

## Agenda

- 1. Consent
  - 1.1 Approval of November 10, 2021 Meeting Minutes
  - 1.2 Reports
    - 1.2.1 Monthly Operations Reports: November and December 2021
- 2. Public Comment Period
- 3. Business

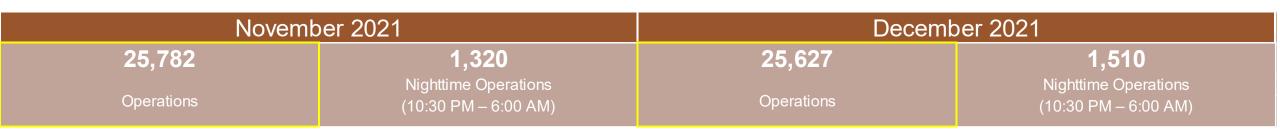
- 4. Information
  - 4.1 VOR Minimum Operational Network
  - 4.2 MSP Air Service Updates
  - 4.3 2021 Complaint Data Assessment
  - 4.4 2021 Fleet Mix and Nighttime Operations Assessment
  - 4.5 Website Updates
- 5. Announcements

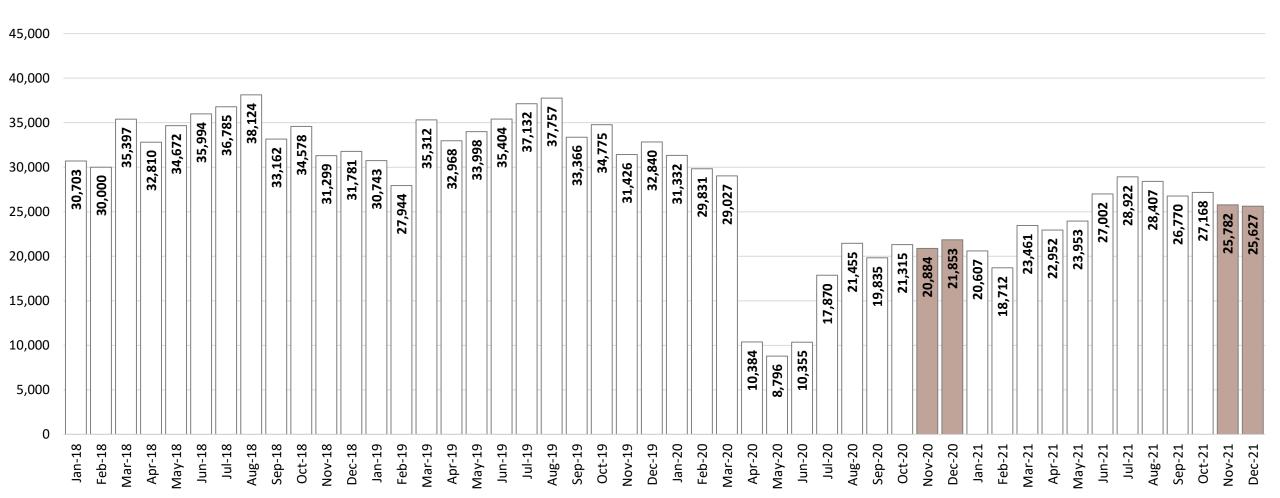
Adjourn



