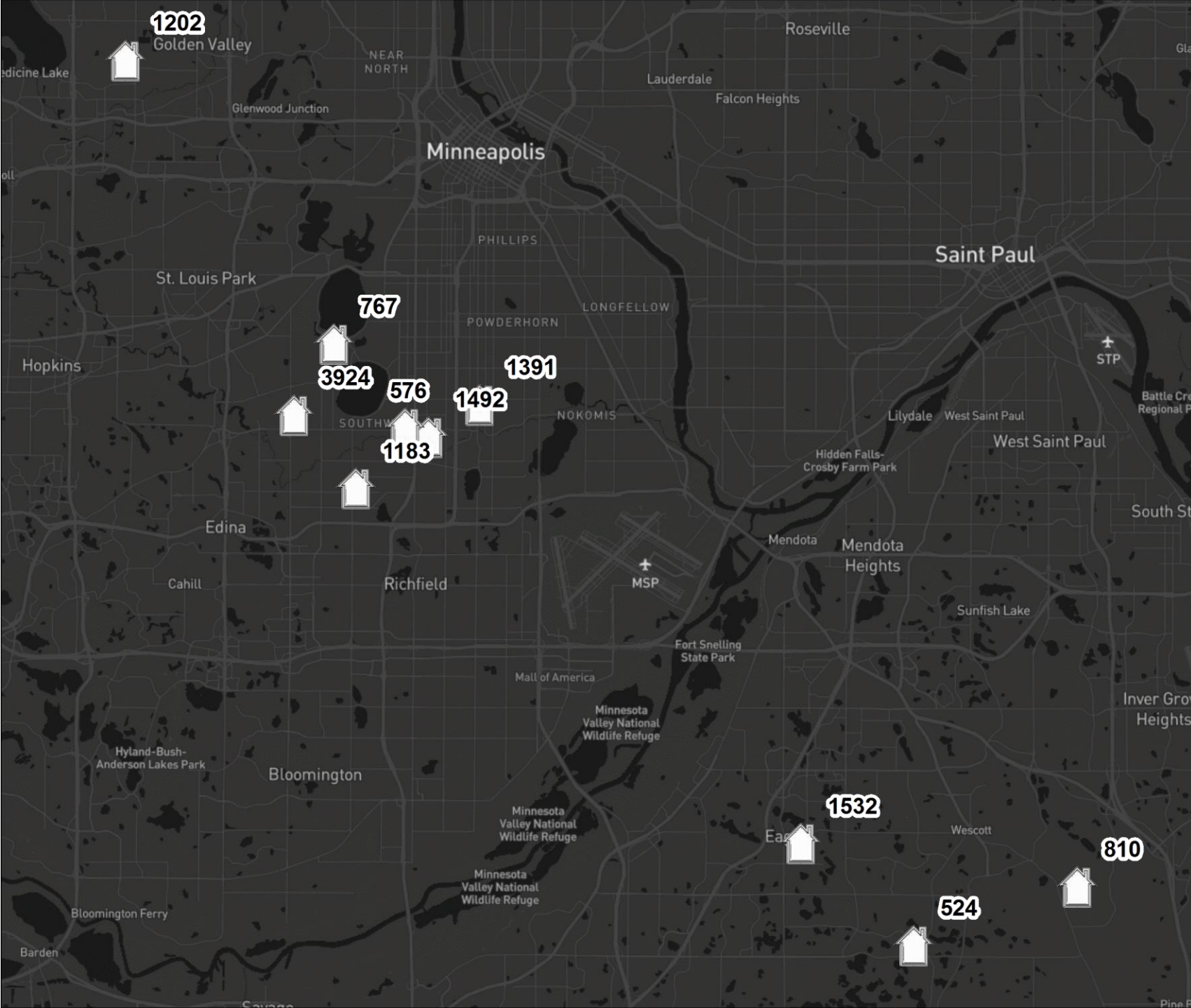
MSP COMPLAINTS

MAY 2018				JUNE 2018			
COMPLAINTS	LOCATIONS			COMPLAINTS	LOCATIONS		
13,336	425			13,456	478		
Operations per Complaint	New Locations	Average	Median	Operations per Complaint	New Locations	Average	Median
2.6	54	31	4	2.7	87	28	3





TOTAL COMPLAINTS	
250	AREAS WITH AT LEAST 1 LOCATION
21	AREAS WITH MORE THAN 300 COMPLAINTS – 8.4% (6.7%)
39	AREAS BETWEEN 60 AND 300 COMPLAINTS – 15.6% (12.8%)
86	AREAS BETWEEN 8 AND 60 COMPLAINTS – 34.4% (30.8%)
104	AREAS WITH LESS THAN 8 COMPLAINTS – 41.6% (49.7%)



TOP 10 LOCATIONS

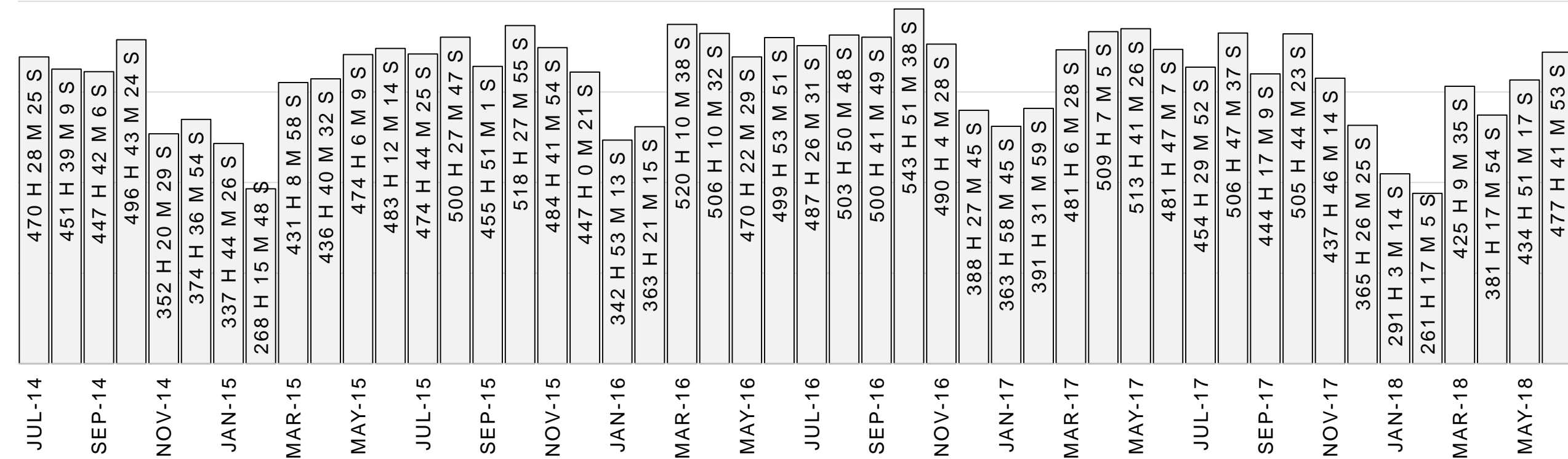
FILED
13,401
 (50%)
 COMPLAINTS DURING THE PREVIOUS
 2 MONTHS

8 OF 10
 LOCATIONS WERE IN THE TOP 10
 FOR MARCH / APRIL DATA

0
 (0%)
 LOCATIONS FILED 10 OR LESS
 COMPLAINTS

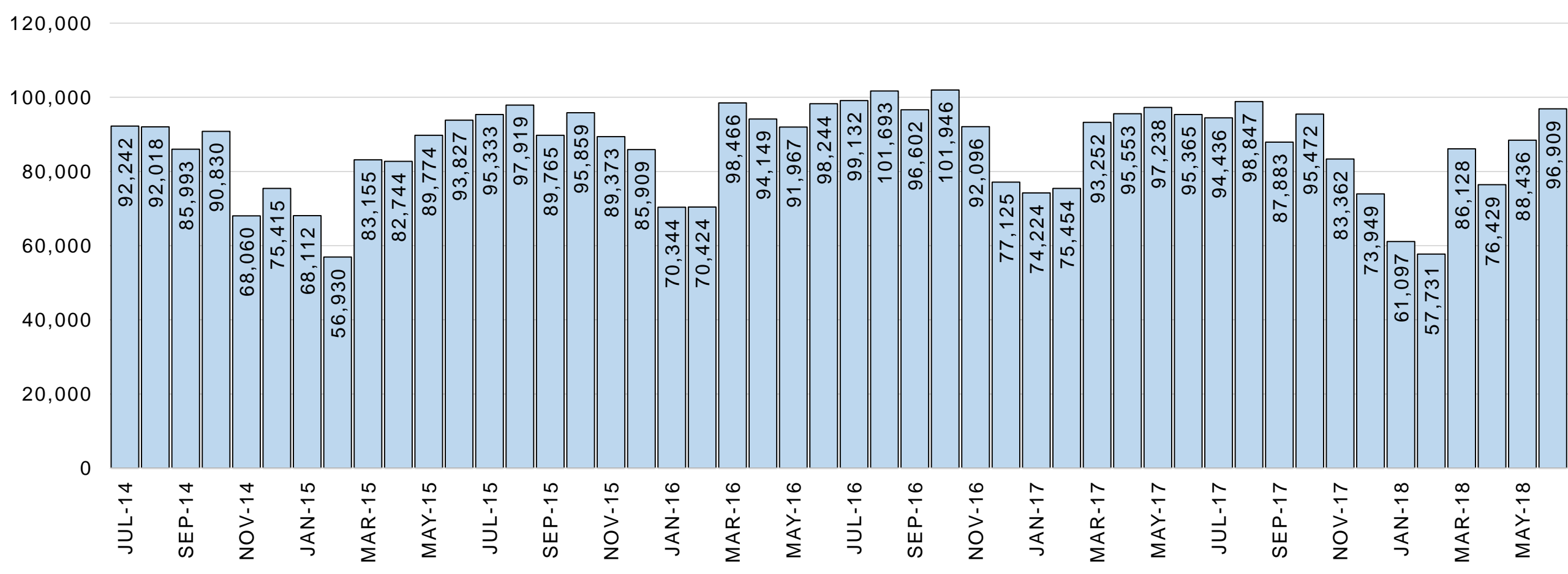
SOUND MONITORING

MAY 2018			JUNE 2018		
Time Above	45_s TA ⁶⁵ per operation	434_h 51_m TA ⁶⁵	Time Above	48_s TA ⁶⁵ per operation	477_h 41_m TA ⁶⁵
Count Above	2.55 N ⁶⁵ per operation	88,436 N ⁶⁵	Count Above	2.69 N ⁶⁵ per operation	96,909 N ⁶⁵



SOUND MONITORING

MAY 2018			JUNE 2018		
Time Above	45_s TA ⁶⁵ per operation	434_h 51_m TA ⁶⁵	Time Above	48_s TA ⁶⁵ per operation	477_h 41_m TA ⁶⁵
Count Above	2.55 N ⁶⁵ per operation	88,436 N ⁶⁵	Count Above	2.69 N ⁶⁵ per operation	96,909 N ⁶⁵



NOISE ABATEMENT

MAY 2018

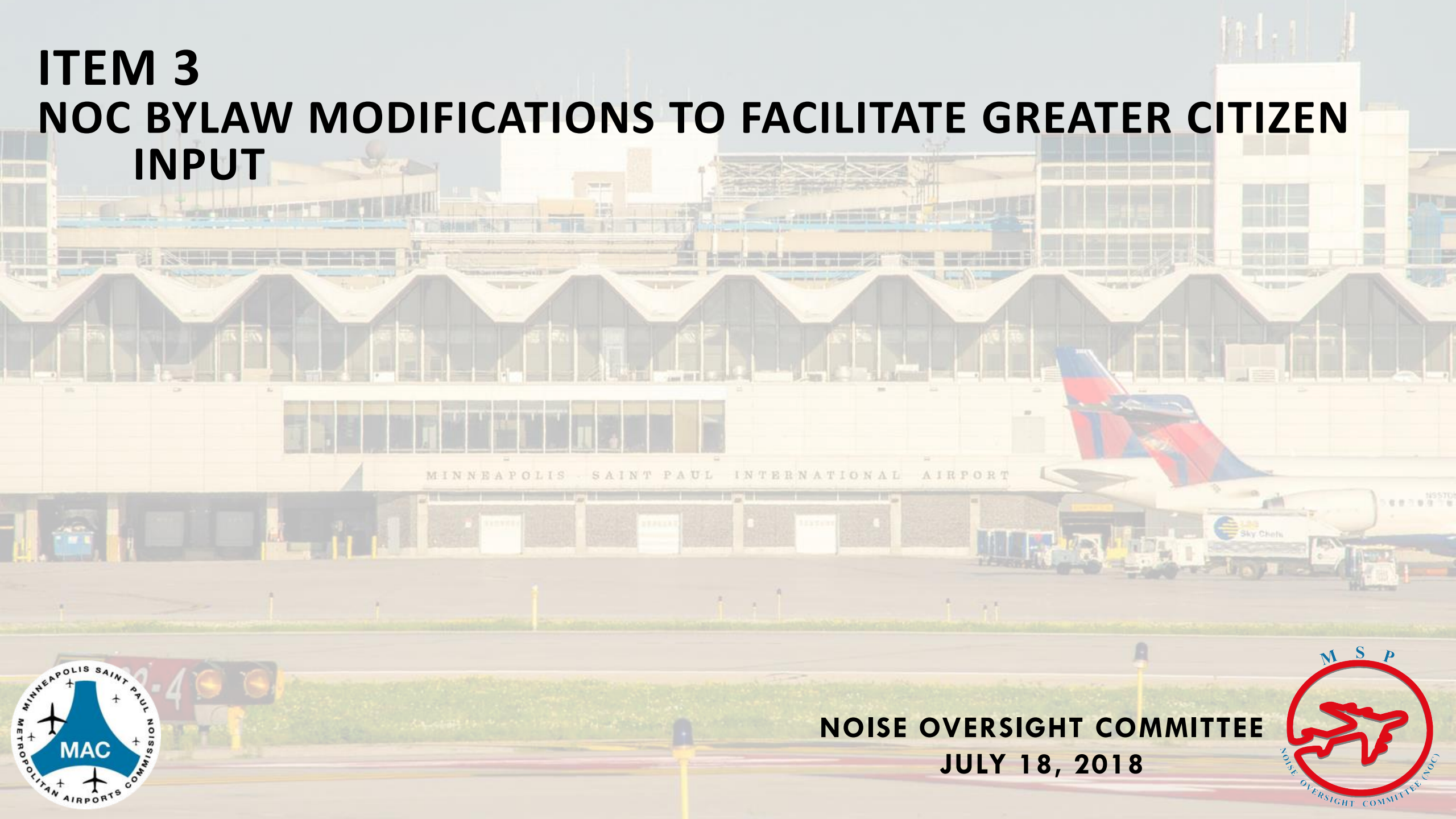
JUNE 2018

Runway 17	99.3%
Corridor	96.0%
Cross Day	39.9%
Cross Night	39.2%

Runway 17	99.8%
Corridor	96.0%
Cross Day	39.0%
Cross Night	45.4%

RUS	54.6%	Arrive – 46%	Depart – 64%	RUS	52.8%	Arrive – 27%	Depart – 78%
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ITEM 3 NOC BYLAW MODIFICATIONS TO FACILITATE GREATER CITIZEN INPUT



MINNEAPOLIS - SAINT PAUL INTERNATIONAL AIRPORT



**NOISE OVERSIGHT COMMITTEE
JULY 18, 2018**



Item 3: NOC Bylaw Subcommittee Recommendations

- In January, the NOC established a Bylaw Review Subcommittee in response to a request from MSP FairSkies to “Enhance the NOC with greater stakeholder (citizen) representation”
- The NOC Bylaw Review Subcommittee discussed NOC Bylaws ARTICLE VIII Committee Meetings and shared a list of recommended changes at the May NOC meeting
- At the suggestion of the Subcommittee, members of the Committee were provided time to deliberate and share the recommendations prior to taking action
- Redline edits to the NOC Bylaws were provided in the agenda packet for the July NOC meeting
- Changes resulting in the action today will become effective at the September NOC meeting



COMMITTEE ACTION REQUESTED

CONSIDER APPROVAL OF THE MODIFICATIONS TO THE NOC BYLAWS CONSISTENT WITH THE NOC BYLAW COMMITTEE RECOMMENDATIONS, AS SHOWN IN ATTACHMENT 1 OF THE MEETING AGENDA PACKET.



ITEM 4 REVIEW RESIDENTIAL NOISE MITIGATION PROGRAM IMPLEMENTATION STATUS

PATRICK MOSITES, MAC AIRPORT DEVELOPMENT



**NOISE OVERSIGHT COMMITTEE
JULY 18, 2018**



RESIDENTIAL NOISE MITIGATION PACKAGES

According to the 2007 Consent Decree, the MAC will provide 2 different packages depending on exposure area:

- Eligible homes within the 63dB DNL contour receive the Full 5dB Reduction Package, designed to reduce interior noise levels by an average of 5dB
- Eligible homes within the 60dB DNL contour receive the Partial Noise Reduction Package, which comes with two options:
 - Central air conditioning + \$ allowance for mitigation products and services; or
 - \$\$ allowance for noise mitigation products and services
 - Previous reimbursement phase program funds received will be deducted from the mitigation allowances.



