

Saint Paul Downtown Airport



ADVISORY COUNCIL

Regular Meeting

October 18, 2022

DAAC Overview

GOAL:

This Council is formed to further the general welfare of the community and the Saint Paul Downtown Airport - Holman Field, a public airport in the City of Saint Paul, County of Ramsey, State of Minnesota, through minimizing or resolving problems created by the operation of the airport and aircraft.

PURPOSE:

- 1) To advise the Metropolitan Airports Commission (MAC) on future airport use and development.
- 2) To study and evaluate complaints and problems concerning the airport and aircraft operations.
- 3) To propose and promote reasonable and effective methods to minimize or resolve problems arising from and connected with aircraft operations and the airport.
- 4) To disseminate information to the affected communities, neighborhoods and users of the airport.
- 5) To bring information from the affected communities, neighborhoods and users of the airport back to the MAC

Agenda

1. Welcome and Introductions
2. Approval of Meeting Minutes (4/19/2022)
3. Public Comment (up to 3 min. each speaker)
4. Airport Manager Update
5. Tenant Highlight: Holman's Table
6. Aircraft Operations & Noise Complaints Summary and Trend Q3 2022
7. Annual STP Sound Study
8. Member Comments
9. Set Next Meeting (April 18 or May 16, or other)

DAAC Members

Airport User Representatives	Public Representatives	Government Representatives
Glenn Weibel – Chair	Jon Fure – Vice Chair (DC17)	Noel Nix
Colleen Tahnk	Gary Brown (DC4)	Andrew Wall
Tom Rehkamp	Damien Schaab (DC5)	David Napier
Kyle Schmaltz	Gjerry Berquist (DC3)	
Larry Gregg		
David Wagner		
Jon Dietman		
Lane Hinsperger		

Mike Wilson – Technical Advisor

Jennifer Lewis – Meeting Coordinator

Kalae Verdeja - Meeting Secretary

Michele Ross – Manager, MAC Community Relations

Action Item

Approval of Meeting Minutes for DAAC Meeting April 19, 2022



Public Comment

Open to Members of the
Public in Attendance

Please state your name
and address for the
record, and share your
remarks within a
timeframe of 3 minutes