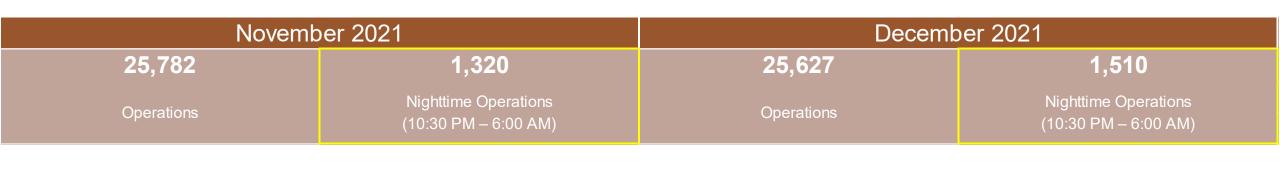


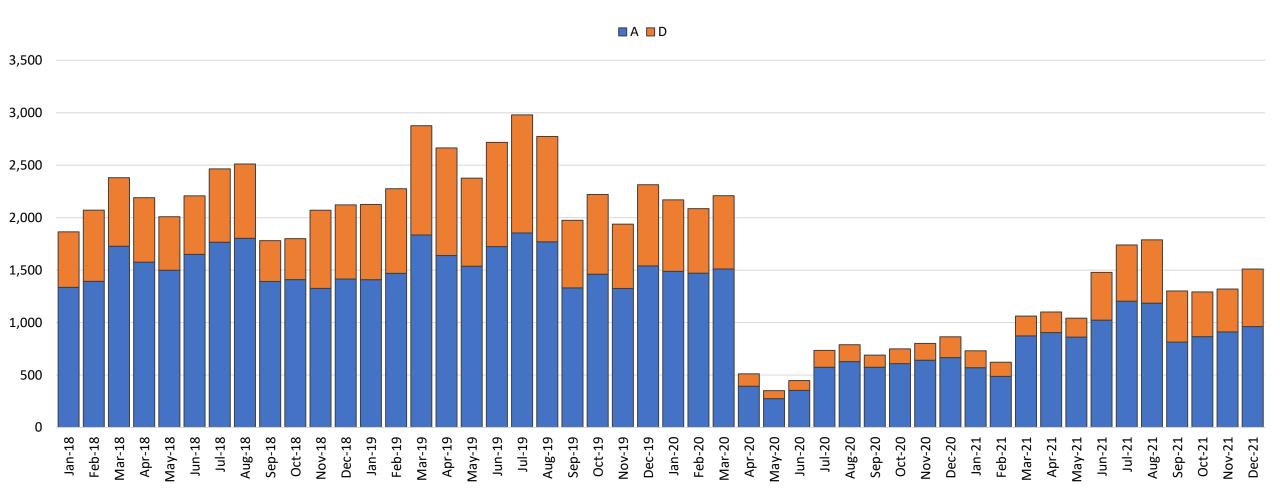
#### MSP OPERATIONS





#### MSP OPERATIONS

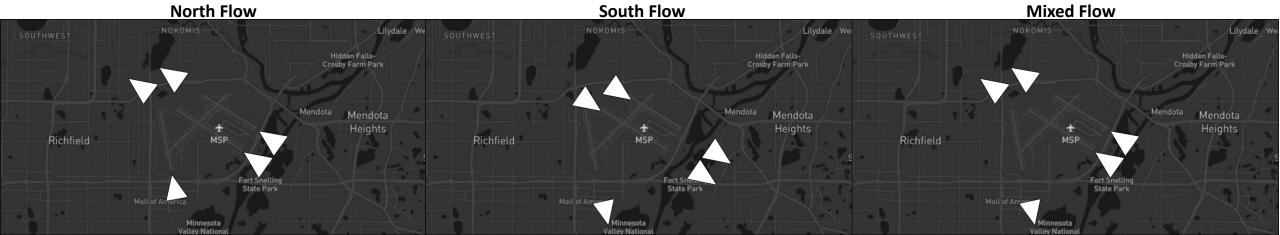


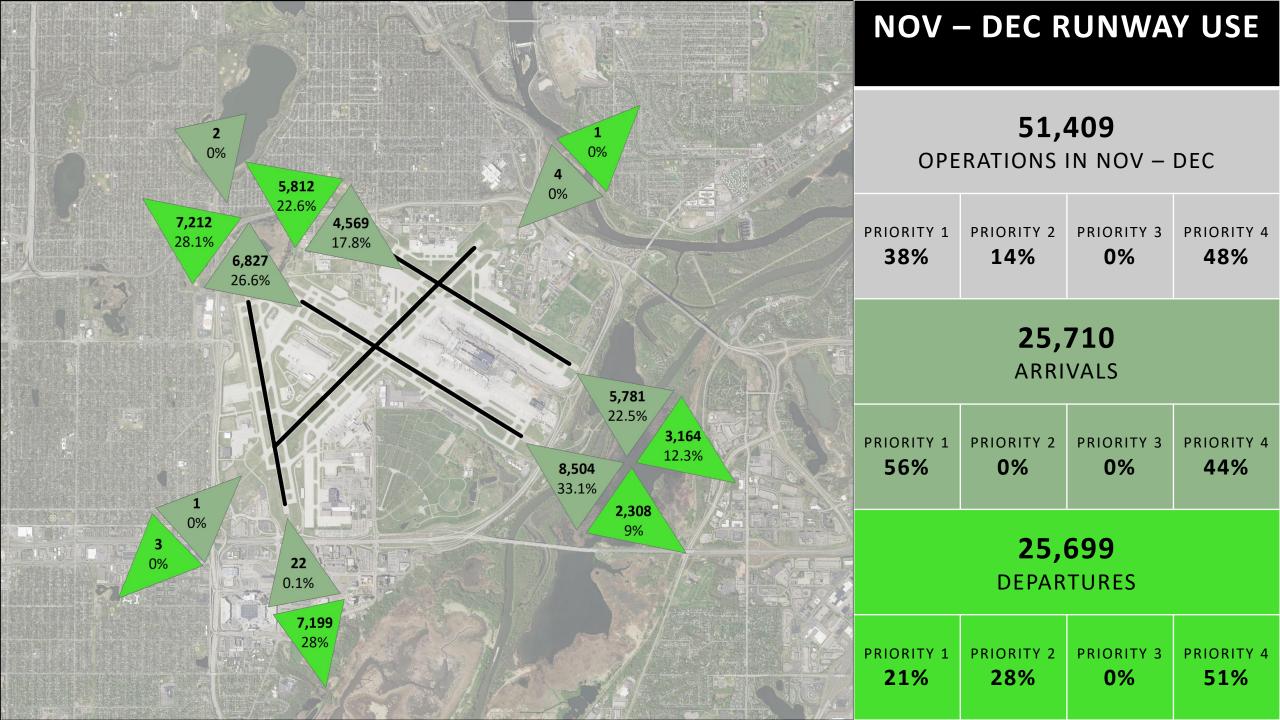


### **RUNWAY USE**

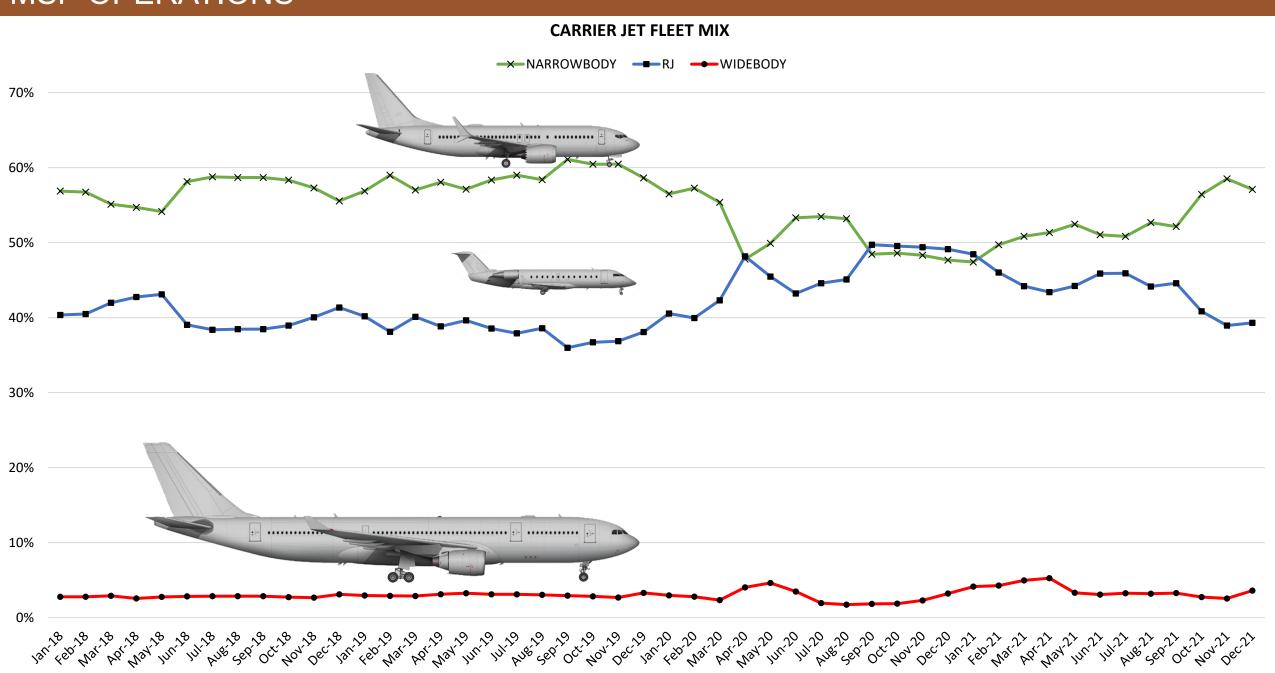
	DEC 2021							
NORTH FLOWS SOUTH FLOWS MIXED FLOWS	6	NORTH FLOWS	SOUTH FLOWS	MIXED FLOWS				
45% 39% 9%		41%	47%	5%				

	2020 JAN – DEC		2021 JAN – DEC							
NORTH FLOWS	SOUTH FLOWS	MIXED FLOWS	NORTH FLOWS	SOUTH FLOWS	MIXED FLOWS					
44%	42%	5%	39%	47%	7%					