FULL 5DB REDUCTION PACKAGE

Reduces interior noise levels by an average of five decibels, achieved by application of some or all of the following:

- Repair/replacement of exterior windows
- Addition of wall and attic insulation
- Addition, repair and/or replacement of exterior acoustic storm windows
- Baffling of roof vents and chimney treatment
- Repair/replacement of existing prime doors
- Addition of central air conditioning
- Addition, repair and/or replacement of exterior acoustic storm doors

Any mitigation improvements previously provided by the MAC will be considered in the finalizing the design process.



PARTIAL NOISE REDUCTION PACKAGE

Eligible homeowners pick one of the following:

- A: If no central air conditioning exists in the home, installation of central air conditioning and a total not to exceed \$5,503* of noise mitigation products and services, including reasonable and customary installation costs; or
- B: If central air conditioning exists, or if the homeowner chooses not to receive central air conditioning, a total not to exceed \$19,262* of noise mitigation products and services, including reasonable and customary installation costs.

*Dollar allowances are adjusted each year using the Consumer Price Index for the previous year; specified dollar allowances apply to initial Design Visits on or after April 1, 2018.

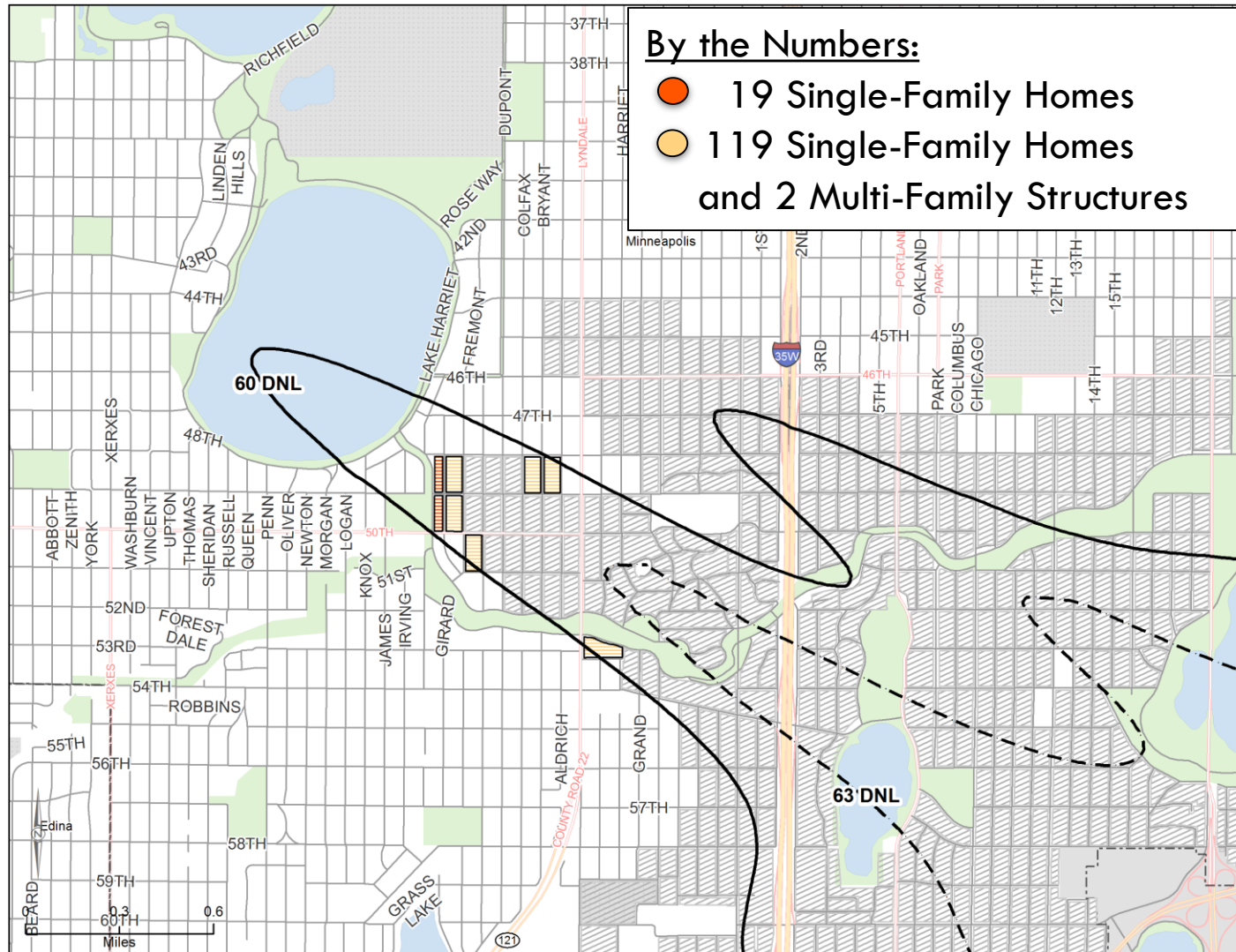




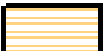
2017 MITIGATION PROGRAM

- The 2013/2014/2015 actual noise contours qualified 138 single-family homes for the Partial Noise Reduction Package
- 2 multi-family structures with a total of 88 units were eligible to participate in the Multi-Family Mitigation Program. Only one multi-family participated and is complete.
- All homes are located in the City of Minneapolis
- In collaboration with the City of Minneapolis, letters confirming home's eligibility were sent in June 2016
- Homeowner Orientation meetings, Design Visits, and construction began in mid-2017



2017 MITIGATION PROGRAM ELIGIBILITY



-  Blocks completed under previous programs
-  Blocks eligible for 2017 Partial Noise Reduction Package
Outside any previous areas of mitigation
-  Blocks eligible for 2017 Partial Noise Reduction Package
Eligible for reimbursements under the previous mitigation program



2017 MITIGATION PROGRAM STATUS REPORT

The following presents a breakdown of project progress on a total of **138 homes** in the Partial Noise Reduction Package

Noise Mitigation Status Report	Partial Noise Reduction Package		Total
	Phase 4A (AC + \$5,503 Allowance)	Phase 4B (\$19,262 Allowance)	
COMPLETED HOMES	41	62	103
Homes in Construction	8	7	15
Homes in Pre-Construction	0	8	8
Declined Participation	4	8	12
Total	53	85	138

The MAC has spent \$2,046,650 to-date for the 2017 Mitigation Program

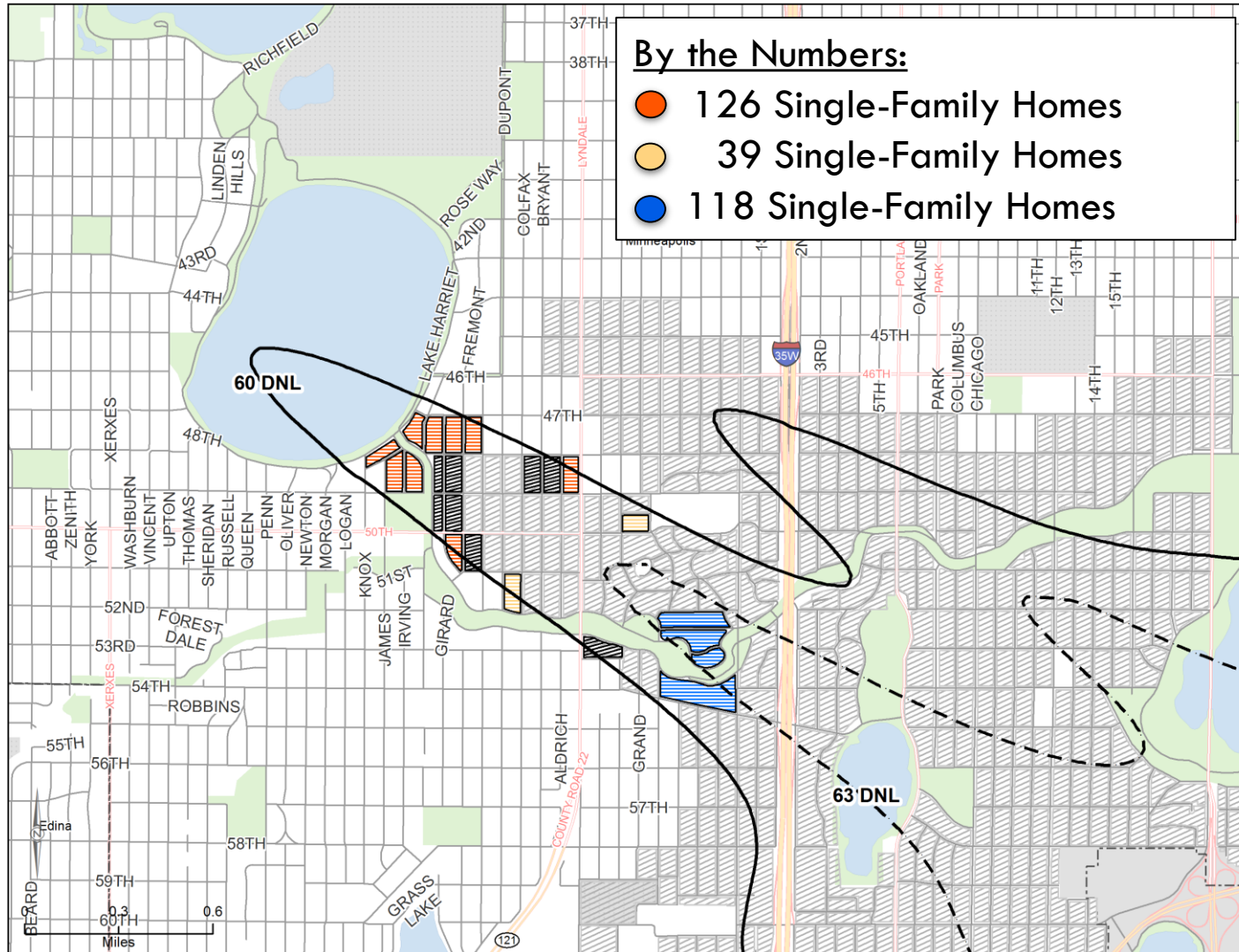


2018 MITIGATION PROGRAM

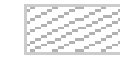




- The 2014/2015/2016 actual noise contours qualified 165 single-family homes for the Partial Noise Reduction Package and 118 single-family homes for the Full 5dB Reduction Package
- There are no multi-family units within the 2018 Mitigation Program
- All homes are located in the City of Minneapolis
- Eligible homeowners were notified through two separate mailings by the MAC and the City of Minneapolis in June 2017
- Six Homeowner Orientation meetings were held throughout 2017
- Design Visits with eligible homeowners began in August 2017
- Construction began in January 2018



2018 MITIGATION PROGRAM ELIGIBILITY



By the Numbers:
 ● 126 Single-Family Homes
 ● 39 Single-Family Homes
 ● 118 Single-Family Homes

-  Blocks completed under previous programs
-  Blocks completed as part of the 2017 Mitigation Program
-  Blocks eligible for 2018 Partial Noise Reduction Package
Outside any previous areas of mitigation
-  Blocks eligible for 2018 Partial Noise Reduction Package
Eligible for reimbursements under the previous mitigation program
-  Blocks eligible for 2018 Full 5dB Reduction Package
Eligible for Partial Noise Reduction under the previous mitigation program



2018 MITIGATION PROGRAM STATUS REPORT

The following presents a breakdown of project progress on a total of **165 homes** in the Partial Noise Reduction Package and **118 homes** in the Full 5dB Reduction Package

Noise Mitigation Status Report	Partial Noise Reduction Package		Full 5dB Reduction Package	Total
	Phase 5A (AC + \$5,395 Allowance)	Phase 5B (\$18,884 Allowance)		
COMPLETED HOMES	10	28	10	48
Homes in Construction	27	51	26	104
Homes in Pre-Construction	14	32	80	126
Declined Participation	3	0	2	5
Total	54	111	118	283

The MAC has spent \$1,220,350 to-date for the 2018 Mitigation Program

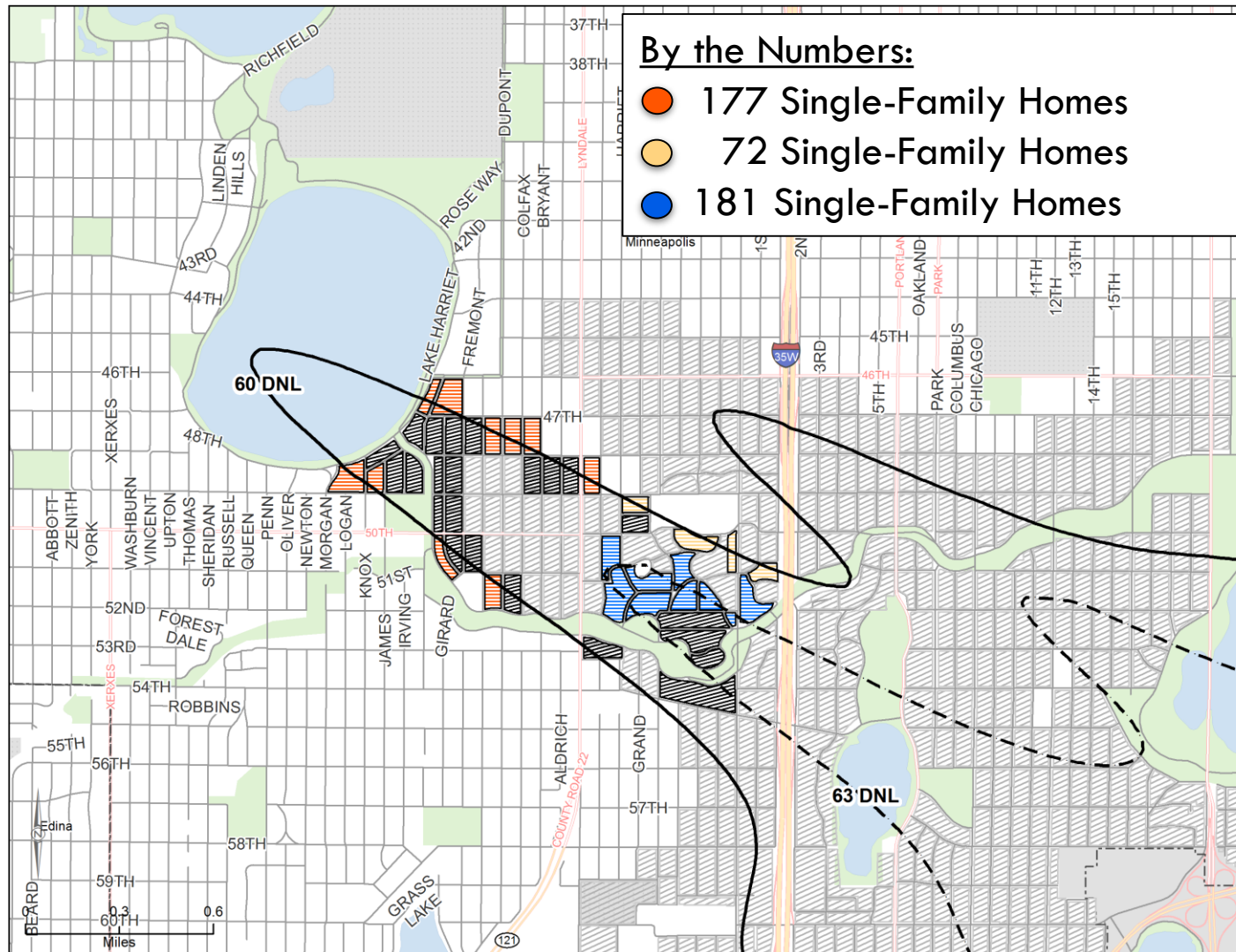


2019 MITIGATION PROGRAM


- The 2015/2016/2017 actual noise contours qualified 249 single-family homes for the Partial Noise Reduction Package and 181 single-family homes for the Full 5dB Reduction Package
- There are no multi-family units within the 2019 Mitigation Program
- All homes are located in the City of Minneapolis
- Eligible homeowners were notified through two separate mailings by the MAC and the City of Minneapolis
- Ten Homeowner Orientation meetings will be held on a monthly basis beginning in March 2018
- Design Visits of homes will begin in June 2018
- Construction efforts will begin in January 2019





2019 MITIGATION PROGRAM ELIGIBILITY




 Blocks completed under previous programs

 Blocks completed as part of the 2017 & 2018 programs

 Blocks eligible for 2019 Partial Noise Reduction Package
Outside any previous areas of mitigation

 Blocks eligible for 2019 Partial Noise Reduction Package
Eligible for reimbursements under the previous mitigation program

 Blocks eligible for 2019 Full 5dB Reduction Package
Eligible for Partial Noise Reduction under the previous mitigation program