Information Item

Airport Manager Update



Information Item



Tenant Highlight: Holman's Table

Information Item



Aircraft Operations & Noise Complaints Summary & Trend Q3 2022

Aircraft Operations & Noise Complaints

Home

STP

FCM

ANE

MIC

LVN

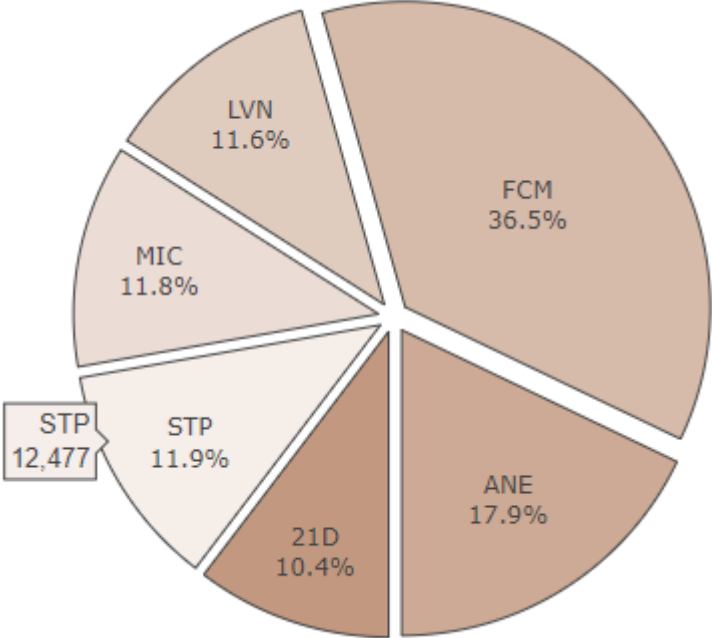
21D

MAC Reliever Interactive Reports

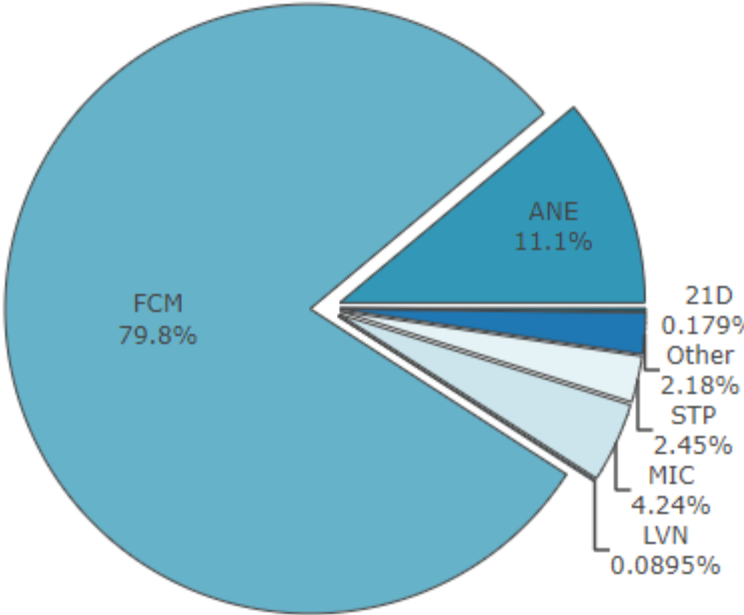


MAC Reliever Airport Comparison

AIRCRAFT OPERATIONS

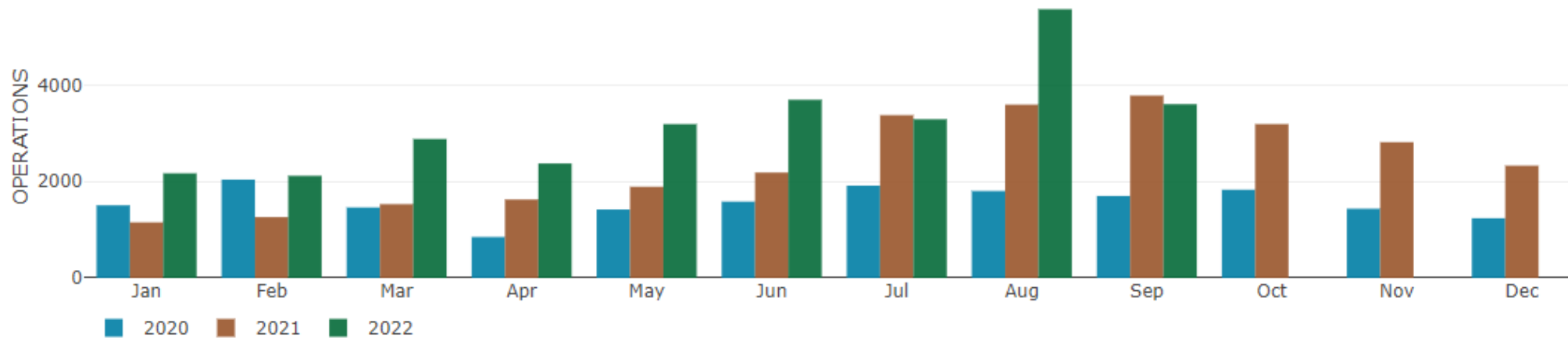


NOISE COMPLAINTS



STP Q3 2022 Aircraft Operations

2022		2021	
12477 OPERATIONS	798 NIGHTTIME OPERATIONS	10761 OPERATIONS	770 NIGHTTIME OPERATIONS

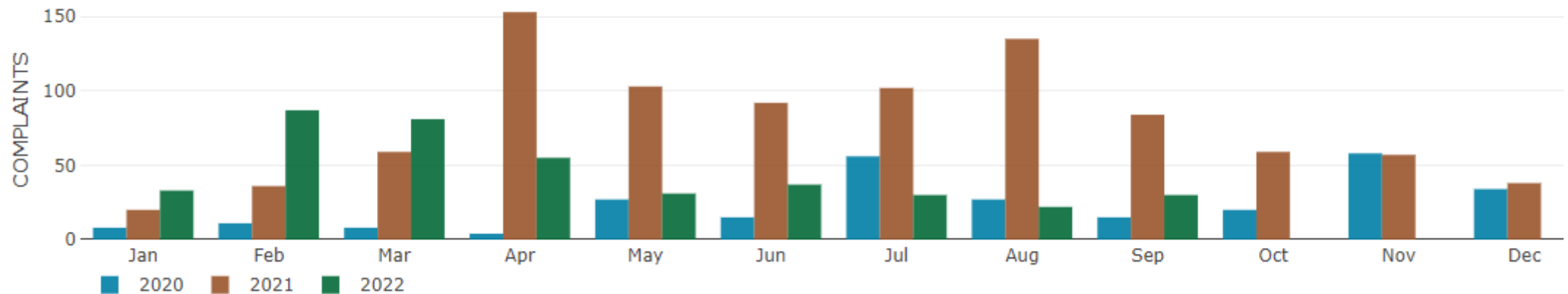


AIRCRAFT TYPE	OPERATIONS	%	COMPLAINTS	%
JET	3,011	24.1 %	39	47.6 %
HELICOPTER	905	7.3 %	7	8.5 %
PISTON	6,449	51.7 %	8	9.8 %
TURBO-PROP	1,451	11.6 %	28	34.1 %
UNKNOWN	661	5.3 %	0	0.0 %
RUN-UP	0	0.0 %	0	0.0 %

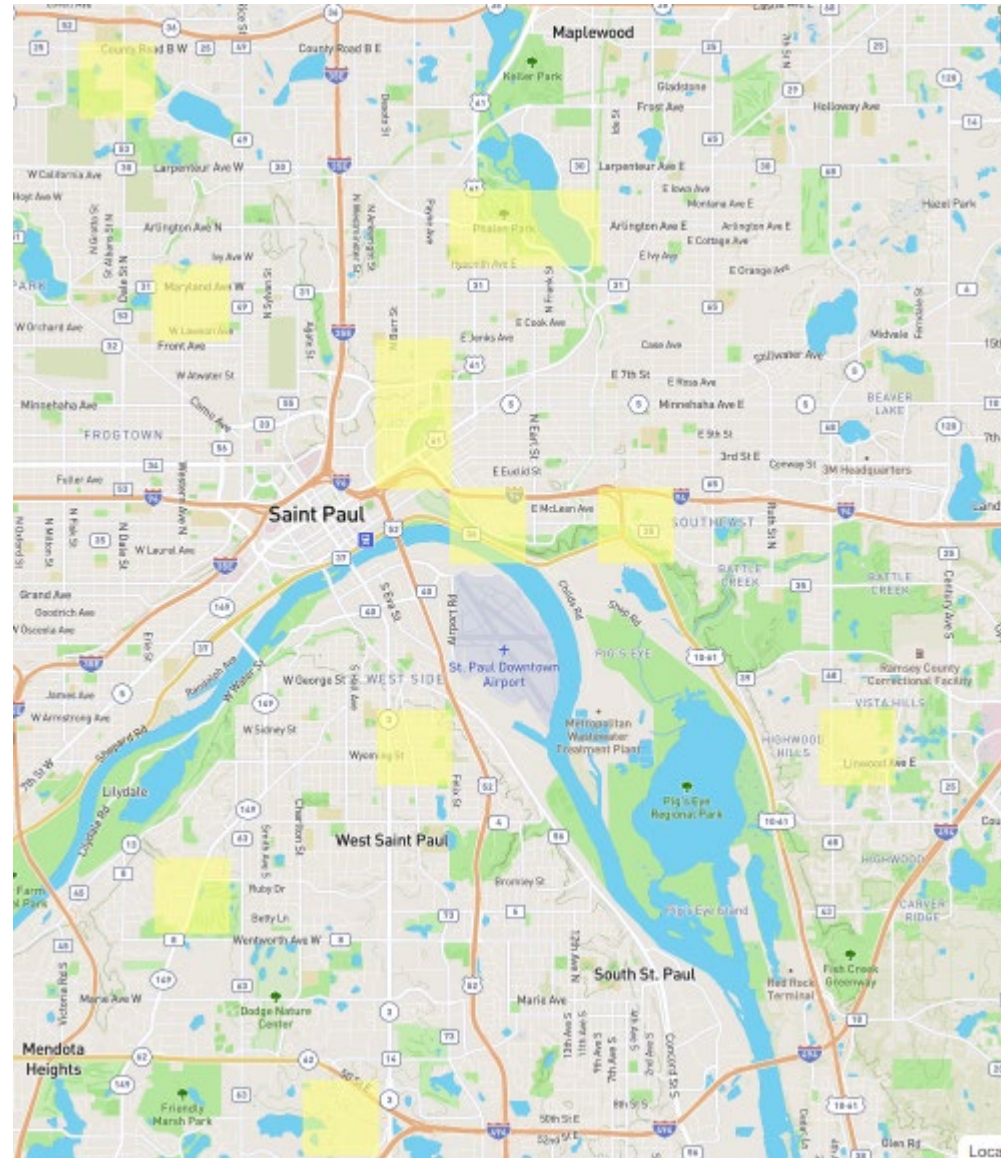
Beginning on July 1, 2021, the MACNOMS methodology for counting operations was updated to more accurately reflect total aircraft departures or arrivals at MAC airports.