### MSP OPERATIONS



### MSP COMPLAINTS

Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18

Aug-18
Sep-18
Oct-18
Nov-18
Jan-19
Feb-19
Mar-19
Apr-19
Jun-19

Jul-18

	Novemb	er 2021			Decemb	er 2021					
COMPI	_AINTS	LOCA	TIONS	COMPLAINTS LOCATIONS							
9,6	552	18	37	8,7	00	157					
Ops per Complaint	New Locations	Average	Median	Ops per Complaint	New Locations	Average	Median				
2.7	9	52	5	2.9	8	55	6				
25,000											
			93 9,592 20,376								
20,000	18,513	74	18,693								
	2,6	73									
		111 15,473	16,087	035		4,404	1				
15,000	13,336	12,307	120	12,341	905	11,667	91 12,691 006 177				
10,799		_ =	10,967		11,105		0,66				
10,000		9,508		9,473			11, 11, 11, 9,652 8,700				
5,834		6,972			7,484	6,035					
					807,4	9					
5,000				2,854	<del>1</del>						

Mar-21 Apr-21 May-21 Jun-21 Jul-21

Feb-21

Sep-21 Oct-21 Nov-21 Dec-21

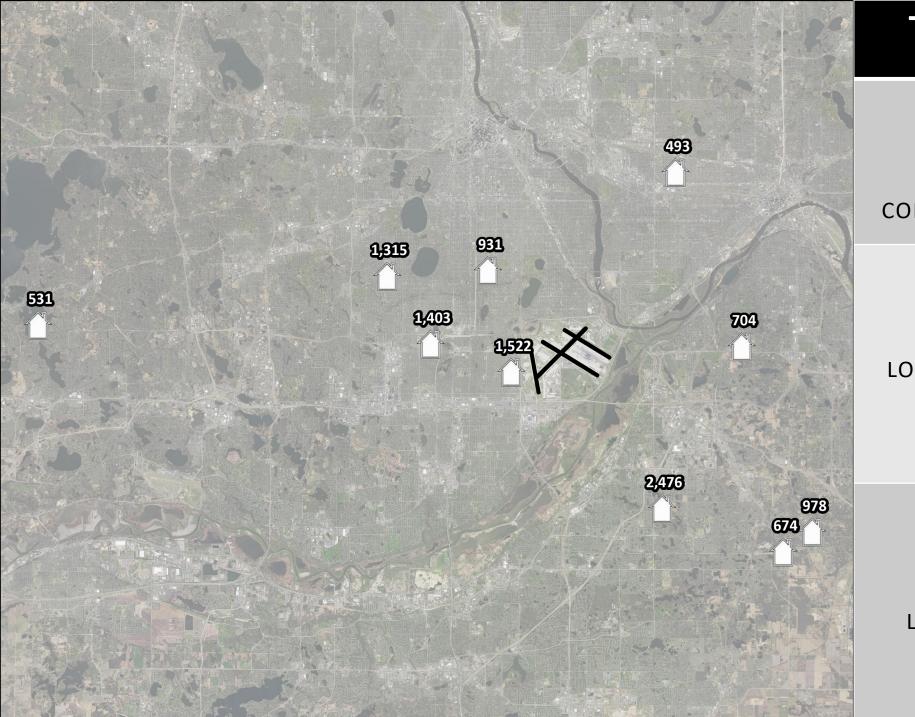
Aug-21

Aug-19 Sep-19 Oct-19 Nov-19 Dec-19 Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21

Jul-19

## MSP COMPLAINTS

	November 2021								December 2021																															
	C	OMP	'LAI	NTS						LC	C	AT	101	<b>VS</b>				COMPLAINTS LOCATION								NS														
		9,	652					187				8,700							157																					
Ops	per Com	plaint	N	lew Lc	ocatio	ons			Aver	age				Me	edia	n		Op	os pe	er Co	omp	lain	it	N	ew	Loca	atio	ns			Av	era	ge				M	edi	an	
	2.7				9				5	2					5					2.9	9					8						<u>55</u>						6		
700																																								
600														$\wedge$																										
500			/		-																																			
400																																								
300 200 100									V									<b>\</b>		$\bigwedge$		<i>/</i>					Nov 18	B3 De	ec-20	*									L .	DV-21 187
																												1	L <b>73</b>										Dec	
0	Jan-18 Feb-18	Apr-18	May-18 Jun-18	Jul-18	Sep-18	Oct-18	Nov-18	Dec-18 Jan-19	Feb-19	Mar-19	Apr-19	May-19	11-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20 Feh-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21 Mar-21	Anr. 21	Apr-21 May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21		



## **TOP 10 LOCATIONS**

FILED

11,027

(60%)

COMPLAINTS DURING NOV & DEC

8 OF 10

LOCATIONS WERE IN THE TOP 10 FOR SEPT – OCT DATA

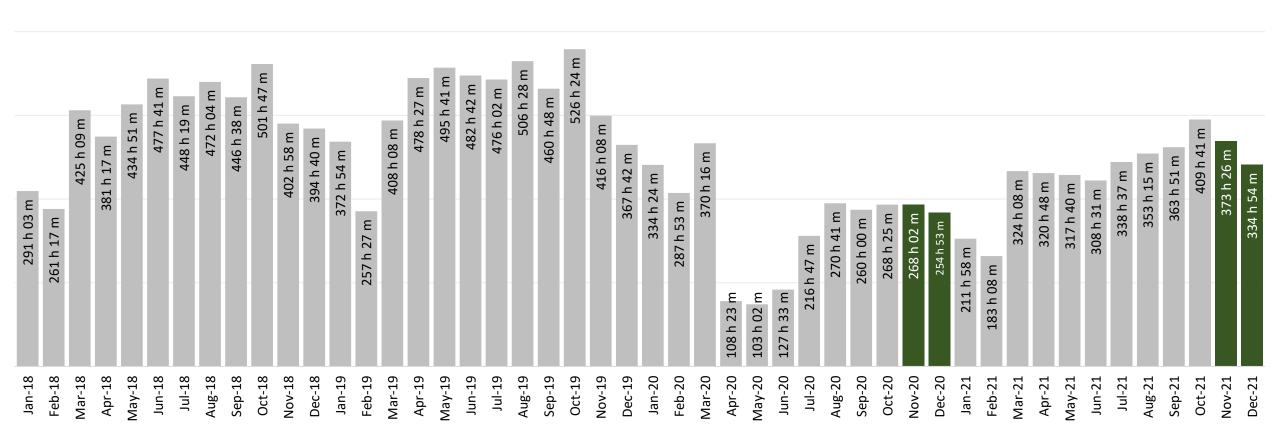
141

(60%)