QUESTIONS/CONTACT US

Contact Us:

www.macnoise.com/contact-noise-program-office

Noise Complaint Line: 612-726-9411

MAC Phone Number: 612-726-8100

2017 Annual Noise Contour Report:

www.macnoise.com/noise-mitigation-program/msp-annual-noise-contour-analysis-reports

Mitigation Eligibility Interactive Map:

www.macnoise.com/noise-mitigation-program/residential-noise-mitigation-map



ITEM 5 MSP NOISE BENCHMARKING STUDY REVIEW

MARY ELLEN EAGAN, HMMH



NOISE OVERSIGHT COMMITTEE
JULY 18, 2018



MSP Noise Management Benchmarking Study: Results

Presented to: MSP Noise Oversight Committee (NOC)

Mary Ellen Eagan

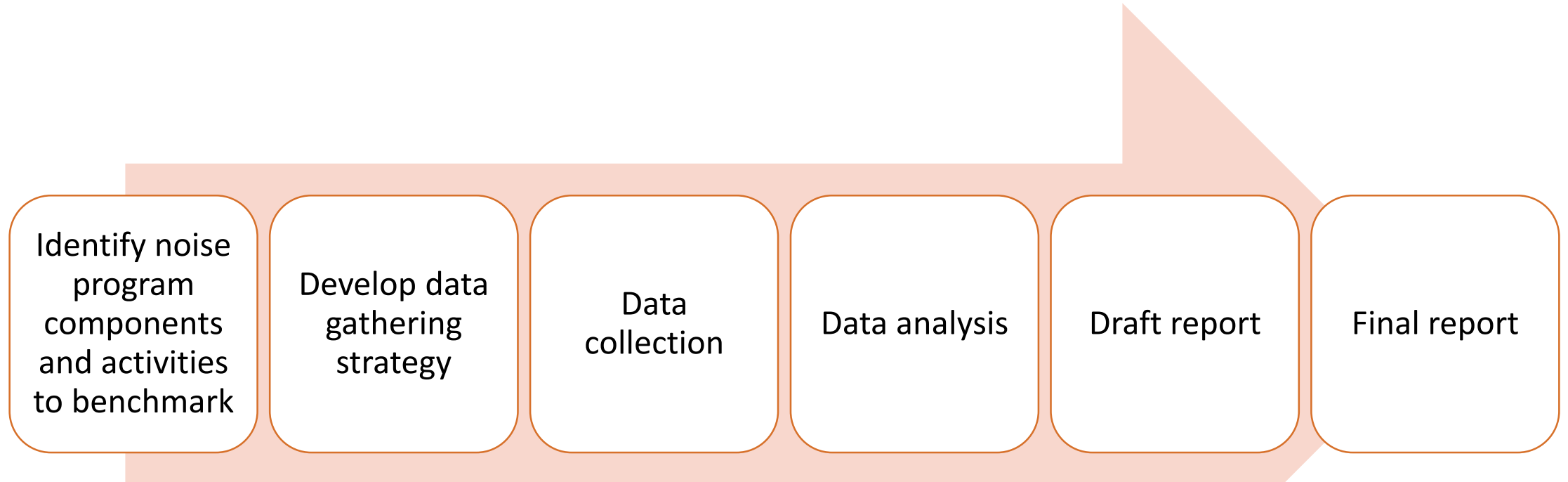
July 18, 2018

Agenda

- Methodology
- Results
- Recommendations

Methodology

Methodology

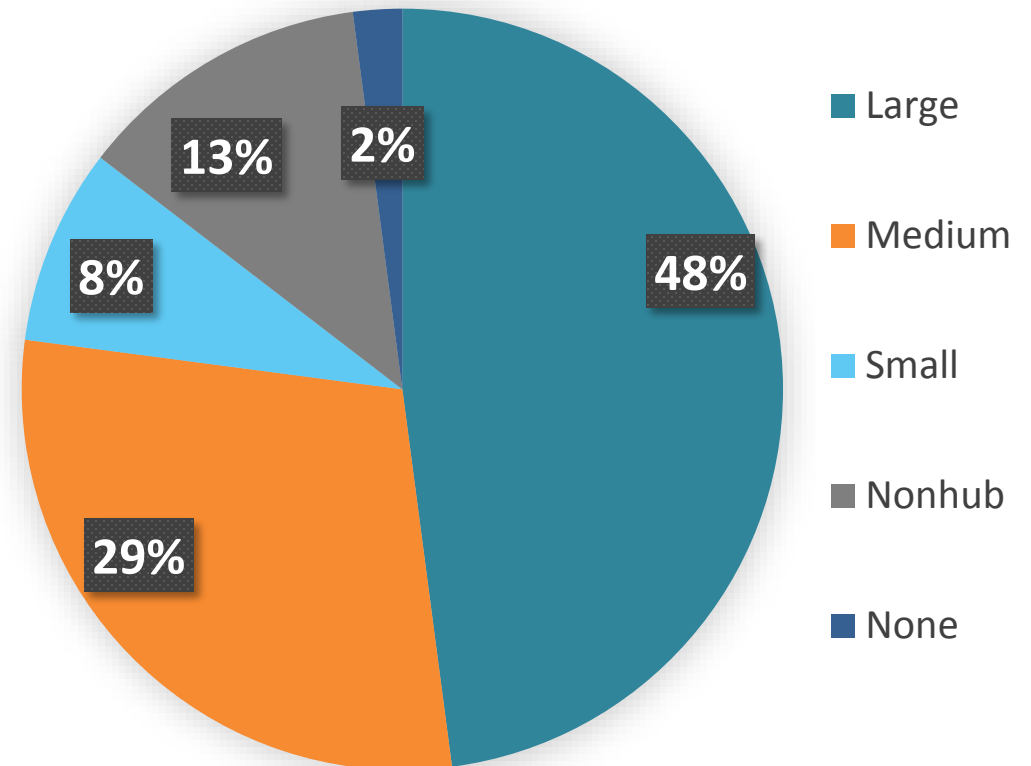


Survey Categories

- Program Management and Innovative Use of Technology Measures
- Stakeholder Engagement Measures
- Operational Measures
- Mitigation and Land Use Measures
- Policy and Research Measures

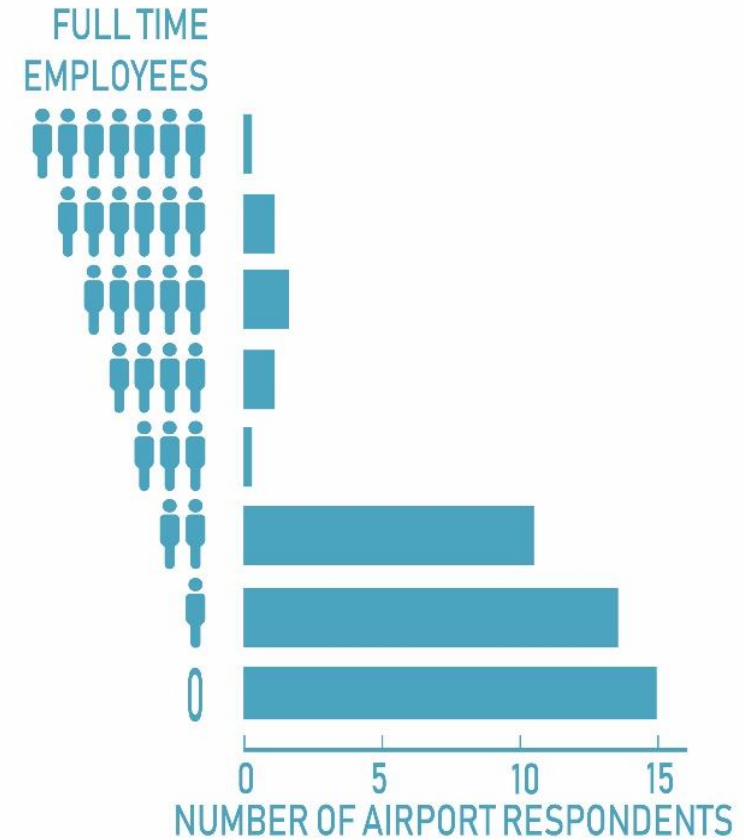
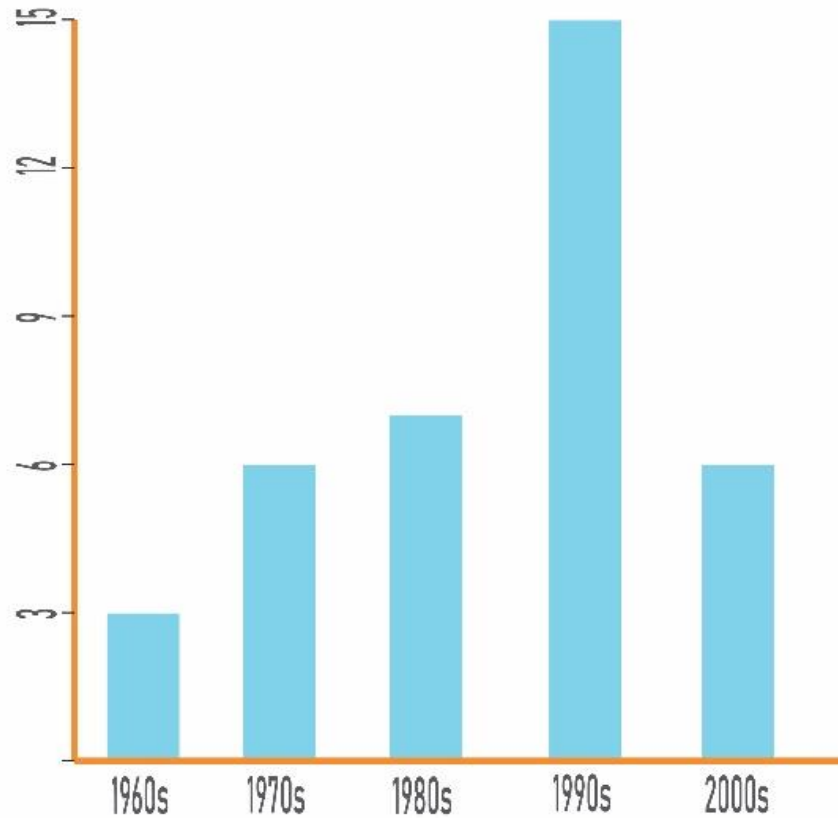
Results: Respondent Demographics

- 54 complete responses (75% response rate)
- 48 US airports, 6 Canadian airports
- Responses from all FAA regions, except Alaska



Results: Program Management and Innovative Use of Technology

Noise Office Establishment and Staffing



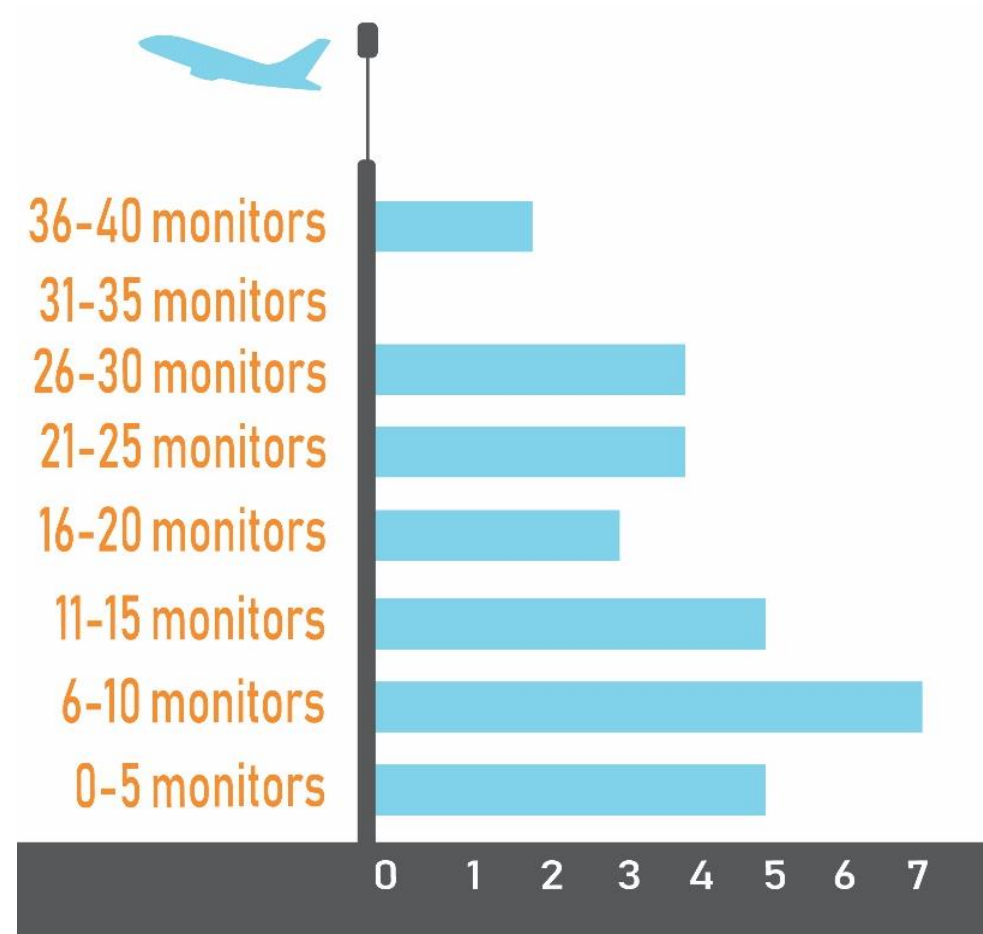
Decade that respondents' noise offices were established

Number of full-time noise office employees



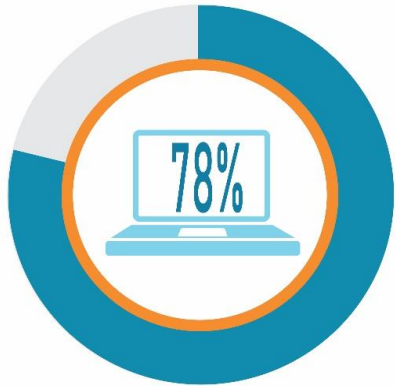
Noise Monitoring

- 56% of respondents have permanently installed noise monitors, including MSP
- MSP has the most noise monitoring towers (39) of all respondents



Number of respondents with different sized systems

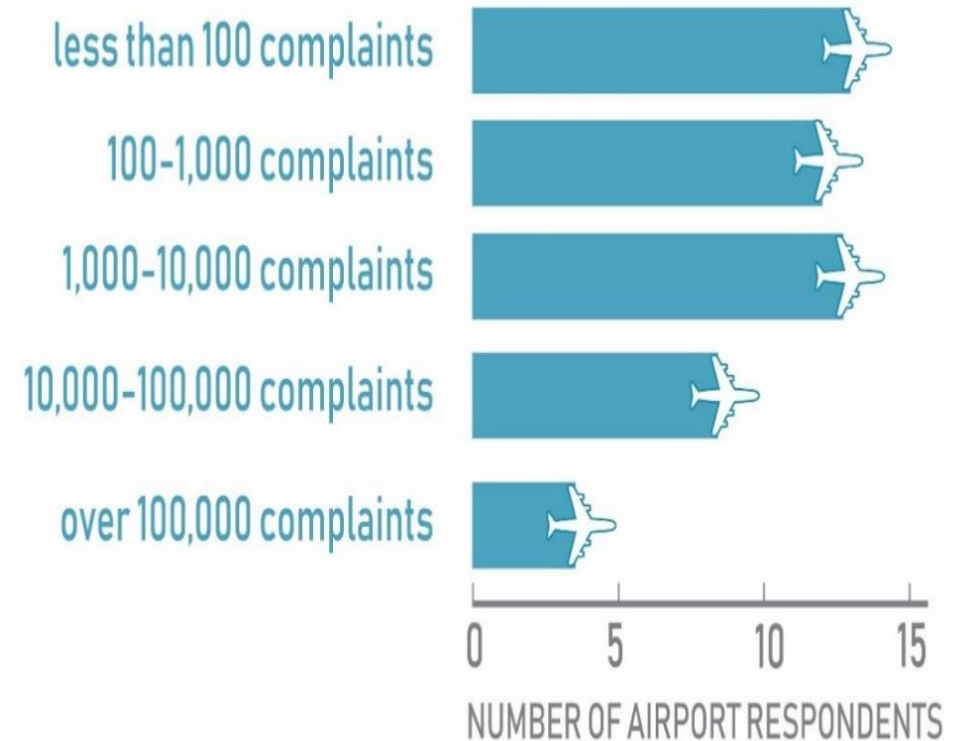
Complaints



- MSP has the 2nd highest number of complaints among surveyed airports
- 47% of airport noise offices respond to each noise complaint (out of 53 responses).



- MSP staff commits to respond to complainants within three business days if the complainant requests a response.