STP Q3 2022 Noise Complaints

COMPLAINTS				
2022	82 COMPLAINTS	21 LOCATIONS	24 NIGHTTIME COMPLAINTS	9 NIGHTTIME HOUSEHOLDS
2021	321 COMPLAINTS	57 LOCATIONS	73 NIGHTTIME COMPLAINTS	11 NIGHTTIME HOUSEHOLDS



Noise Complaint | Location Map



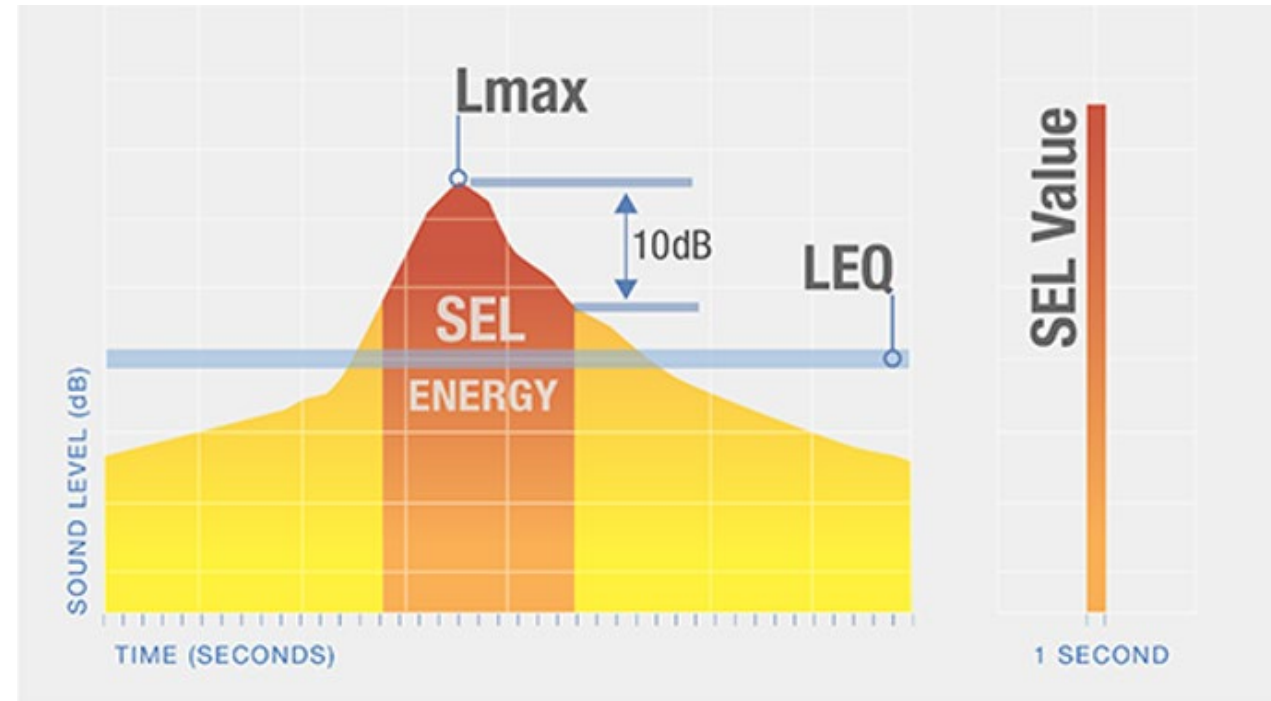
Information Item

STP Sound Study



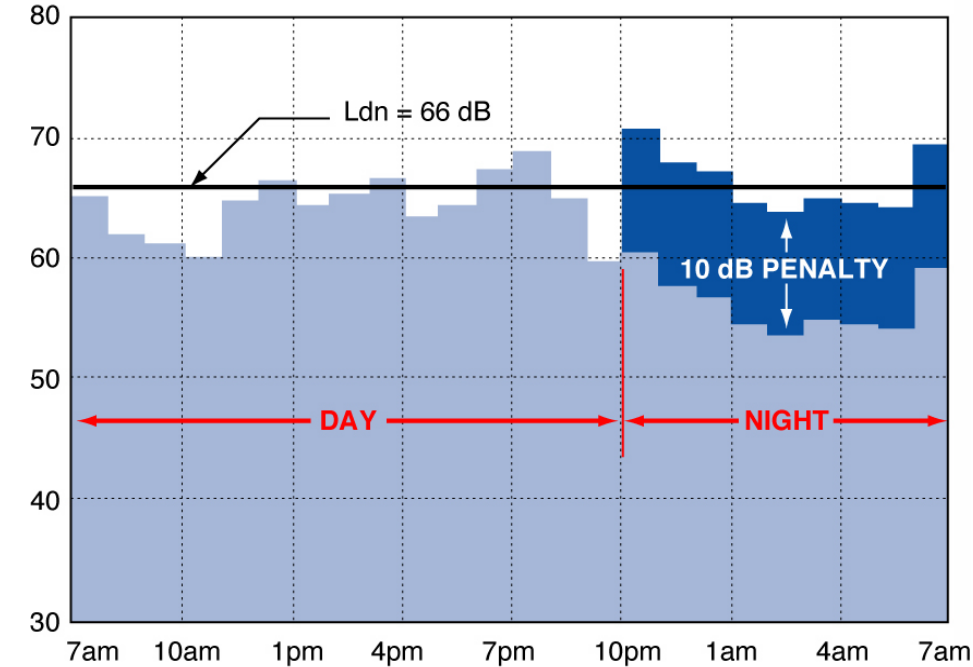
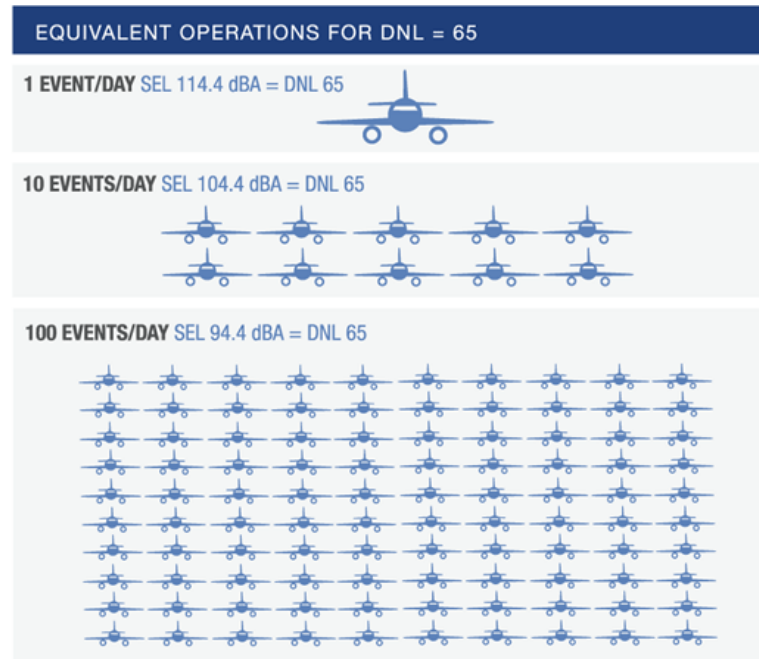
Common Aircraft Noise Metrics