LOCATIONS FILED 10 OR LESS COMPLAINTS

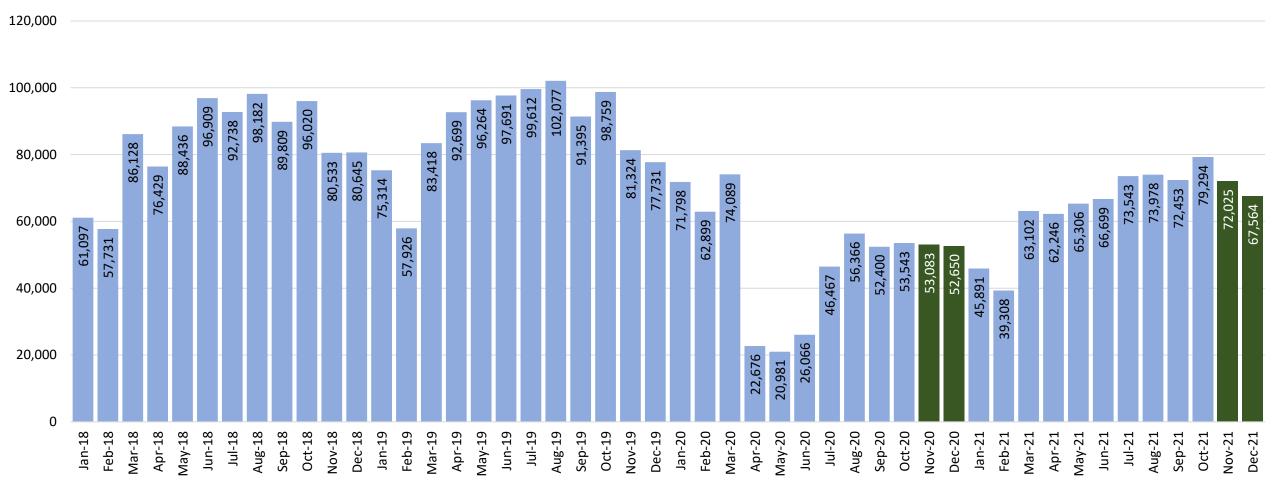
#### **SOUND MONITORING**

	November 2021		December 2021						
Time Above	52	373 h 26 m	Time Above	47	334 h 54 m				
	TA <sup>65</sup> Per Operation	TA <sup>65</sup>	Time Above	TA <sup>65</sup> Per Operation	TA <sup>65</sup>				
Count Above	2.8	72,025	Count Above	2.64	67,564				
Count Above	N <sup>65</sup> Per Operation	N <sup>65</sup>	Count Above	N <sup>65</sup> Per Operation	$N^{65}$				



#### **SOUND MONITORING**

	November 2021		December 2021						
Time Above	52	373 h 26 m	Time Above	47	334 h 54 m				
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Count Above	2.8	72,025	Count Above	2.64	67,564				
Count Above	N <sup>65</sup> Per Operation	N <sup>65</sup>	Count Above	N <sup>65</sup> Per Operation	$N^{65}$				



### NOISE ABATEMENT

Runway 17	99.3%
Corridor	95.7%
<b>Cross Day</b>	21.6%
Cross Night	39.6%

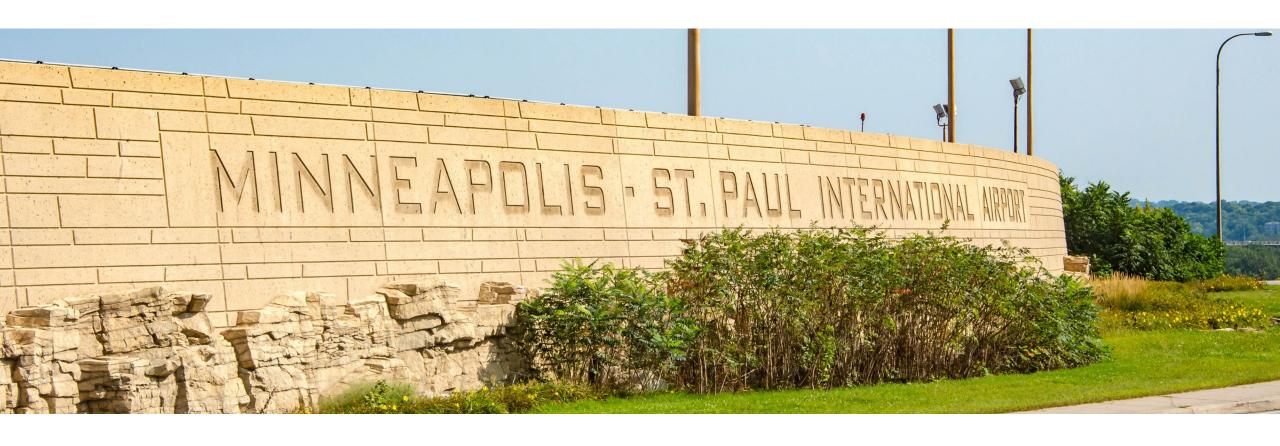
November 2021

December	2021

Runway 17	99.6%
Corridor	92.8%
<b>Cross Day</b>	25.2%
<b>Cross Night</b>	40.1%

 RUS
 52.7%
 Arrive - 60%
 Depart - 46%
 RUS
 52.3%
 Arrive - 52%
 Depart - 53%

## ITEM 2 PUBLIC COMMENT PERIOD







## ITEM 2 PUBLIC COMMENT PERIOD

#### **Speaking at a Meeting**

- Each speaker will have one opportunity to speak and is allotted three (3) minutes.
- When called upon to speak, speak clearly, 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.





### 4.1 – VOR MINIMUM OPERATIONAL NETWORK







NOISE OVERSIGHT COMMITTEE JANUARY 19, 2022

Decommissioning the Very
High Frequency OmniDirectional Range (VOR)
Minimum Operational
Network (MON) Program
at
Minneapolis-Saint Paul
International Airport (MSP)

Rebecca MacPherson, FAA Great Lakes Regional Administrator

January 19, 2022



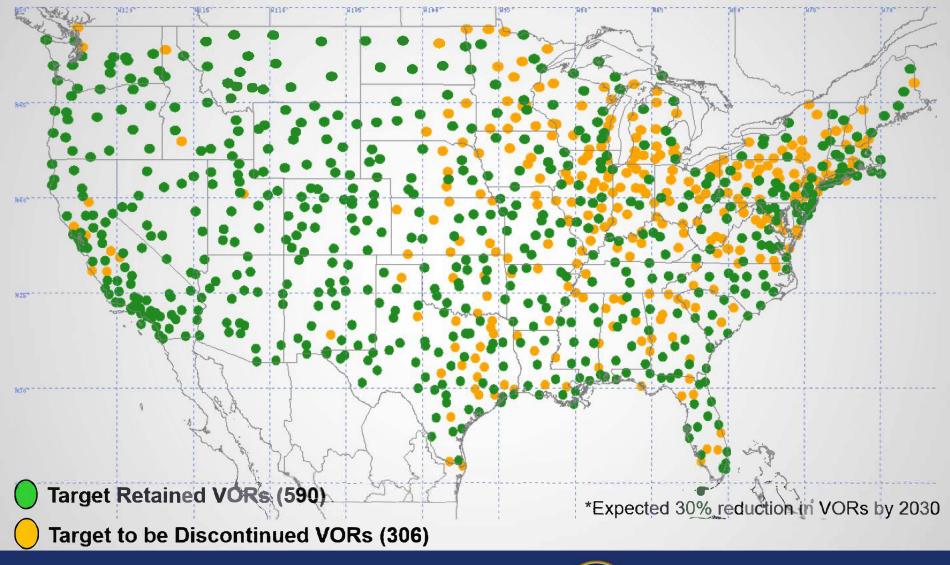
# Very High Frequency Omni-Directional Range (VOR)