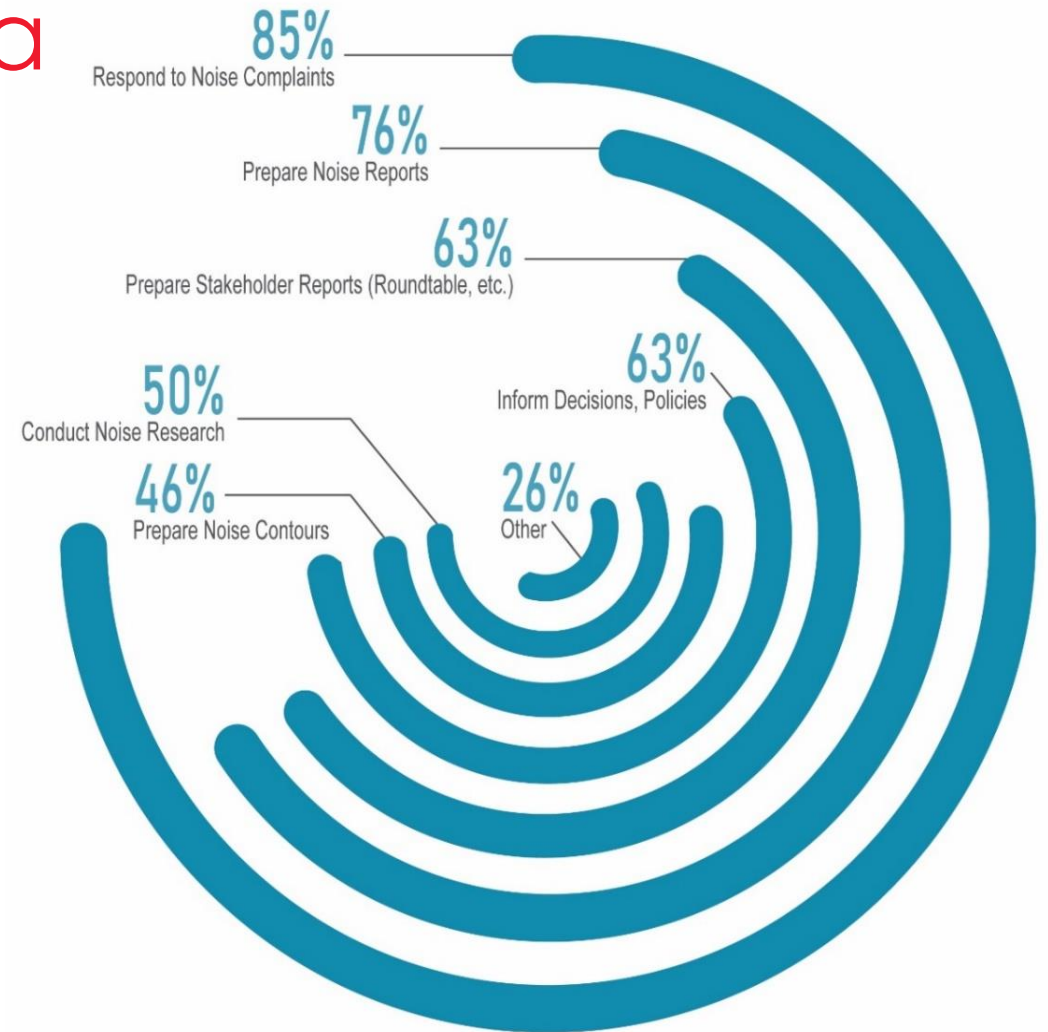


Range of total noise complaints

Use of Monitoring System Data



Respondents that provide flight track/noise monitoring data online

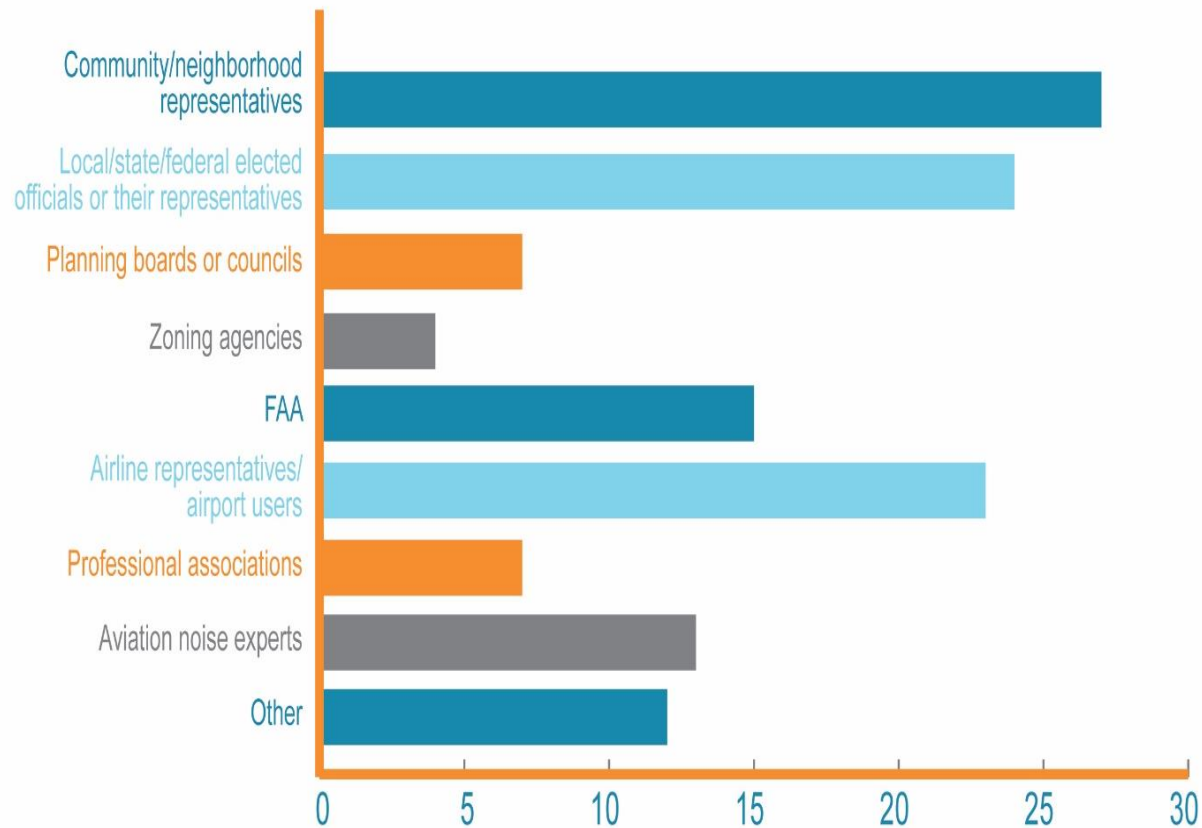


Uses of monitoring system data



Results: Stakeholder Engagement Measures

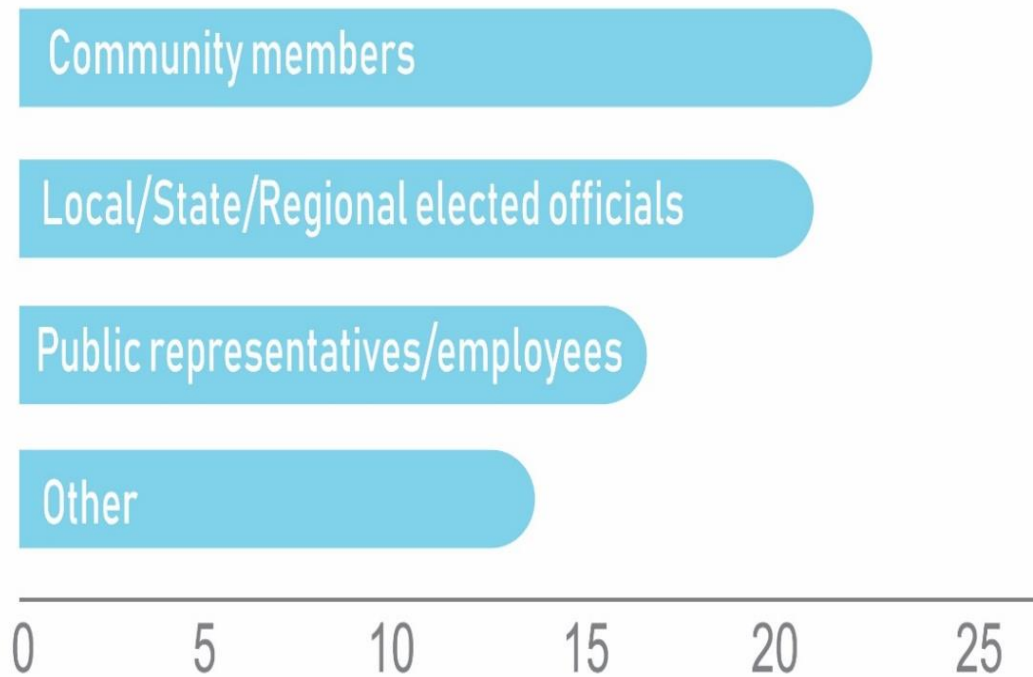
Standing Noise Committees/Roundtables



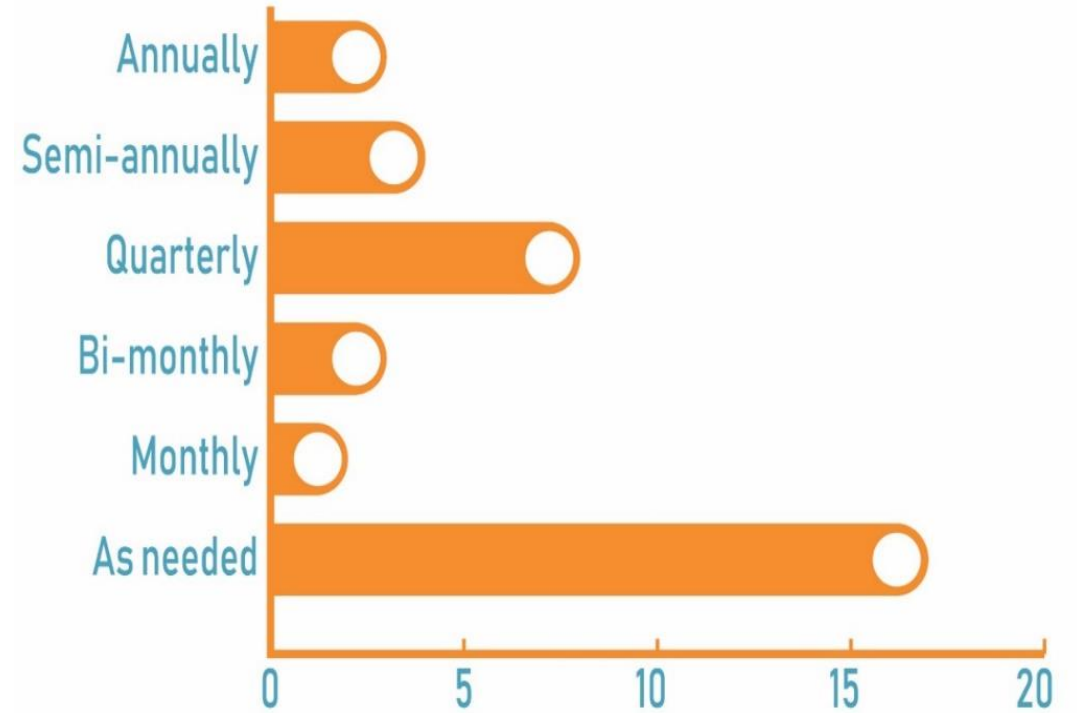
Stakeholder groups represented on advisory committees or roundtables

- 54% of respondents have a standing noise advisory committee/roundtable
- 80% of respondents reported that their standing noise committee does not have established/stated goals

Public Meetings Beyond Formal Committee/Roundtable



Types of regular meetings with other external groups

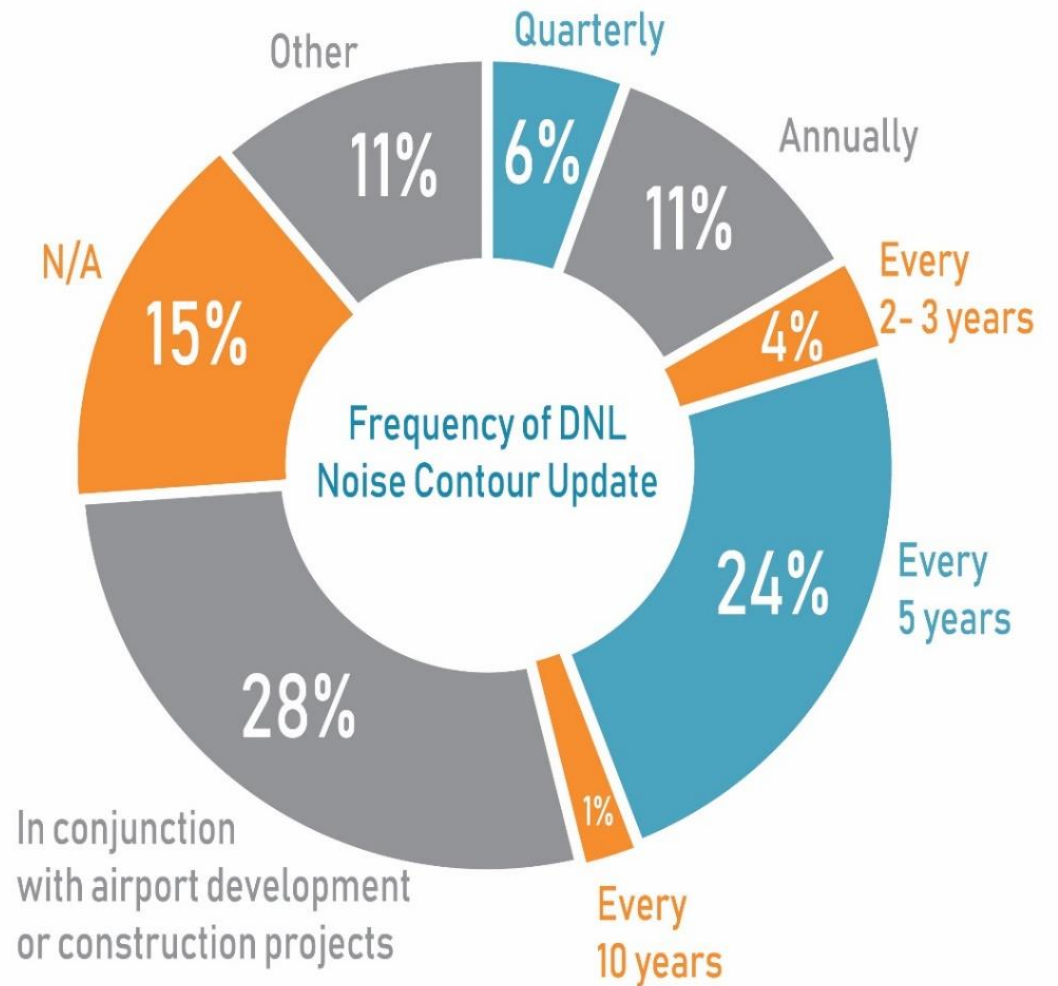


Frequency of meetings with other external groups



Noise Contour Reporting

- 65% report at DNL 65 dB and up
- MSP is one of six airport respondents that report at DNL 60 dB and up



Frequency of updating DNL noise contours



Noise Reporting

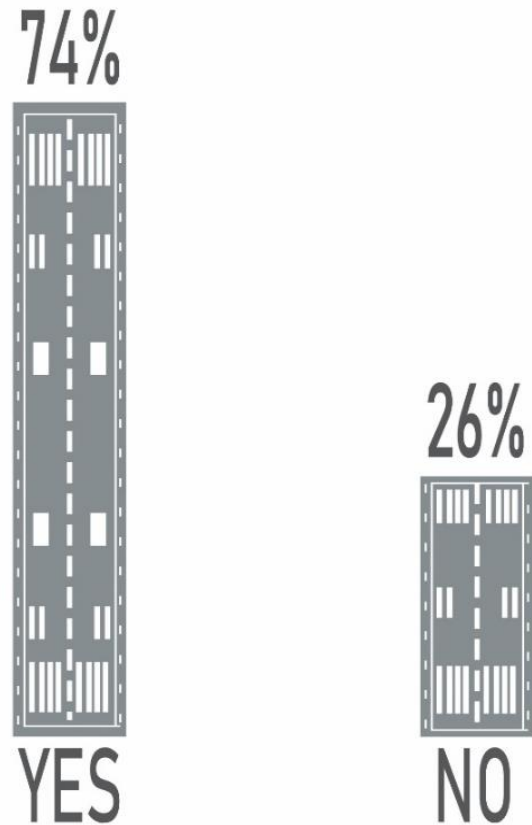


Frequency of noise reporting

- 56% of airport respondents report that they publish reports pertaining to noise at the airport
- MSP provides the ability for users to create custom electronic/online noise reports based on user inputs