- Maximum Sound Level (L_{max})
 - Because of the variation in level of a sound event, it is often convenient to describe the event with its maximum sound level, abbreviated as L_{max}
 - Accounts only for sound amplitude (A-weighted sound level)
 - Two events may have the same maximum level, but much different exposures
 - (LA_{max} is the notation for A-weighted level)
- Equivalent Sound Level (Leq)
 - The energy average noise level over a specified time period e.g., $Leq(1hr)$ of 80 dB
- Sound Exposure Level (SEL)
 - SEL describes a sound event by compressing and expressing the energy as a 1 second event.
 - Can't compare sound events without using a normalized unit.
- Other Metrics:
 - Time Above a Threshold (TA_n)
 - Number Above a Threshold (NA_n)



Day-Night Average Sound Level (DNL)

- A way to describe the noise dose for a 24-hour period
- Accounts for noise event “noisiness” (SEL)
- Accounts for number of noise events
- Provides an additional weighting factor for nighttime operations



STP Sound Study

August 18-24, 2022

- The purpose of the study is to measure sounds associated with aircraft activity at St. Paul Downtown Airport (STP)
- MAC conducts an annual study in accordance with the commitments of the Supplemental Conditions of Agreement for the airport floodwall
- Each study involves seven consecutive days of field measurements
- Studies have been conducted each year since 2007
- Other studies in August include 2010, 2017, 2020, 2021, 2022
- Modeling data were included in 2022 study



Daily STP Aircraft Activity per Runway

Runway	Thurs. Aug 18	Fri. Aug 19	Sat. Aug 20	Sun. Aug 21	Mon. Aug 22	Tues. Aug 23	Wed. Aug 24	Total
STP Arrivals (414)								
9	-	-	13	3	2	-	-	18
13	3	1	4	-	-	1	3	12
14	51	74	3	30	74	116	139	487
27	1	1	2	1	-	1	-	6
31	-	-	8	9	7	-	-	24
32	27	2	77	53	57	2	6	224
STP Departures (420)								
9	2	1	1	5	2	2	-	13
13	3	-	-	4	-	1	4	12
14	49	79	4	30	61	108	151	482
27	1	-	-	-	-	-	-	1
31	-	-	9	1	3	-	-	13
32	27	-	92	51	72	3	6	251
Daily Total	164	158	213	187	278	234	310	1,544