- The Very High Frequency Omni-Directional Range (VOR) is a ground-based electronic system that provides information for high and low altitude routes and airport approaches.
- Used by the FAA since the 1950s for all phases of flight.
- VOR is part of a conventional navigation procedure and is used in instrument landings and navigation.

## **VOR MON Program Background**

- Purpose: Support the National Airspace System (NAS) transition from VOR-based routes to a more efficient Performance-Based Navigation (PBN) structure, consistent with NextGen goals.
- Within the contiguous United States (CONUS), enable pilots to:
  - Revert from PBN to conventional / VOR navigation in the event of a Global Positioning System (GPS) outage;
  - Identify an airport with a VOR MON approach, at a minimum altitude of 5,000 feet above ground level (AGL) or higher;
  - Navigate to a MON airport within 100 nautical miles
- Discontinue approximately 30% (306) of VORs by 2030, in accordance with JO 7400.2 and established policies.
- Standard navigational aid removal procedures and circularization will be completed prior to initiating each VOR discontinuance.

## **VORs** in the Continental US (CONUS)





## **Next Steps**

- Most procedures will be replaced with PBN and GPS navigation.
- Current departure procedures will be replicated with satellite-based Vector Standard Instrument Departures (SID) vs. ground-based navigation.
- Noise abatement procedures will be incorporated to the maximum extent possible.
- Coordination and synchronization will be required between FAA, MSP, and airlines.

## **Next Steps – Community Engagement**

- The MSP VOR will be decommissioned on August 7, 2025.
- Significant efforts will be placed on Community Engagement and Community Involvement throughout the process, in addition to (National Environmental Policy Act) NEPA.
- The Great Lakes Regional Administrator's Office will develop a Community Engagement / Community Involvement Plan.
- The plan and associated timelines will be distributed to the MAC, the NOC, and local communities through a variety of means.
- Community Engagement and Community Involvement will take approximately 2-3 years. Anticipated start - Q3-4 2022.

## **Projected Timeline**

Identify Collaborative Workgroup and schedule meetings

#### MSP Scheduled Chart Date is 8/7/2025



MSP (combined with other VOR MON projects in the area) may require additional scheduling/coordination and may need additional time for Environmental/Community Engagement Plan

List of area VORs on the VOR MON Schedule: OTG, MKT, DWN, ODI, MSP, ROX, RST, FCM, GPZ



#### **Questions?**

#### **Contact Information:**

- Rebecca MacPherson, Regional Administrator for the Great Lakes Region
  - (p) 847-294-7294
  - (e) Rebecca.MacPherson@faa.gov
- Nitin Rao, Community Engagement Officer for the Regional Administrator
  - (p) 847-294-7375
  - (e) Nitin.Rao@faa.gov