Results: Operational Measures

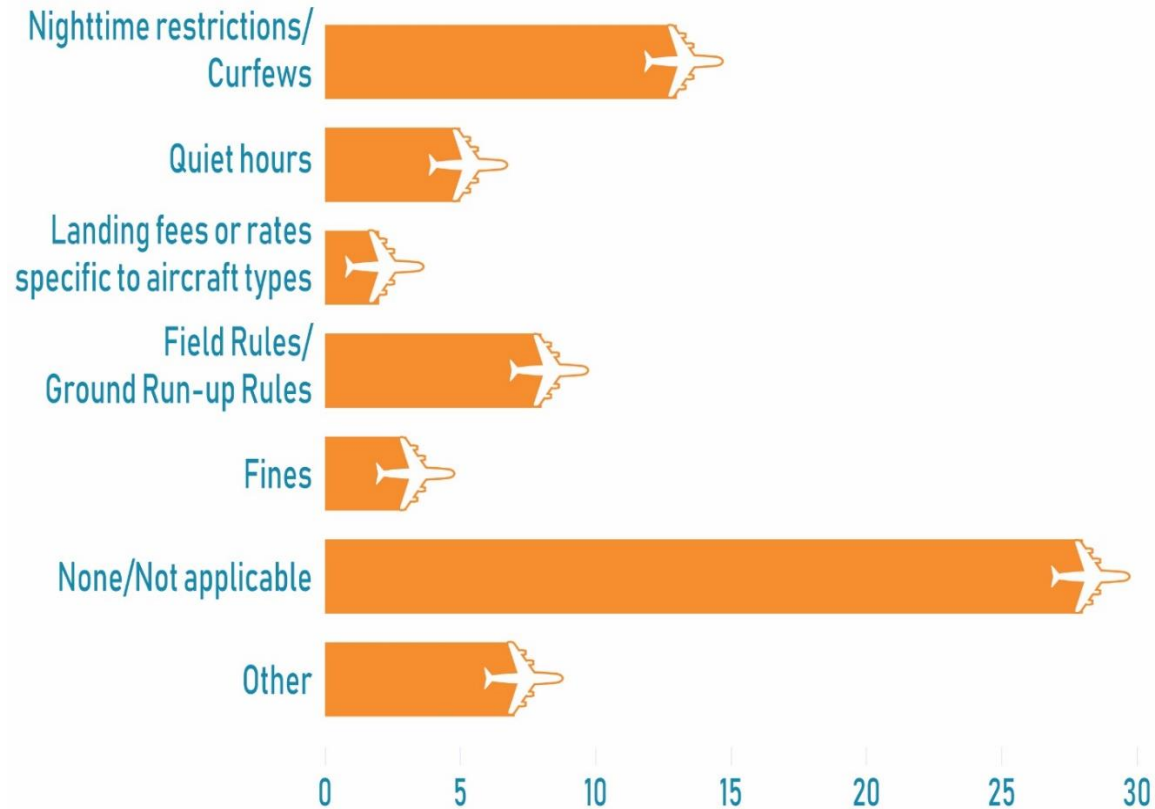
Preferential Runway Use and Noise Abatement Procedures



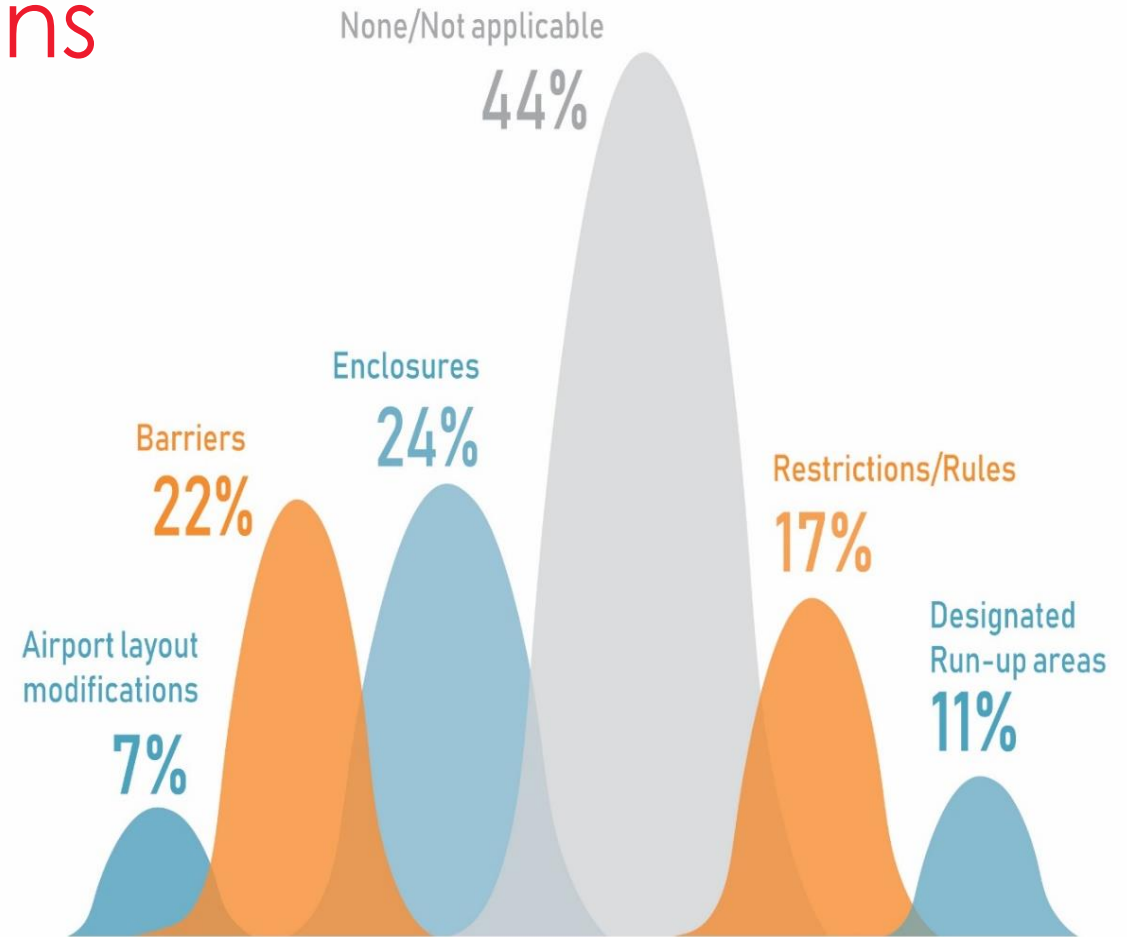
Respondents with preferential runway use programs

- 56% of have suggested/voluntary NAPs in place at their airport; 20% report that they have required NAPs
- 47% of respondents report tracking and reporting compliance with NAPs, including MSP
- Only 2 out of 47 airport respondents report that they have instituted greater than 3-degree glide slopes purely for noise reduction purposes.

Operational Use Restrictions



Respondents reporting each operational use restriction



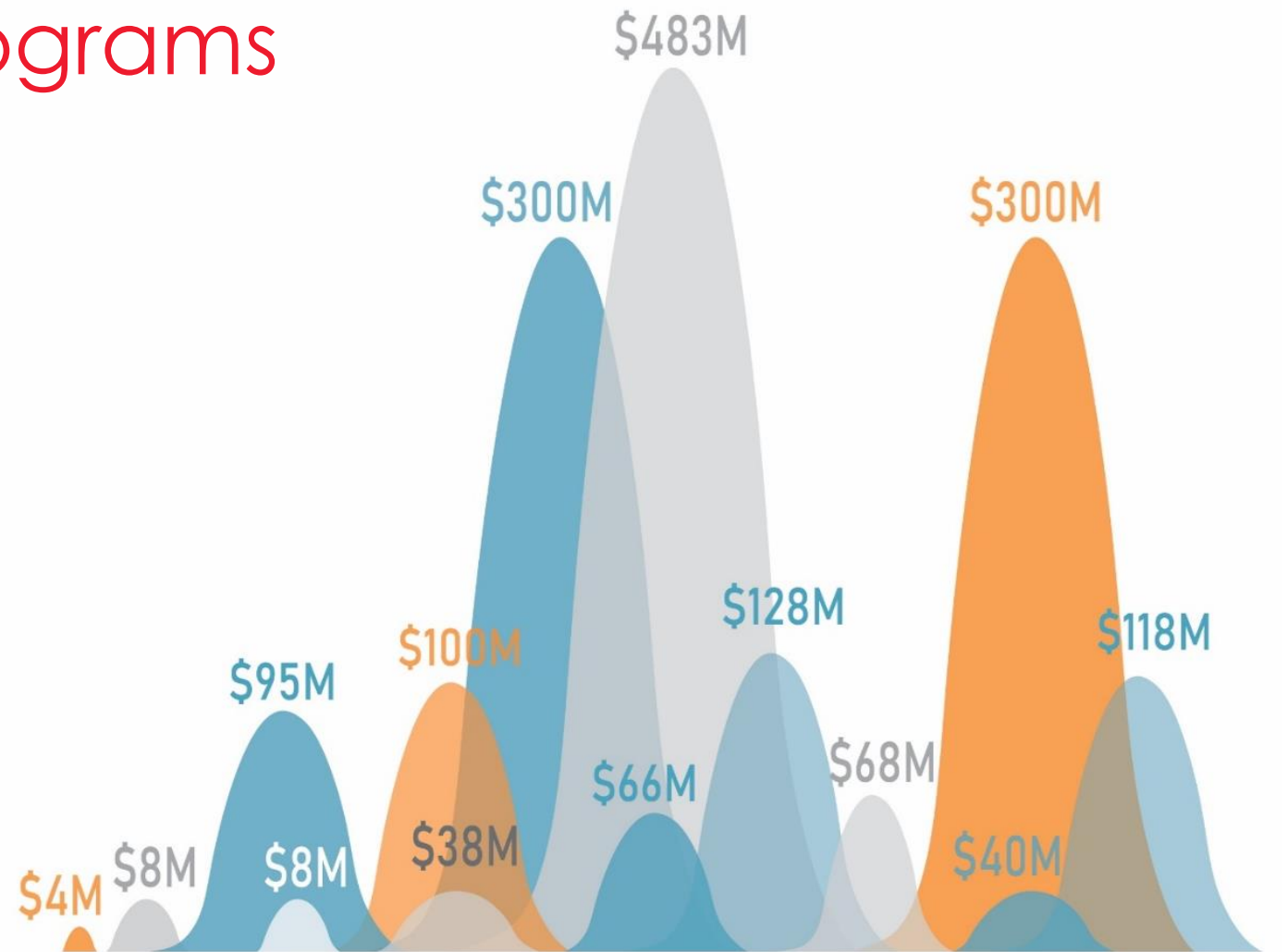
Percent of respondents utilizing each ground noise mitigation measure



Results: Mitigation and Land Use Measures

Sound Insulation Programs

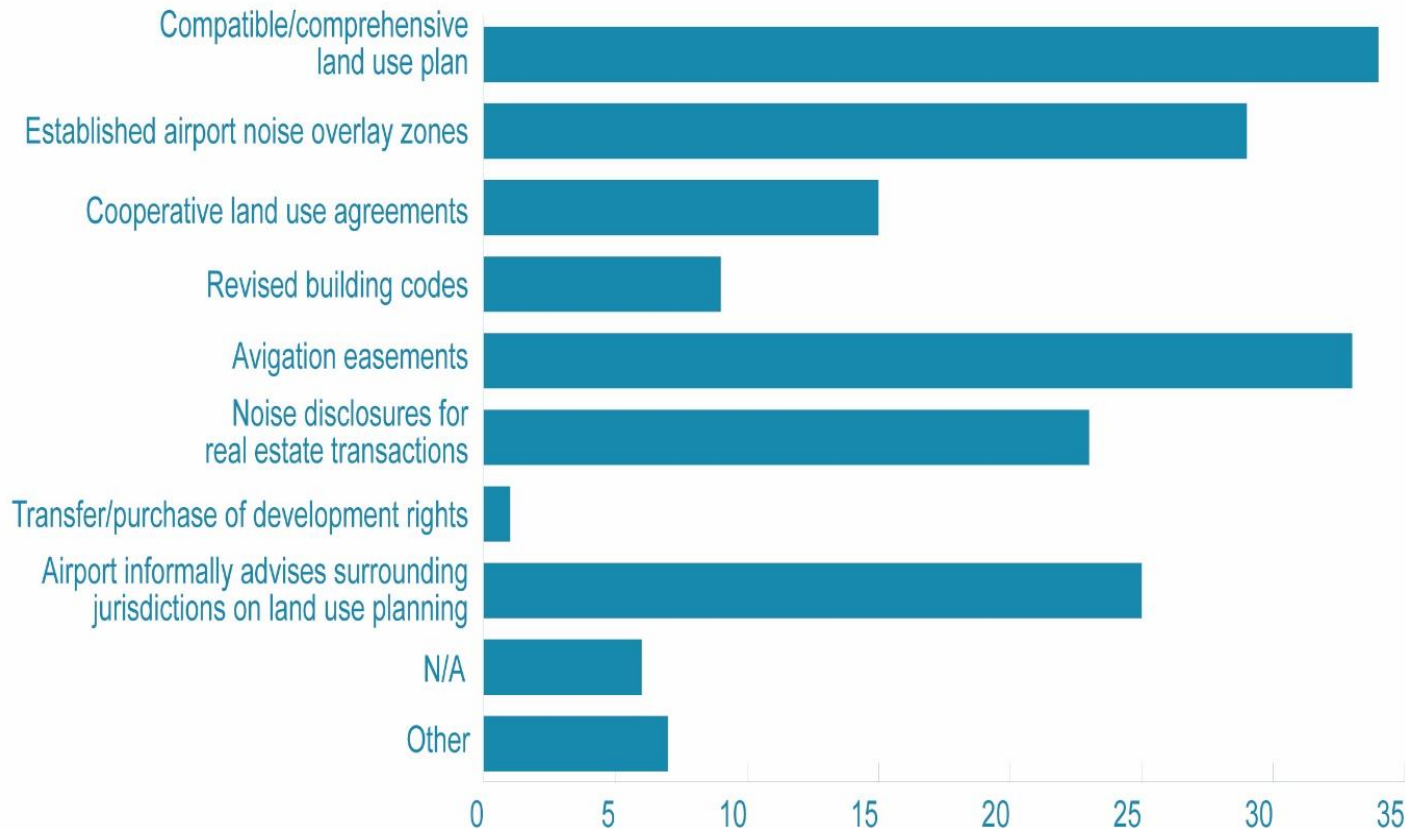
- MSP was the only airport respondent to report providing sound insulation to residential homes outside the 65 DNL contour
- MSP reported the highest cost of sound insulation at \$482.9M



Cost of sound insulation programs



Partnering with Local Jurisdictions



- 89% of respondents reported partnering with local jurisdictions concerning noise mitigation and land use

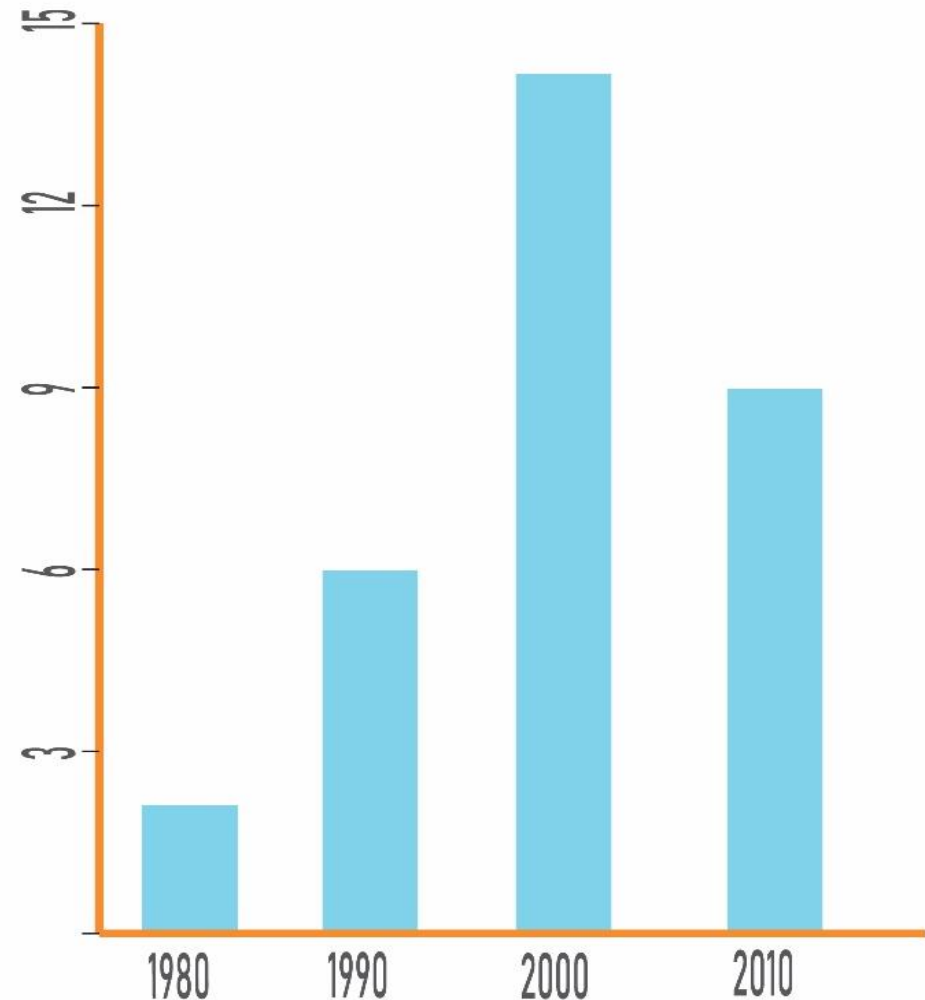
Respondents that reported partnering with local jurisdictions concerning noise mitigation and land use