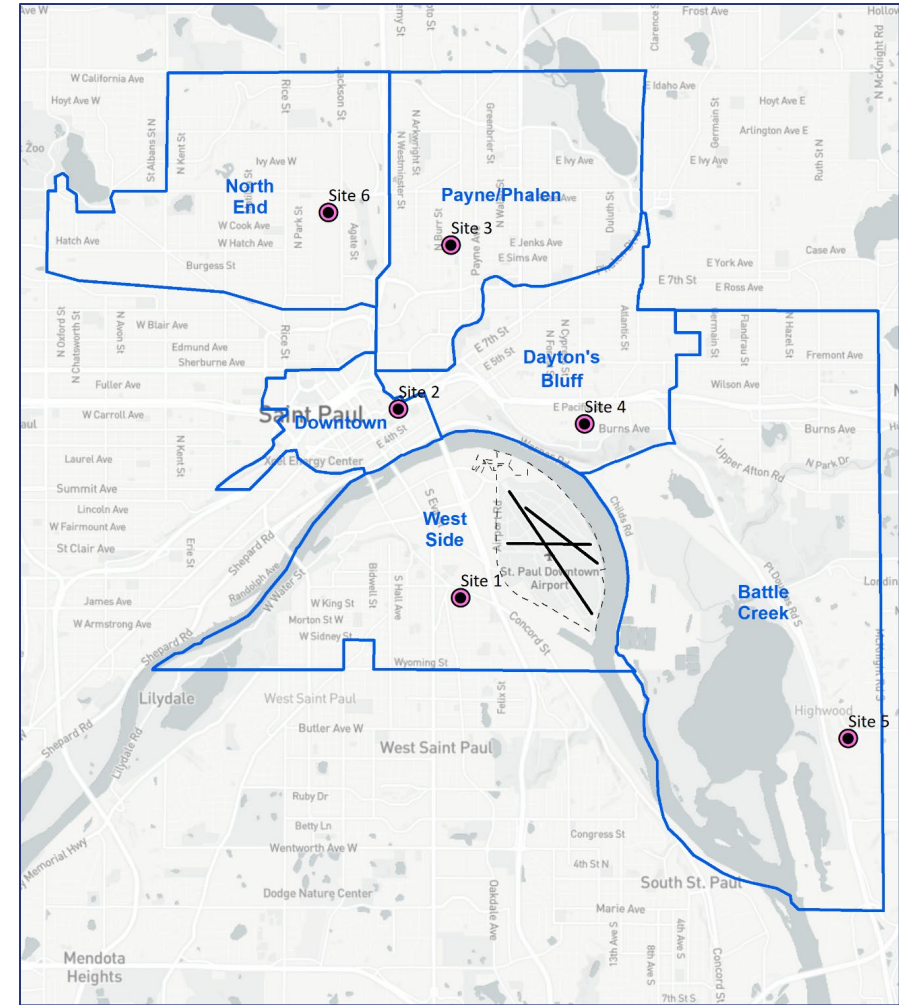
Site 1 – District 3



Site 2 – District 17



Site 3 – District 5



Site 4 – District 4



Site 5 – District 1

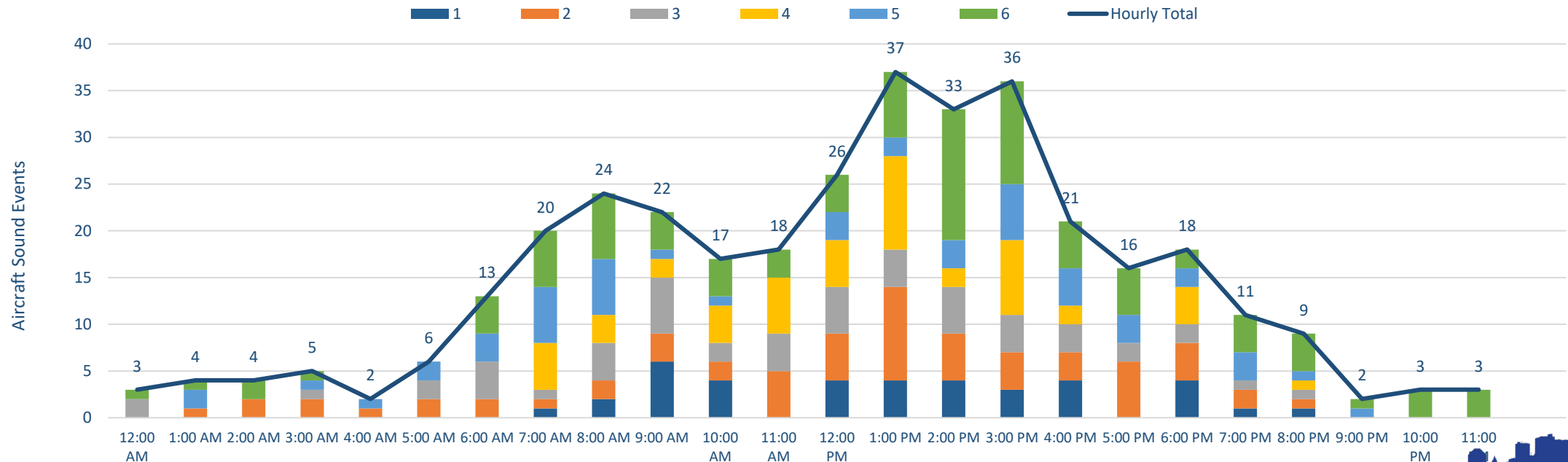


Site 6 – District 6



STP Sound Study Field Measurement Results

Number of Measured Single Event STP Aircraft Sounds								
	Thurs. Aug 18	Fri. Aug 19	Sat. Aug 20	Sun. Aug 21	Mon. Aug 22	Tues. Aug 23	Wed. Aug 24	Site Total
Site 1	9	4	9	4	5	1	6	38
Site 2	8	3	19	11	9	6	7	63
Site 3	12	3	5	11	13	5	4	53
Site 4	4	--	22	7	10	4	5	52
Site 5	9	11	2	4	6	7	12	51
Site 6	15	17	4	10	10	24	13	93
Daily Total	57	38	61	47	53	47	47	350



STP Sound Study Field Measurement Results

Number of Single Event Aircraft Sounds by Level				
Site	# of Events > 65dBA	# of Events > 80dBA	# of Events > 90dBA	# of Events > 100dBA
Aircraft Arrivals				
1	23	0	0	0
2	25	1	0	0
3	22	0	0	0
4	24	2	0	0
5	11	1	0	0
6	80	4	0	0
Arrival Total	185	8	0	0
Aircraft Departures				
1	15	0	0	0
2	38	1	0	0
3	31	2	1	0
4	28	0	0	0
5	40	0	0	0
6	13	0	0	0
Departure Total	165	3	1	0
Total Aircraft Events	350	11	1	0