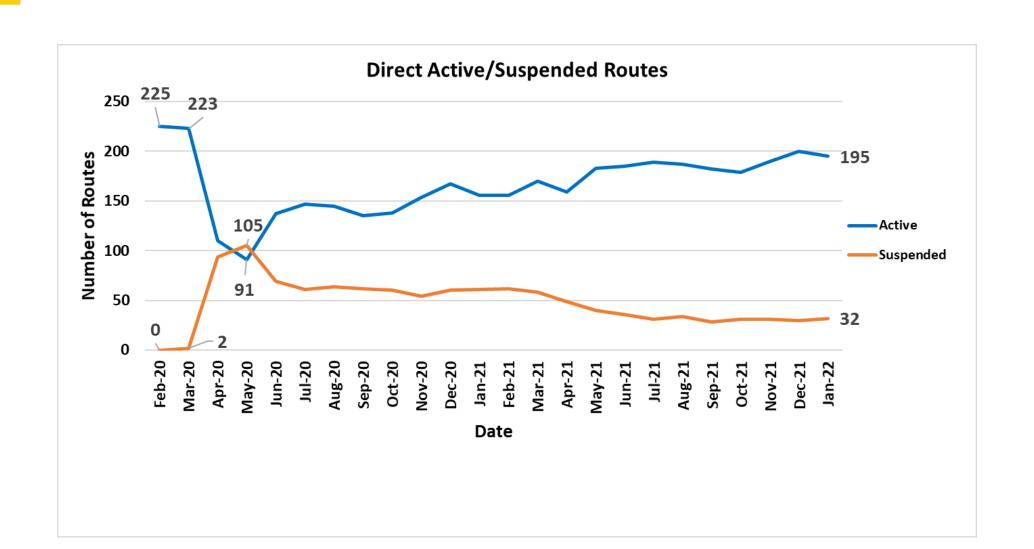
## 4.2 – MSP AIR SERVICE UPDATES



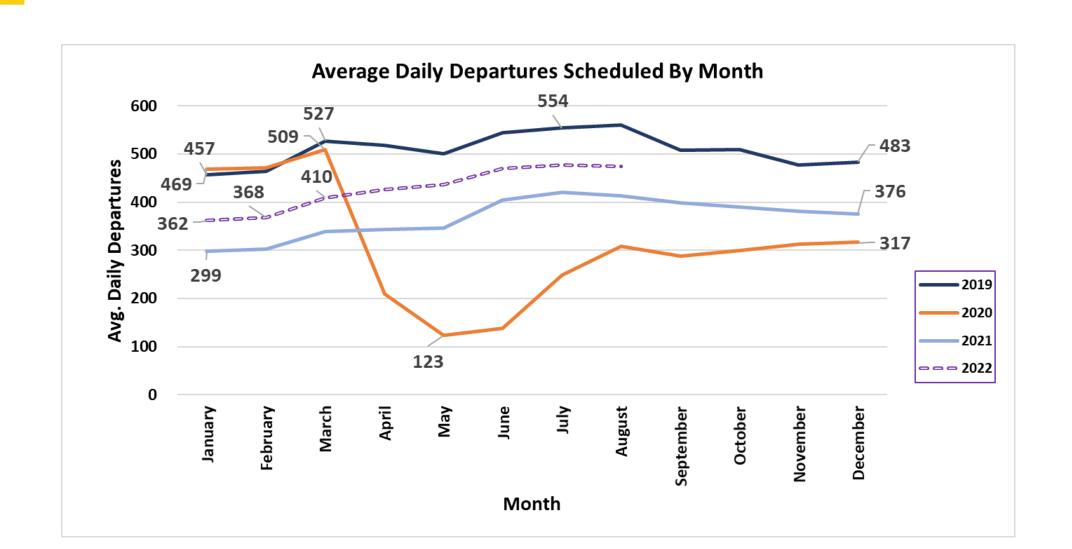




## **MSP Direct Active / Suspended Routes**

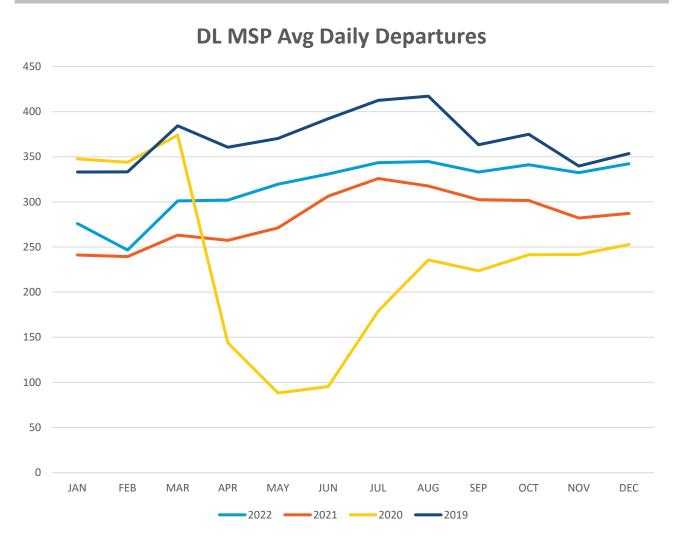


## MSP Average Daily Departures Scheduled by Month



#### **DL MSP Scheduled Operations – 2019-2021**

#### Recovery of MSP service towards pre-COVID levels continues



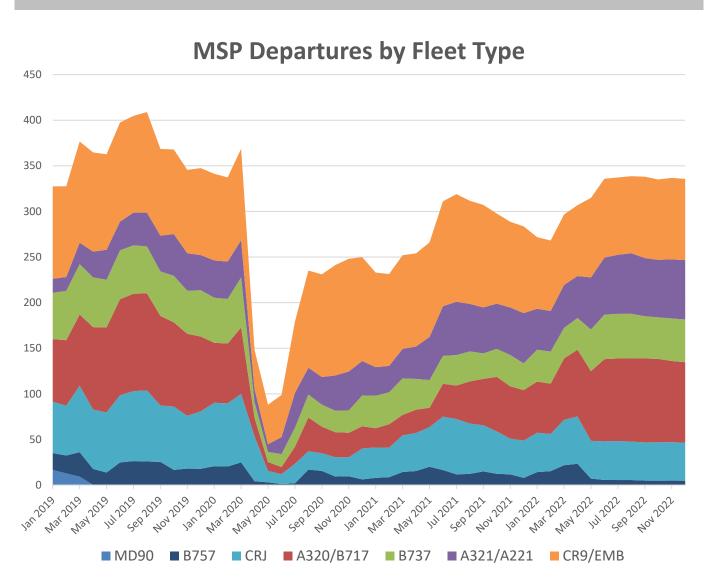
- Data shown is for flights operated thru JAN22 and for flights available for sale FEB22-DEC22
- Actual 2022 operations are subject to change and are dependent on travel restrictions and COVID related demand changes

#### **Summer Schedule Highlights**

- International Market Resumptions— LHR (26Mar), HND (27Mar), ICN (27Mar) & AMS#2 (26May)
- Domestic & Canada New/Resumed Markets AVL (16Apr), BTV (07Jun), BUF (06Jun), CHS (11Apr), JAX (11Apr), MYR (11Apr), PVD (06Jun), PWM (06Jun), SAV (12Apr), YUL (06Jun), YVR (05May)

#### **DL MSP – Fleet Profile**

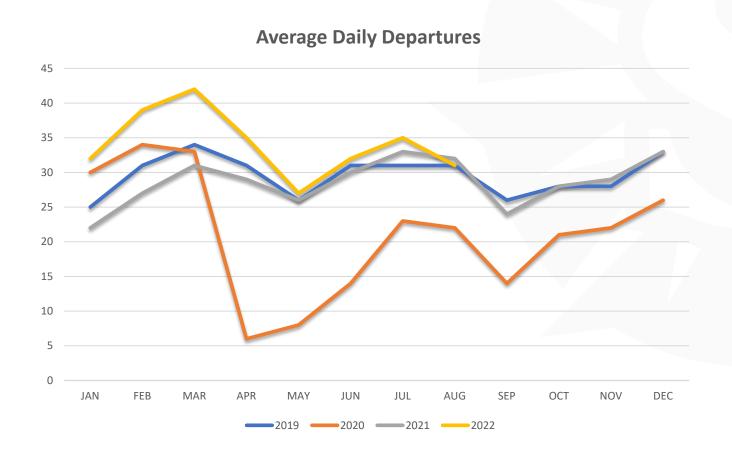
#### **New Generation Aircraft Deployed on 46% of MSP Departures**



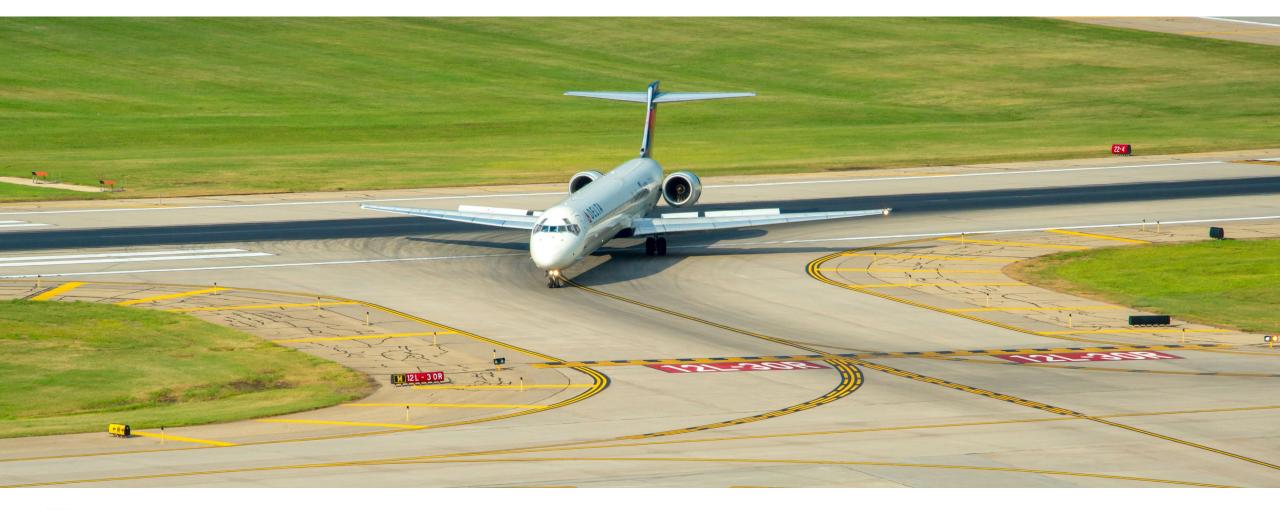
- Newest generation aircraft (A321/A220/E75) deployed on 46% of departures, up 10pts since JAN19
- Oldest generation aircraft (MD90, CRJ-200, B757)
   deployed on 14% of departures, down 15pts since JAN19