Results: Policy and Research Measures

Part 150 Studies

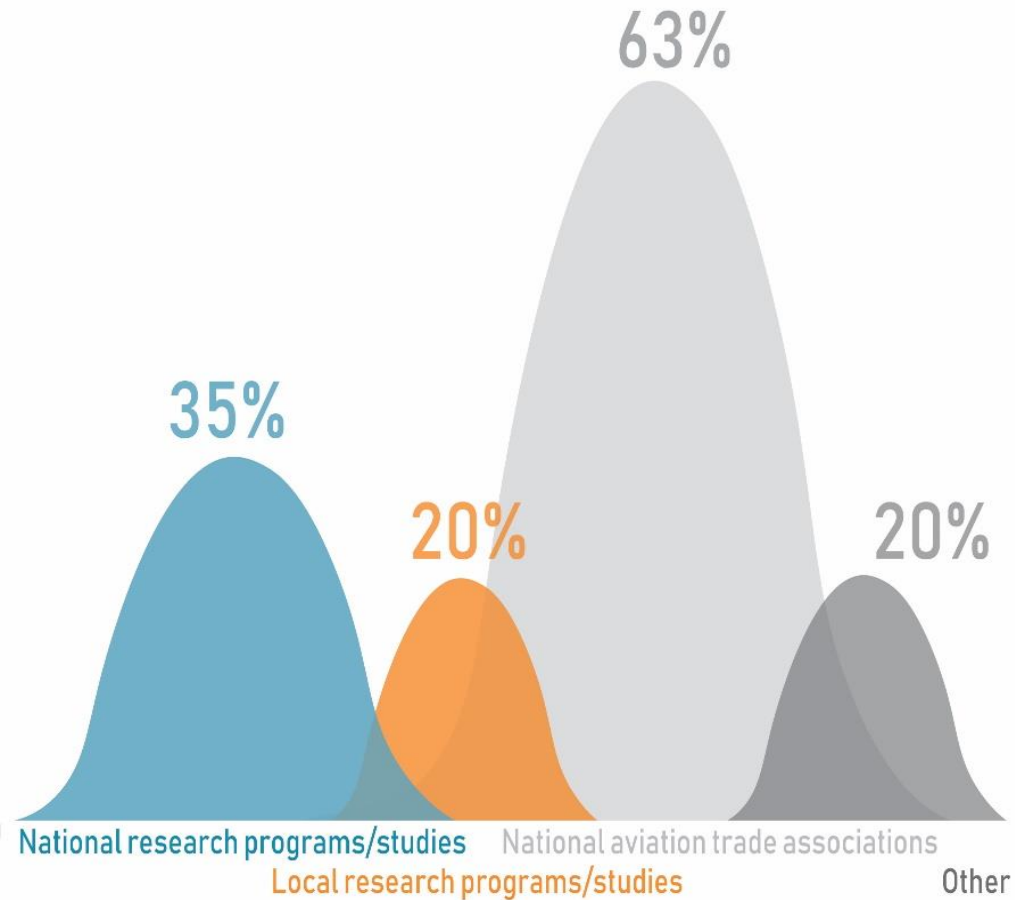
- 72% of airport respondents report having an FAA-accepted Noise Exposure Map (NEM) and FAA-approved Noise Compatibility Program (NCP), including MSP.



Latest year of FAA Part 150 approval by decade



Participation in Research Groups, Aviation Trade Associations, etc.



- 80% of airport respondents, including MSP, participate in research programs/studies concerning aircraft noise (e.g., ACRP, ASCENT) and/or national aviation trade associations that conduct research on or advocate for noise issues (e.g., ACI, AAAE).

Participation in research groups and trade associations



Conclusions and Findings

Program Management and Innovative Use of Technology Measures

- MSP is among the 74% of airports with dedicated noise staff; with five full-time equivalent staff members, MSP represents one of the largest noise groups in North America.
- MSP has the most permanently installed noise monitors of all surveyed airports (39), while the average number of permanent noise monitors in place at respondent airports is 15.
- MSP's NOMS is accessible to the public, including a public portal that allows users to customize reports for a wide range of analyses. MSP has a public complaint portal, which also has customizable reporting capabilities.
- MSP reported the second highest number of overall complaints out of all airport respondents at 149,054. *MSP might consider accepting noise complaints from non-residential addresses/locations.*



Stakeholder Engagement Measures

- MSP has a wide range of stakeholder engagement measures to respond to its very engaged community, and compares favorably against respondent airports.
- One of the questions of greatest interest to the NOC is the level at which noise contours (and other data) are reported. About two thirds of survey respondents indicated that they report noise levels of DNL or CNEL 65 or 65 and up; MSP is one of six airport respondents that reports noise levels of DNL/CNEL 60 and above.
- 39% of respondents have a Fly Quiet Program; only two of these airports report that they have award programs. 67% of these airports report that the Fly Quiet Program has been successful in changing pilot/user behavior. While MSP does not have a formal 'Fly Quiet Program', it does have an extensive pilot education program and noise abatement sensitivity training and tracks compliance with noise abatement measures.

Operational Measures

- MSP has a number of measures that have been developed to address noise from aircraft operations, including: a preferential runway use program and 11 Noise Abatement Procedures (NAPs).
- MSP has both suggested/voluntary and required NAPs, and is among 47% of responding airports that track and report compliance with NAPs.
- MSP prepares monthly reports for the public and the FAA on operational measure compliance.
- *The MAC might consider using real-time alerts to Air Traffic Control (ATC) for non-compliant flights to enhance awareness and compliance further.*

Operational Measures

- MSP is among the more than two thirds of airports that collaborate with the FAA and/or other stakeholders to consider airspace design for noise abatement purposes. These include flight tracks to avoid noise-sensitive areas and Performance Based Navigation (PBN).
- *Ongoing engagement and communication with the FAA's NextGen Office is recommended to track the agency's planning for RNAV departure implementation at MSP.*

Mitigation and Land Use Measures

- 56% of airports reported that they have an active or completed sound insulation program. MSP is the only airport among all respondents to report providing sound insulation to residential homes outside the 65 DNL contour, and reported the highest cost at approximately \$483M.
- One third of respondents reported having a land/property acquisition program or residential relocation program, including MSP. 28% of respondents have disposed of previously acquired noise land, including MSP.
- 89% percent of respondents, including MSP, reported partnering with local jurisdictions concerning noise mitigation and land use control, using a wide range of measures.

Policy and Research Measures

- 72% respondents, including MSP, report having an FAA-accepted Noise Exposure Map and FAA-approved Noise Compatibility Program under FAR Part 150.
- More than three quarters of respondents indicate that they participate in at least one national or local airport noise research group (e.g., Airport Cooperative Research Program or ASCENT) or national aviation trade association (e.g., ACI-NA or AAAE). MSP staff are active in both trade associations, in particular their respective environment committees and noise working groups.

Discussion

ITEM 6

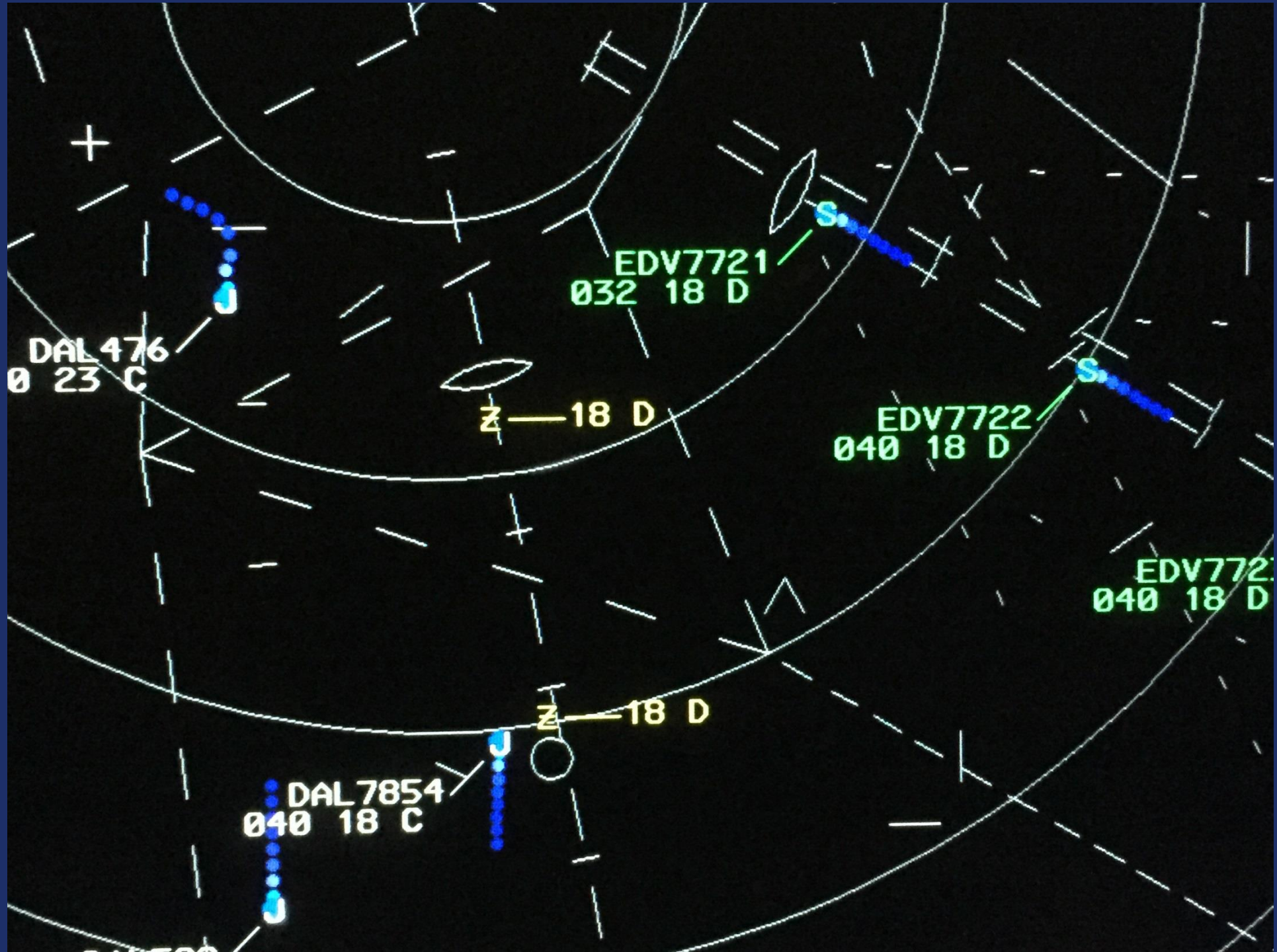
UPDATE ON CONVERGING RUNWAY OPERATIONS AT MSP

KURT MARA, FAA TRAFFIC MANAGEMENT OFFICER

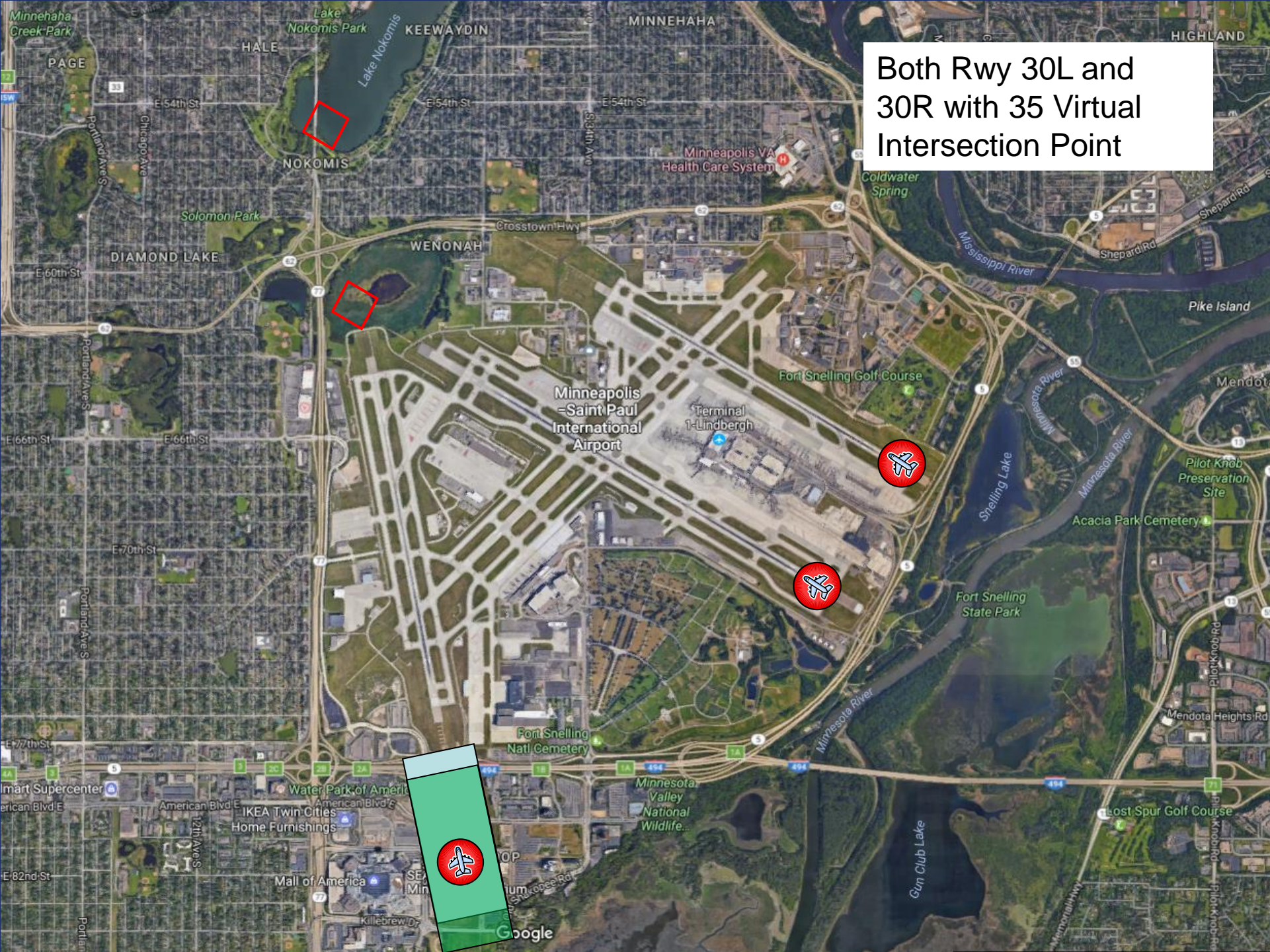


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Both Rwy 30L and 30R with 35 Virtual Intersection Point