Miss Mitchell Aircraft

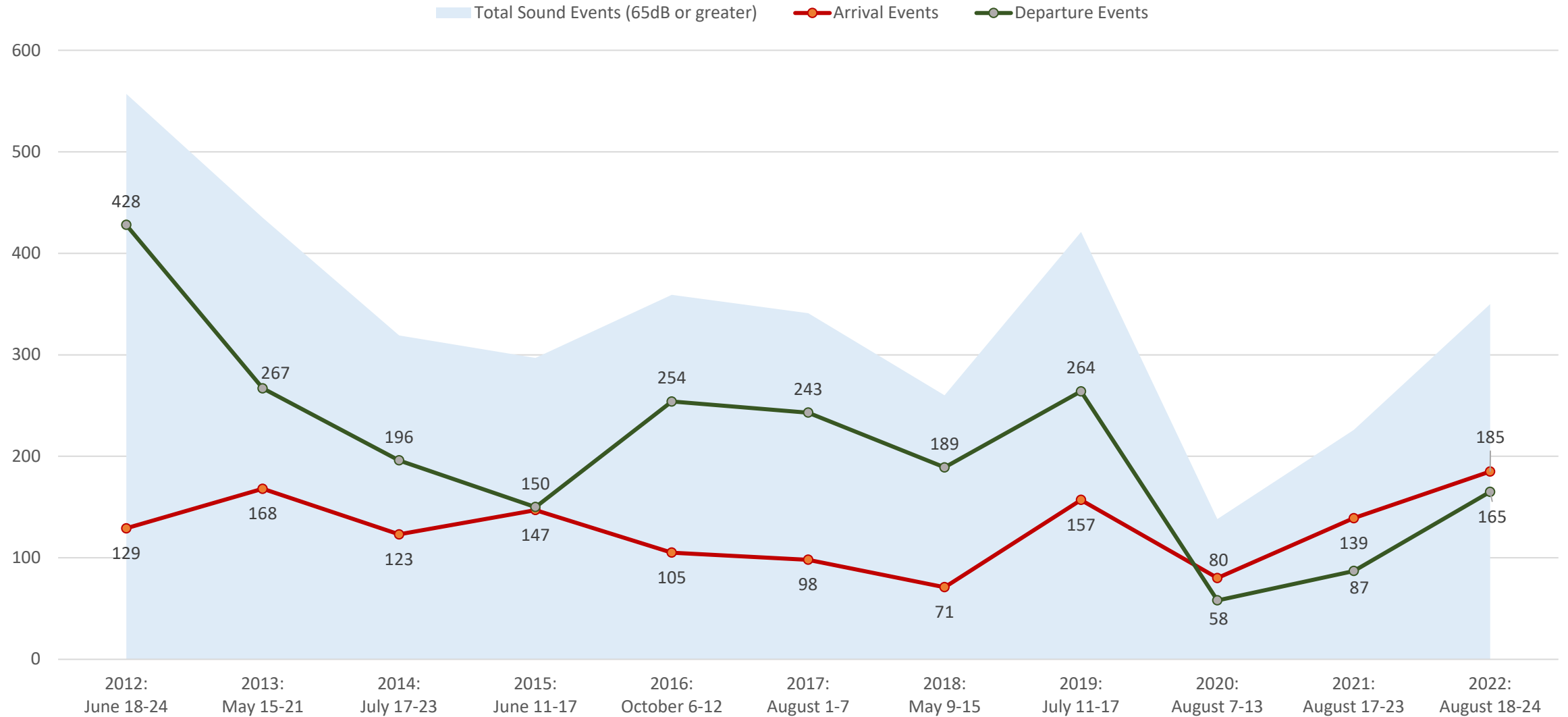


"Miss Mitchell" crew in January 1945
TSGT Ray Ostle is pictured in back row (right)

Photo courtesy of Mike Kaszuba

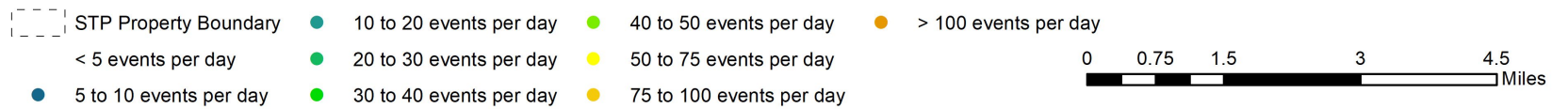
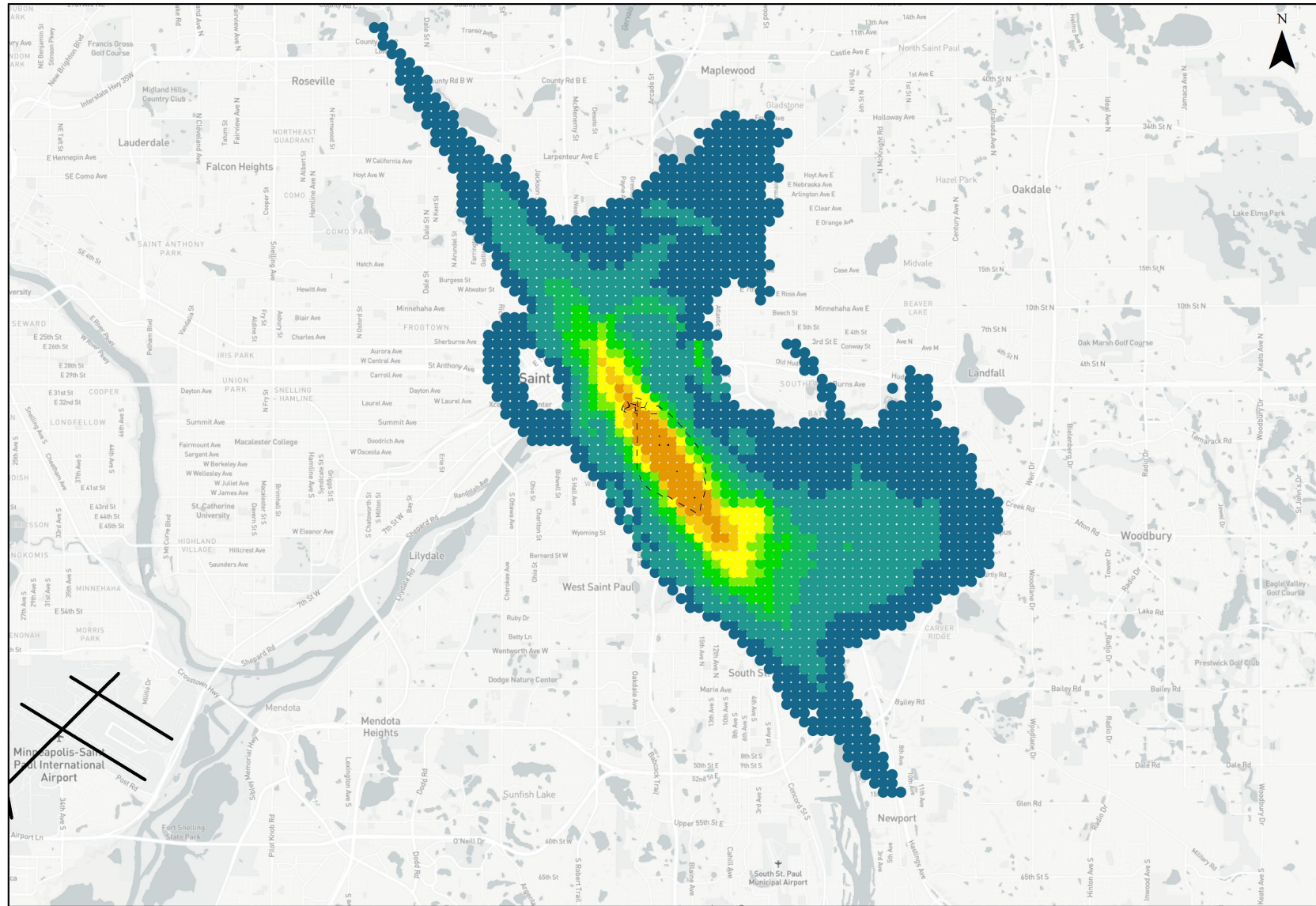
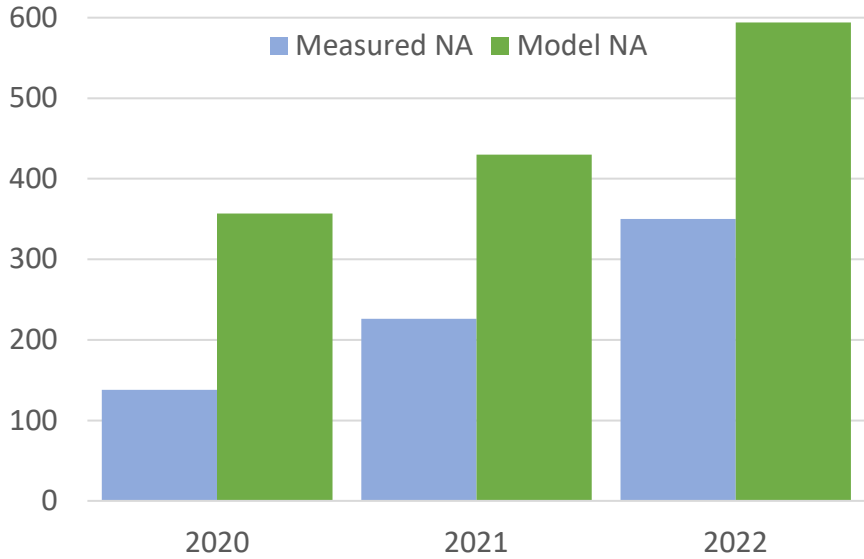