## Sun Country Air Service Update

- Early 2022 increase in daily operations
  - February 2022: 39
    - 26% increase over 2019
  - March 2022: 42
    - 24% increase over 2019
  - April 2022: 35
    - 13% increase over 2019
- Cargo flying reflected through April 2022
- 2022 New Markets:
  - GEG, YVR, BTV, BUF, PIT, CHS, JAX



## 4.3 – 2021 COMPLAINT DATA ASSESSMENT

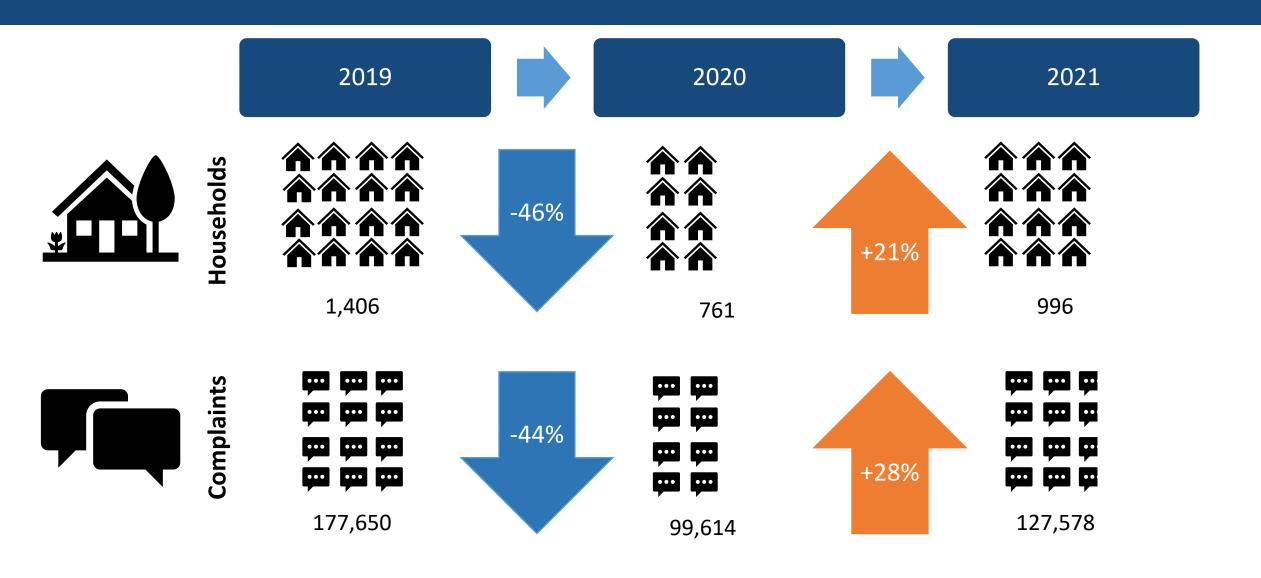