ITEM 7

NEW FLIGHTTRACKER DEMO AND PRESENTATION ON IMPROVING NOISE OFFICE DATA THROUGH MACHINE LEARNING



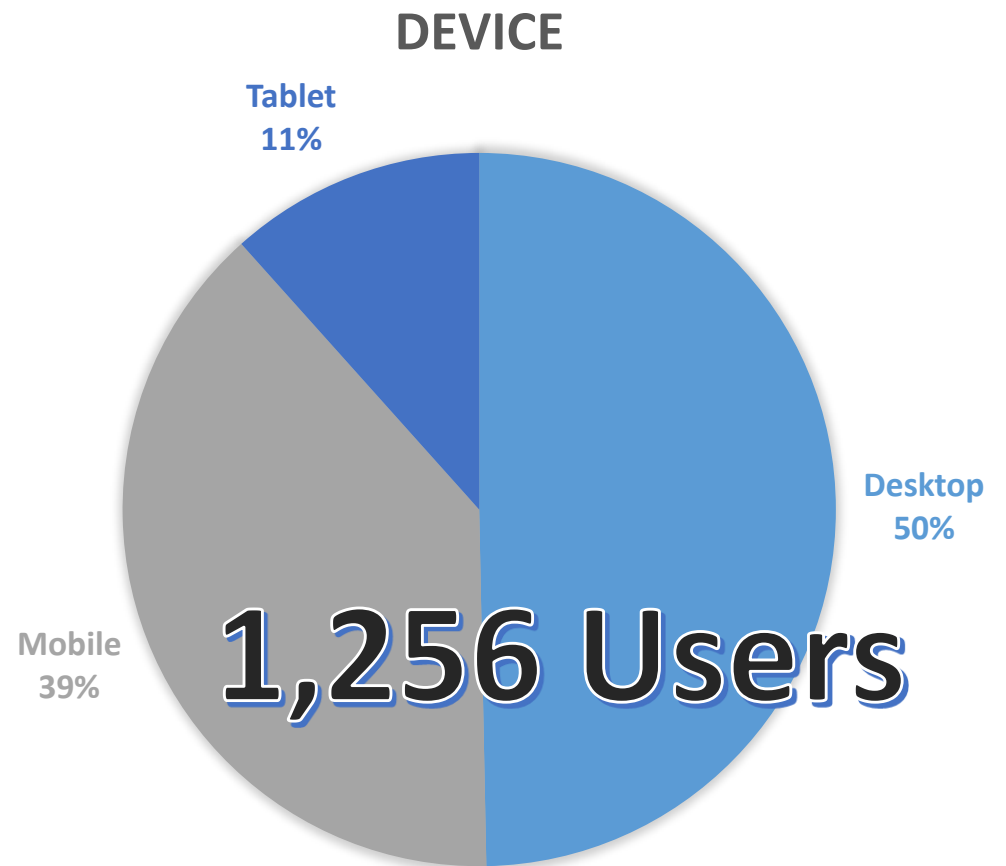
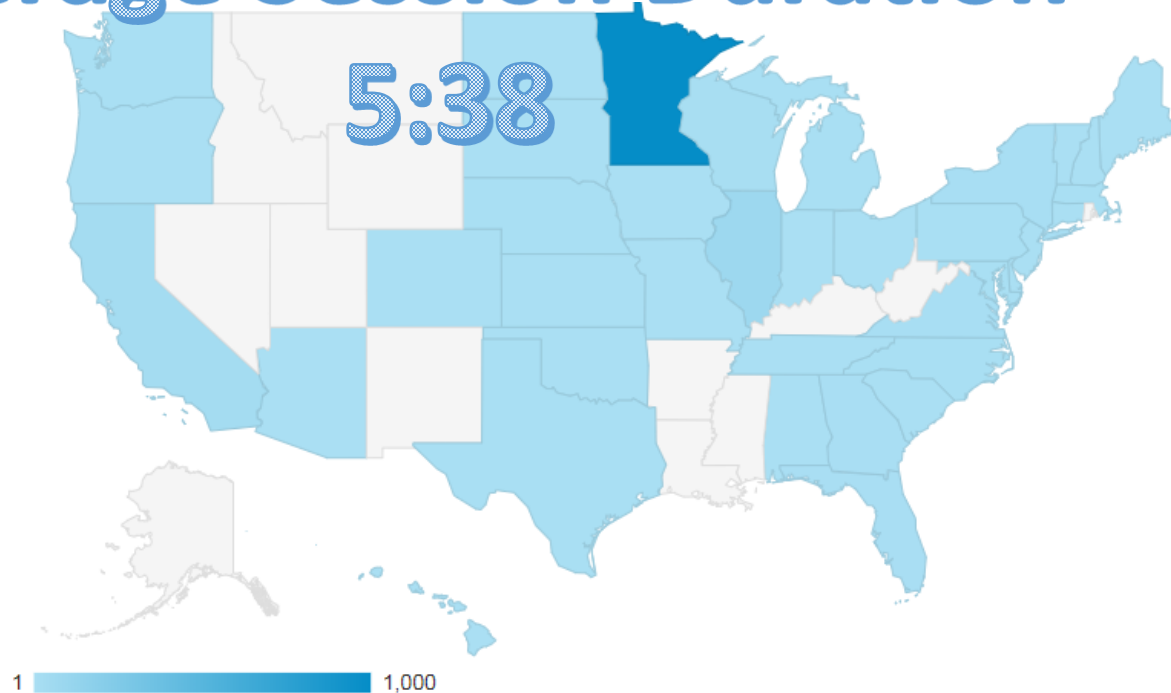
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Item 7: New FlightTracker Demo

- MACNOMS Roadmap
- Soft Launch – June 20th
- Website Announcement – June 27th

Average Session Duration



Improving Noise Office Data through Machine Learning

MAC Aviation Noise Program
Derek Anderson & Nick Heller

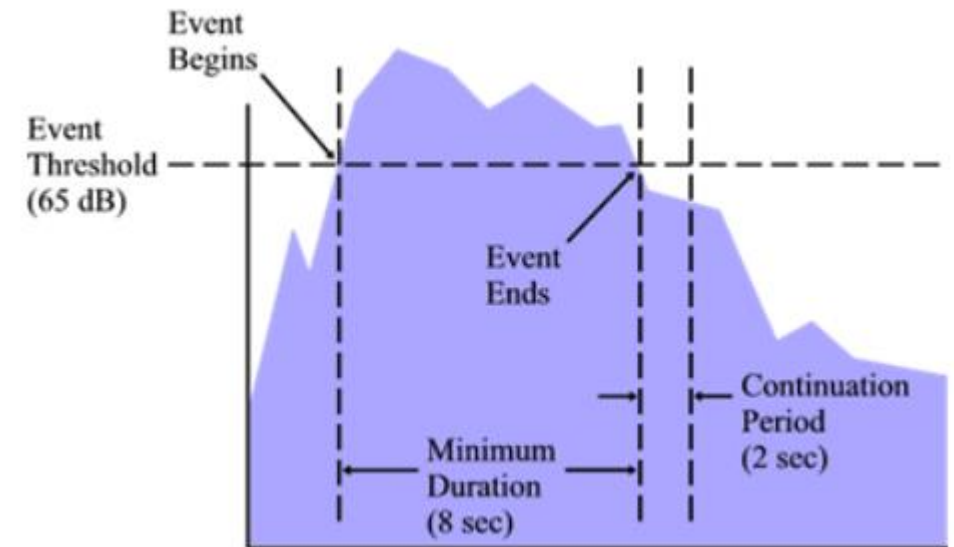


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Sound Data Acquisition System

- Background
 - 39 Sound Monitors / 24x7x365 / Uptime 99.8%
 - 1,300,000+ Annual Sound Events
- "Event" Capture Criteria
 - Any SPL that exceeds 65dBA for a minimum of period of 8 seconds with 2s continuation period.
- Challenges
 - Source of sound is unknown
 - Long sounds events
 - Concurrent events (one or more of either community or aircraft sounds together)
 - Emulation (community or aircraft that look like the other)

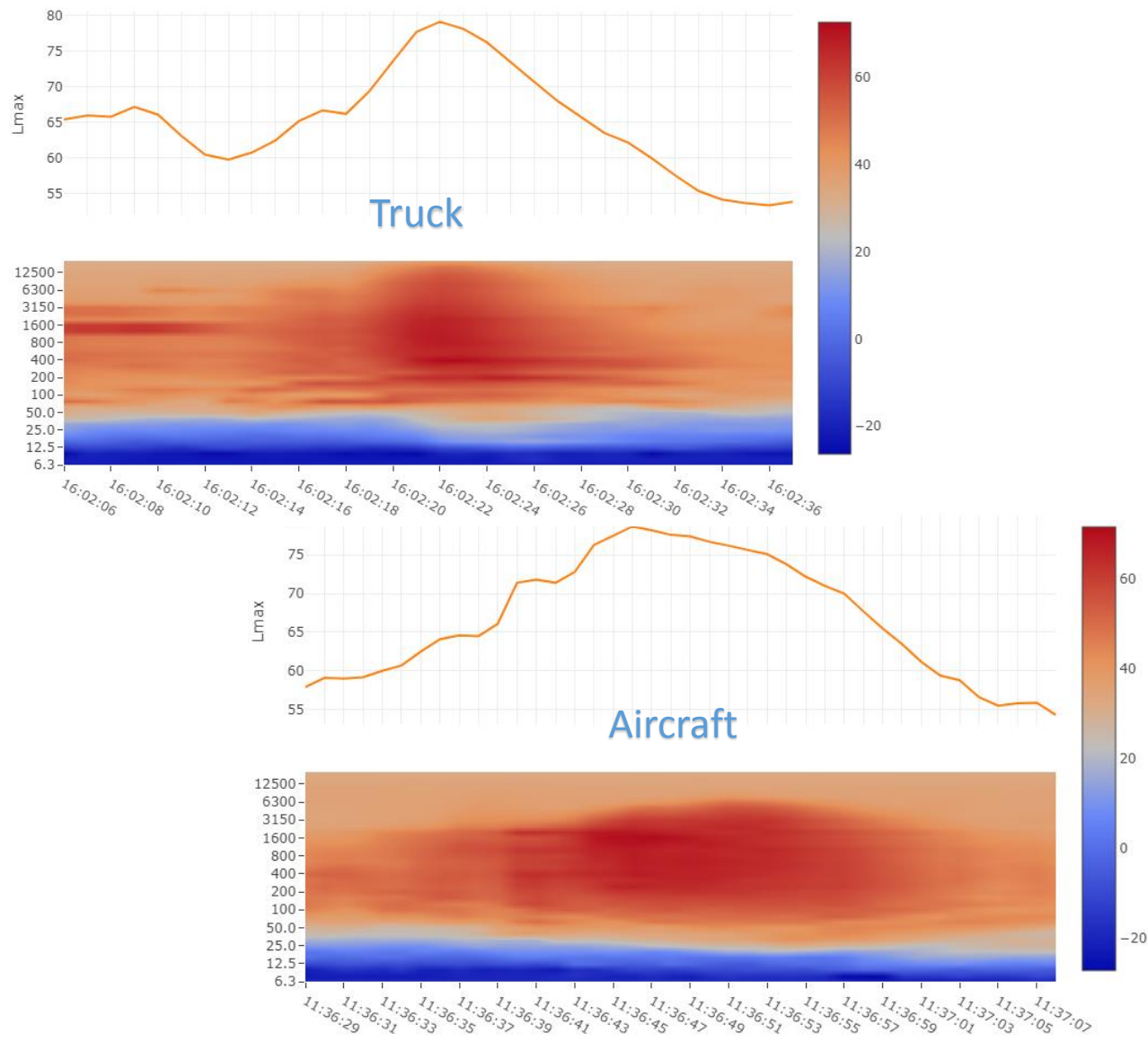


Sound/Operations Correlation – "Noise Match"

- Goal: Determine which sound events are caused by aircraft
- Current Process
 - Time & Space Correlation
 - Review
- Challenges:
 - Time intensive / Large majority of matches not reviewed
 - Many false positives
 - Many aircraft included twice



Item 7: Improving Noise Office Data through Machine Learning

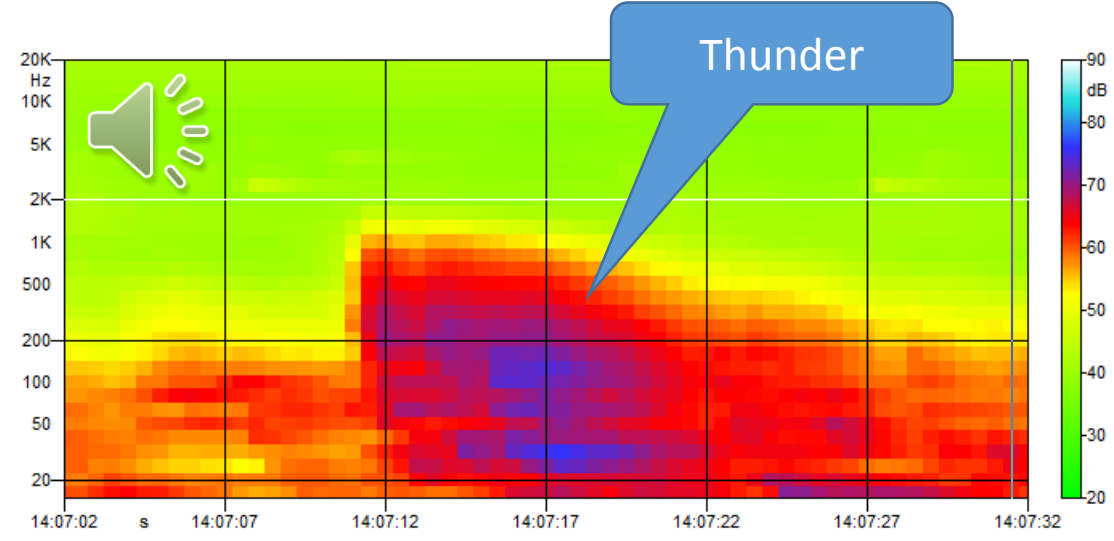
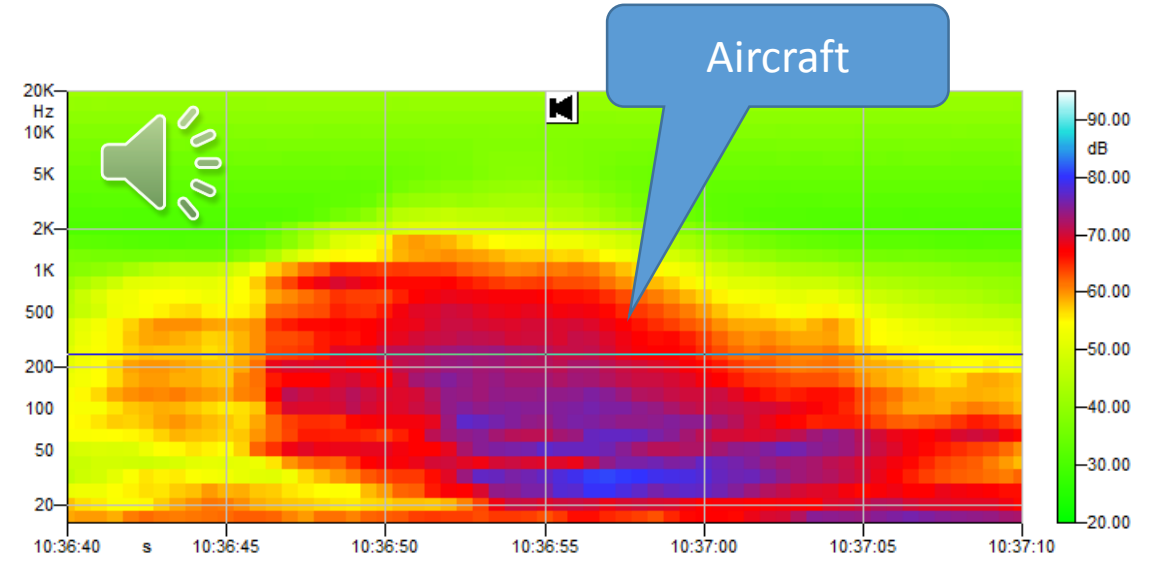
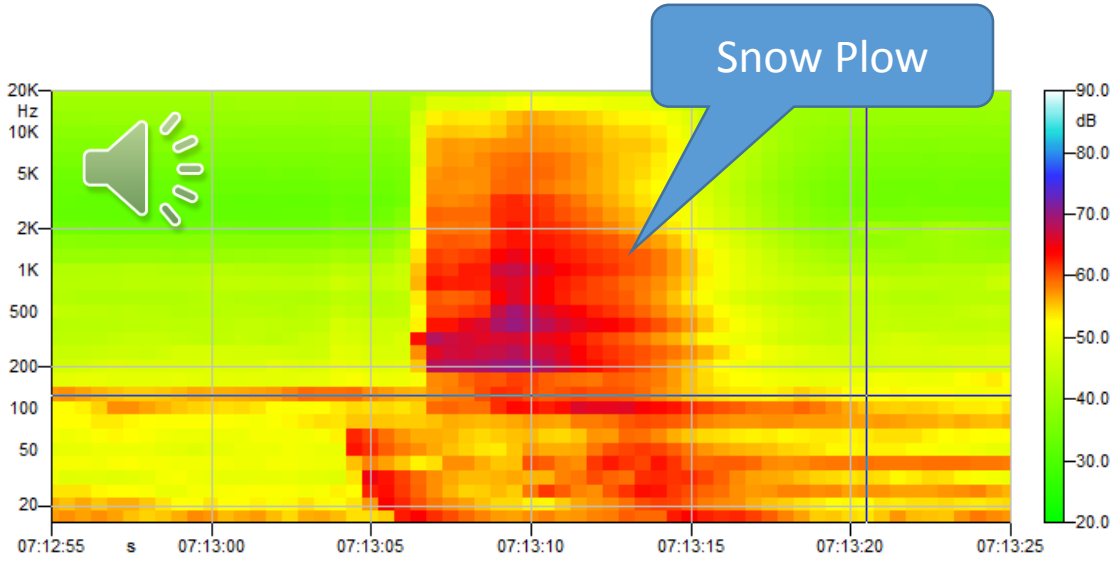


Bigger Data

- SPL vs. Frequency
- System Improvements & Increase in Capabilities
- Data Streams (100 Billion data-points/year)