STP Sound Study Field Measurement Results



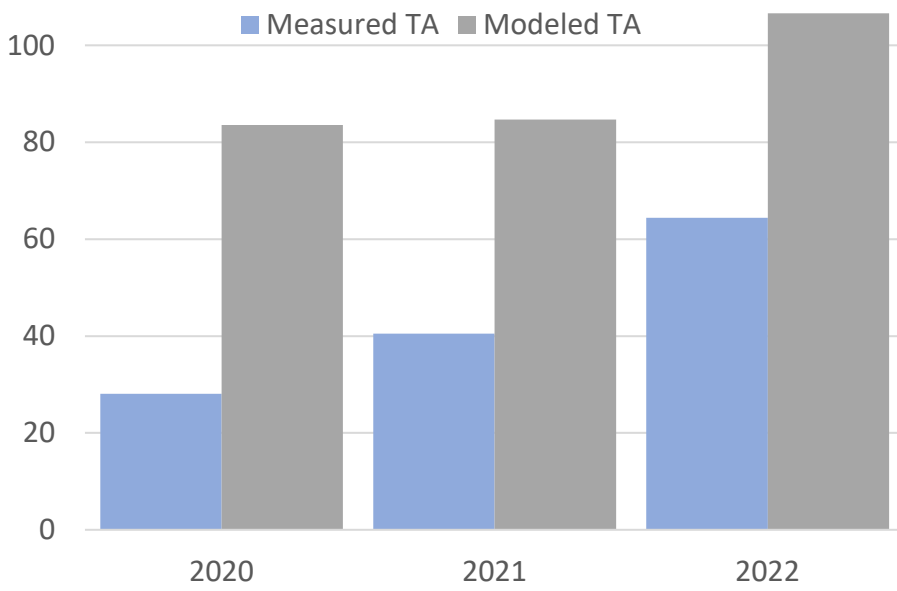
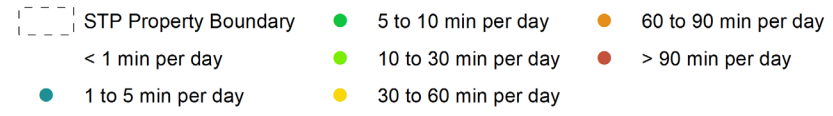
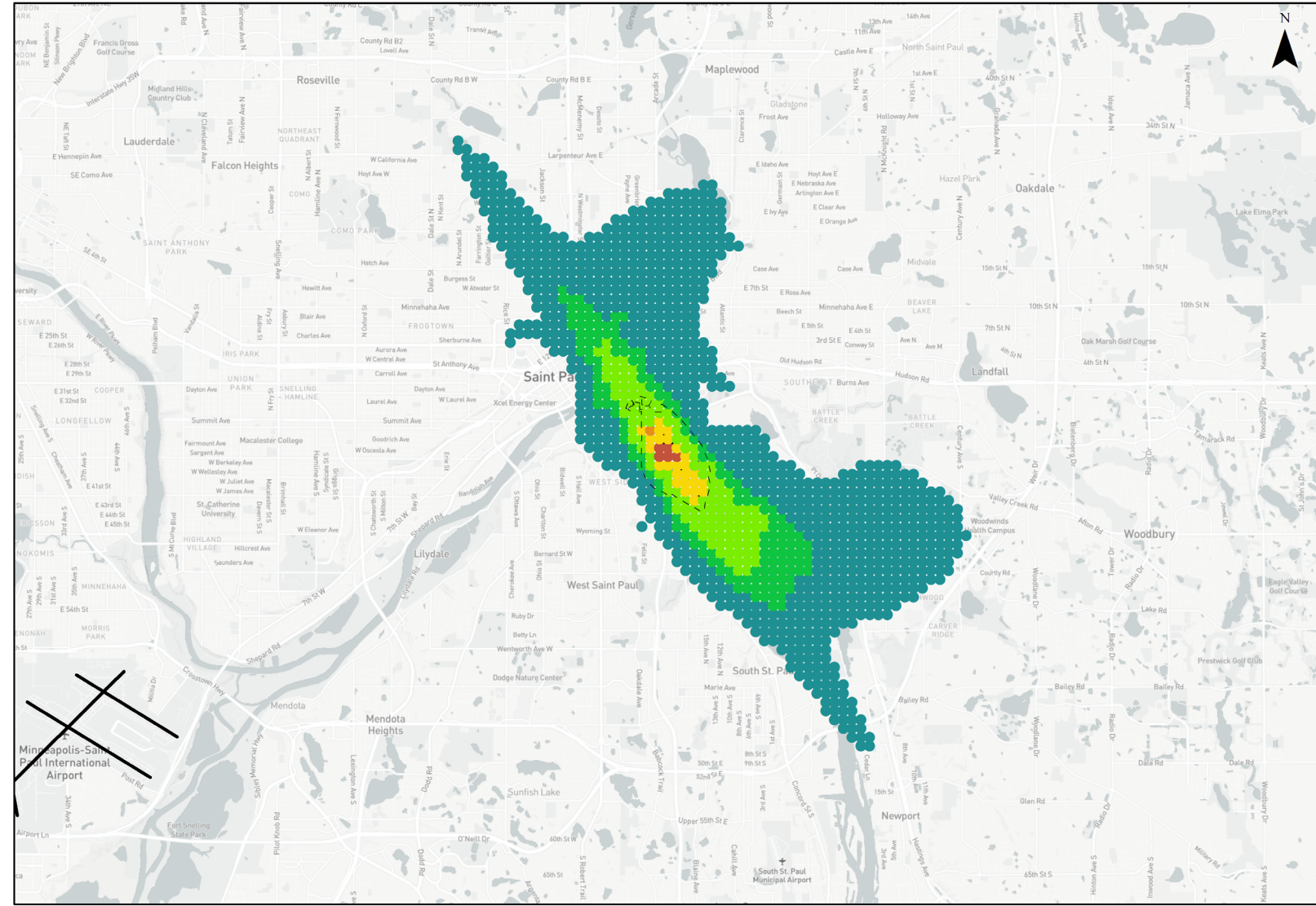
STP Sound Study Modeling Results - Number Above

Measured Vs Modeled Number Above Sound Levels			
Site	N ⁶⁵ Measured	N ⁶⁵ Modeled	Difference
1	38	100	62
2	63	134	71
3	53	77	24
4	52	59	7
5	51	107	56
6	93	117	24

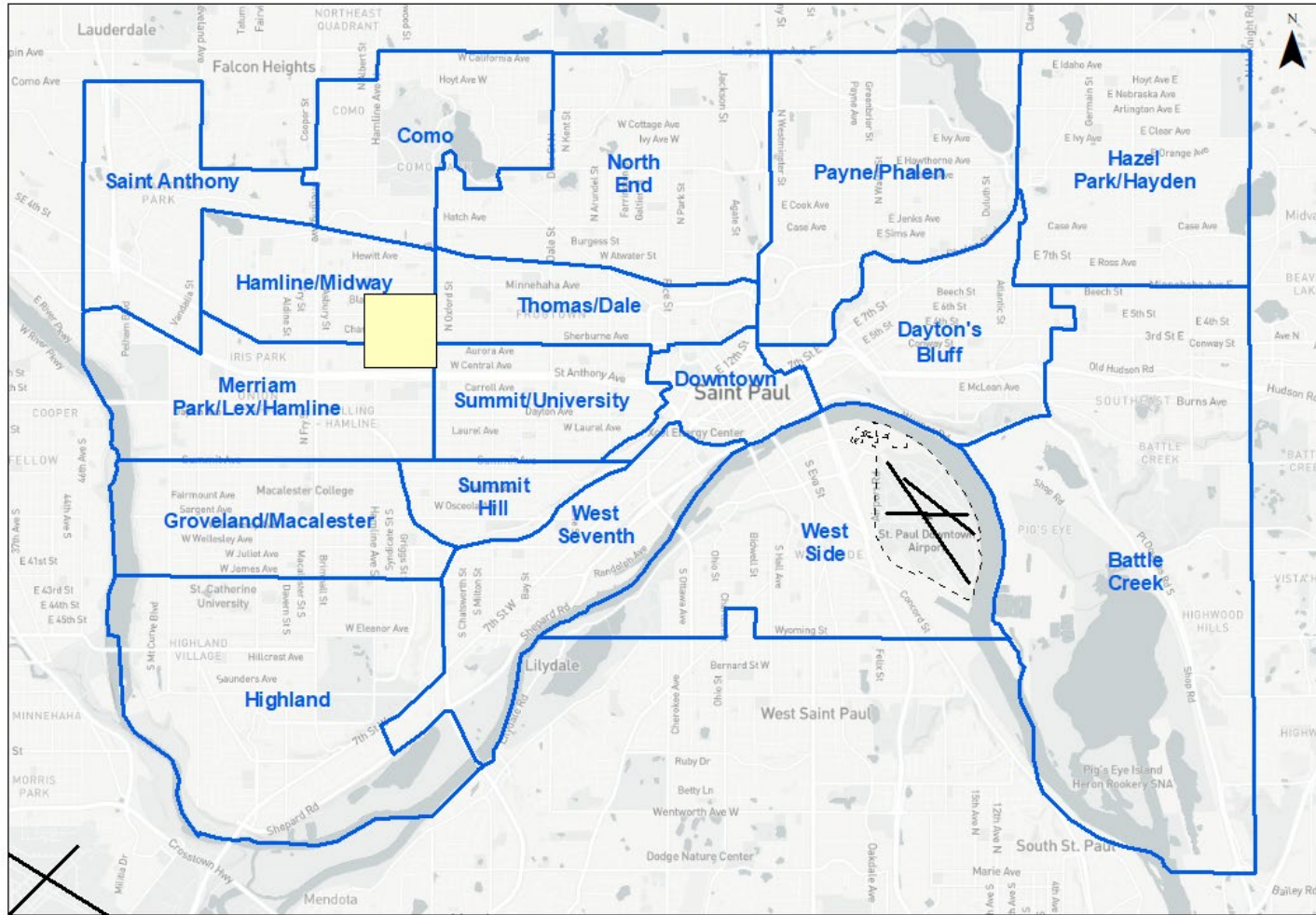


STP Sound Study Modeling Results - Time Above

Measured Vs Modeled Time Above Sound Level			
Site	TA ⁶⁵ Measured (min)	TA ⁶⁵ Modeled (min)	Difference (min)
1	6.6	10.0	3.4
2	13.7	19.2	5.4
3	9.4	16.9	7.5
4	8.7	10.9	2.3
5	8.3	24.7	16.4
6	17.8	25.1	7.3



STP Sound Study -Complaints



Complaints and Operations		
Aircraft Type	Operations	Complaints
Helicopter	72	-
Jet	239	-
Piston	1,026	-
Turbo-Prop	127	5
Unknown	78	-
Total	1,544	5

--- STP Property Boundary

1-3



STP Sound Study

Questions, Discussion and Next Steps

- Questions?
- Study Type, Modeling versus Measuring
- Monitoring Study Timeframe (as applicable)

Member Comments



Meeting Schedule

Set Next Meeting Dates*
(Typically held on the third
Tuesday in May and
October)

Possible Dates:
April 18 or May 16, 2023