Item 7: Improving Noise Office Data through Machine Learning



Machine Learning

- Machine Learning
 - Learn from “examples” rather than logically “programed” / Predict
 - More Productive & Efficient
 - Potential to solve existing challenges and limitations
- Immediate Goals:
 - Independent and automatic process for the classification of recorded sound events (community vs. Aircraft)
 - Modify business process to reduce manual correlation/review
 - Improved the matching process resulting in improved metrics
- Future Goals:
 - Reevaluate the process of using events
 - Transition from "events" to data streams
 - Identify aircraft sounds lower than event threshold
 - Split of co-events (combined events)



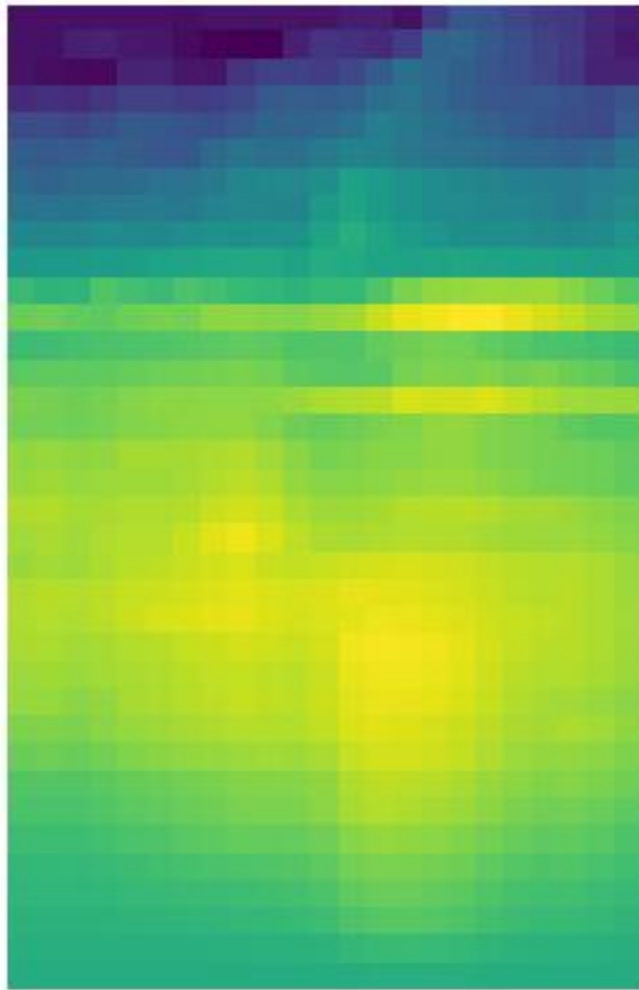
A “Computer Vision” Task



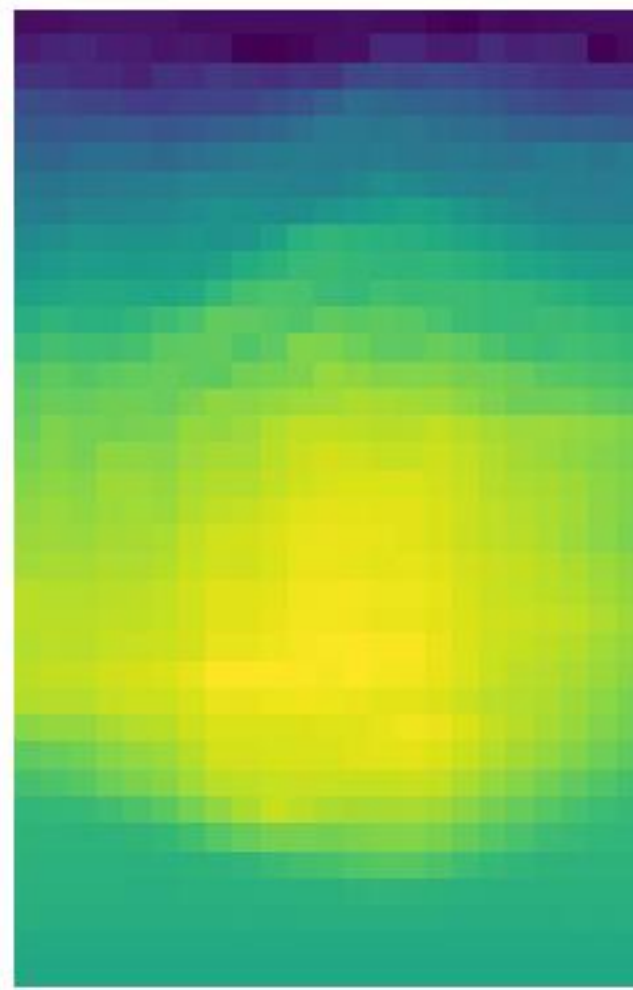
VS



A “Computer Vision” Task



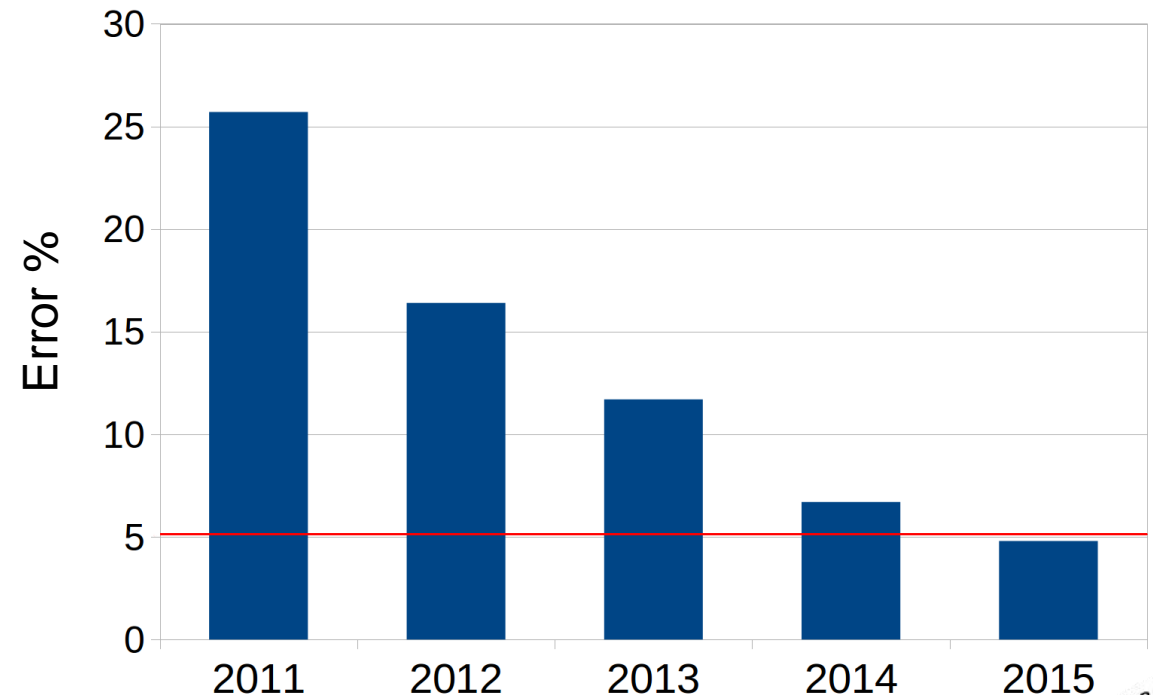
VS



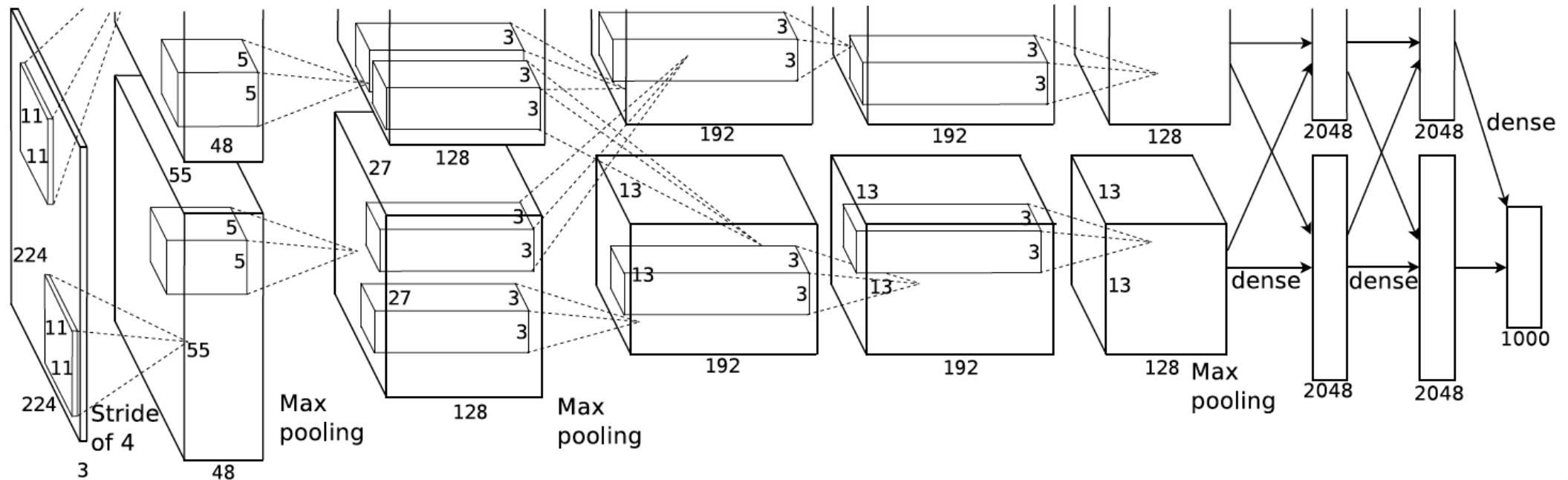
Why Now?

- Deep Neural Networks
- Unprecedented availability of data
- Rapidly decreasing cost of parallel computing

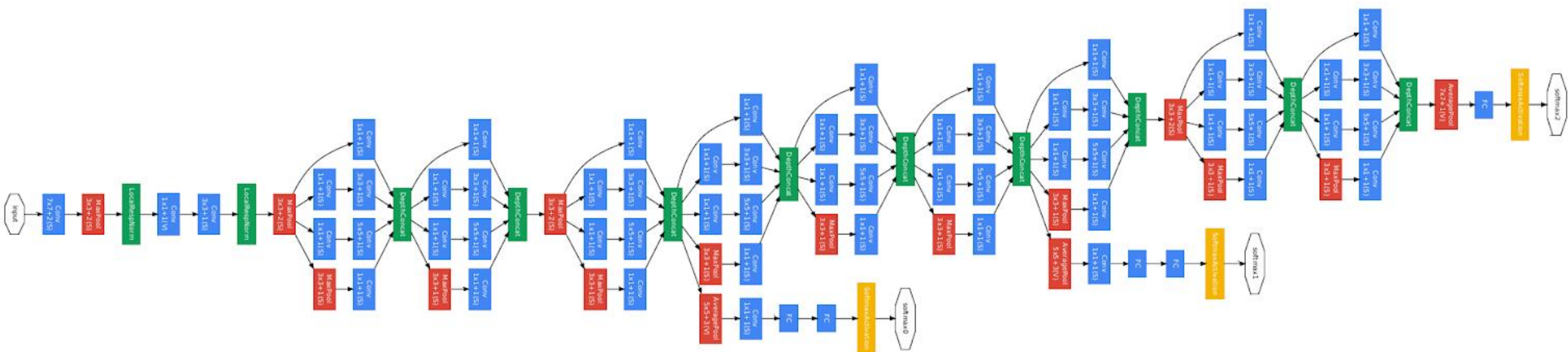
Imagenet ILSVRC Performance with Time



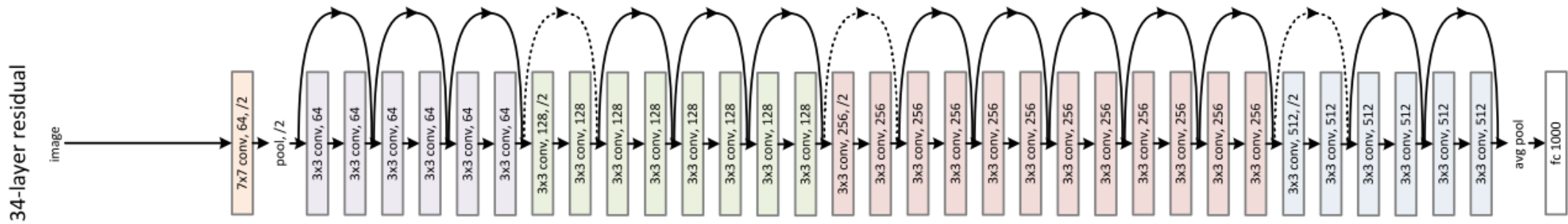
An Early Model (2012)



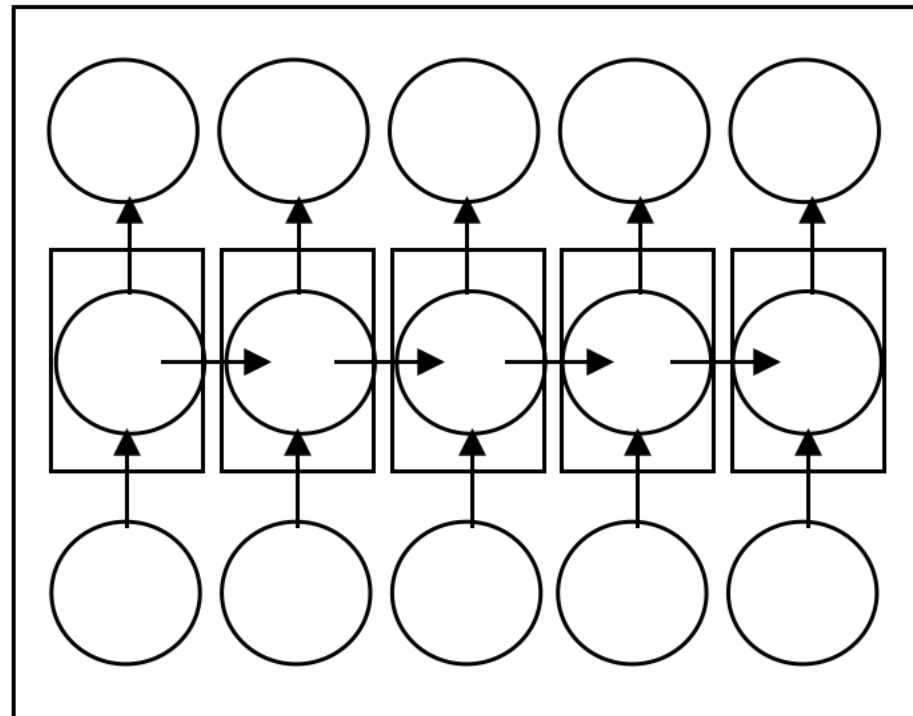
Pushing Deeper...



And Deeper...



Moving Forward: The Continuous Timestream



RNN Example: Generated Shakespeare

[Enter CLEOMENES, with the Lord SAY]

Chamberlain

Let me see your worshipping in my hands.

LUCETTA

I am a sign of me, and sorrow sounds it.

[Enter CAPULET and LADY MACBETH]

What manner of mine is mad, and soon arise?

JULIA

What shall by these things were a secret fool,
That still shall see me with the best and force?

Second Watchman

Ay, but we see them not at home: the strong
and fair of thee,

The seasons are as safe as the time will be a
soul,

That works out of this fearful sore of feather
To tell her with a storm of something storms
That have some men of man is now the subject.

What says the story, well say we have said to
thee,

That shall she not, though that the way of
hearts,

We have seen his service that we may be sad.

[Retains his house]



MAC Results

We measure performance from the standpoint of *detection*

Precision	0.945
Recall	0.956
F1-Score	0.950



ITEM 8

REVIEW OF THE SUMMER LISTENING SESSION



NOISE OVERSIGHT COMMITTEE
JULY 18, 2018



Item 8: Review of the Summer Listening Session

On July 17, 33 residents attended the Summer Listening Session at the Richfield City Hall.

The attendees were from Bloomington, Eagan, Edina, Minneapolis, and Richfield.

The meeting was also attended by representatives from MAC staff, FAA air traffic, NOC members, and Edina City Staff.

MAC staff opened with an introduction and demo of the FlightTracker application. Slides are available at:

www.macnoise.com/sites/www.macenvironment.org/files/pdf/20180717_summer.pdf

The open floor conversation focused on:

- The MAC FlightTracker application and underlying data
- Runway 17 departure procedure and flight activity
- Converging Runway Operations
- Noise Abatement Departure Profiles (NADPs)
- Noise reduction from new generation aircraft



NOISE OVERSIGHT COMMITTEE
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ITEM 9

PUBLIC COMMENT PERIOD



NOISE OVERSIGHT COMMITTEE
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ITEM 10 ANNOUNCEMENTS

Eagan Listening Session

Monday, August 27, 2018 @ 7:00 PM

Eagan Community Center

1501 Central Parkway

Eagan, MN 55121

Next NOC Meeting

Wednesday, September 19, 2018 @ 1:30 PM

MAC General Offices



**NOISE OVERSIGHT COMMITTEE
JULY 18, 2018**