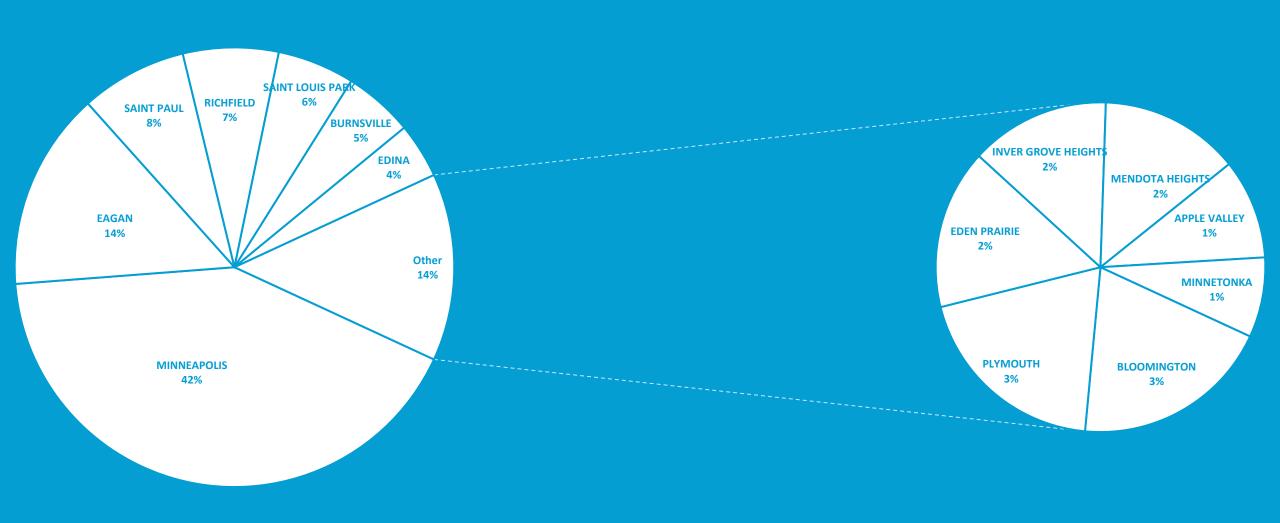


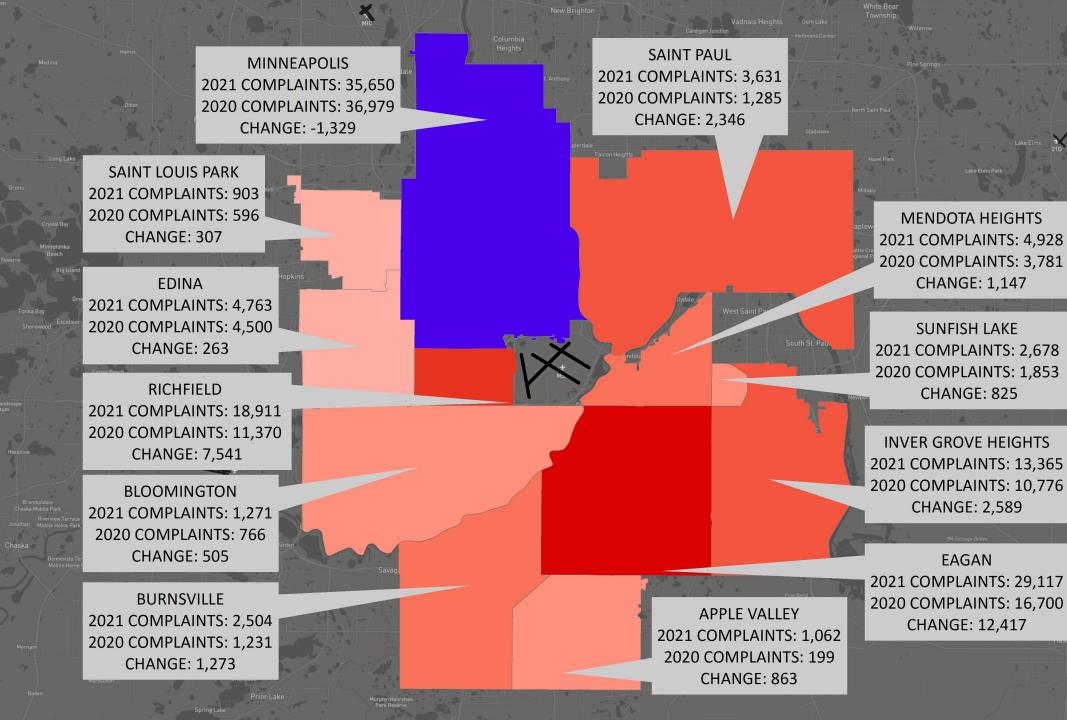
NOISE OVERSIGHT COMMITTEE JANUARY 19, 2022

#### **Total Households and Total Complaints 2019-2021**







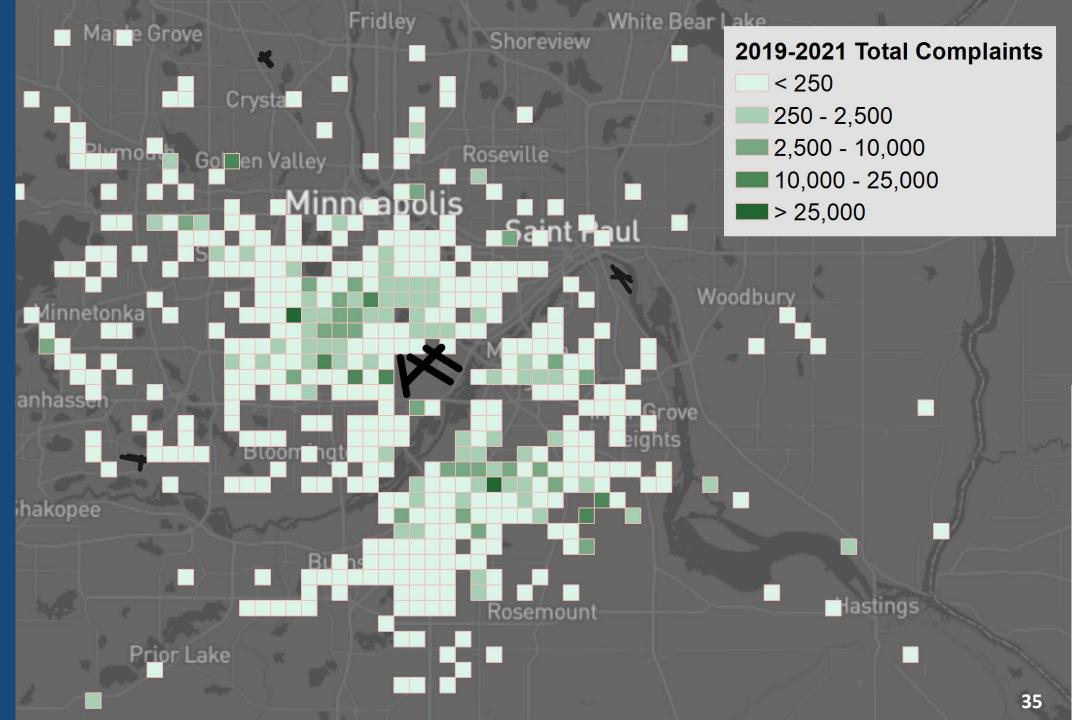




Change in Complaints
By City

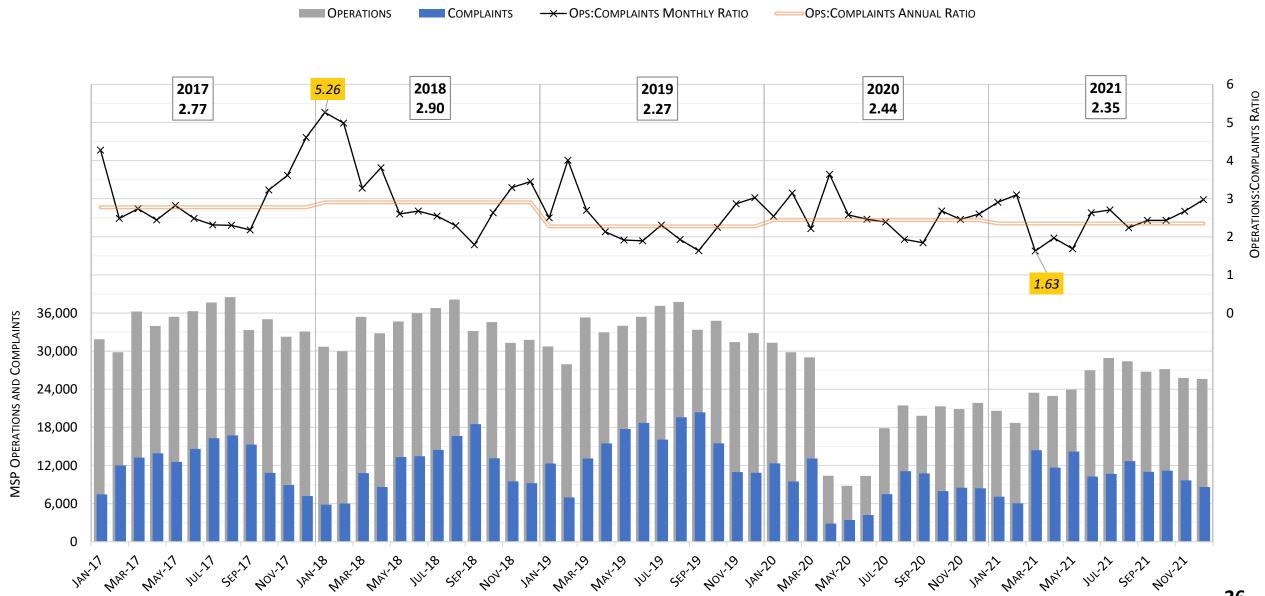


Total Complaints
2021



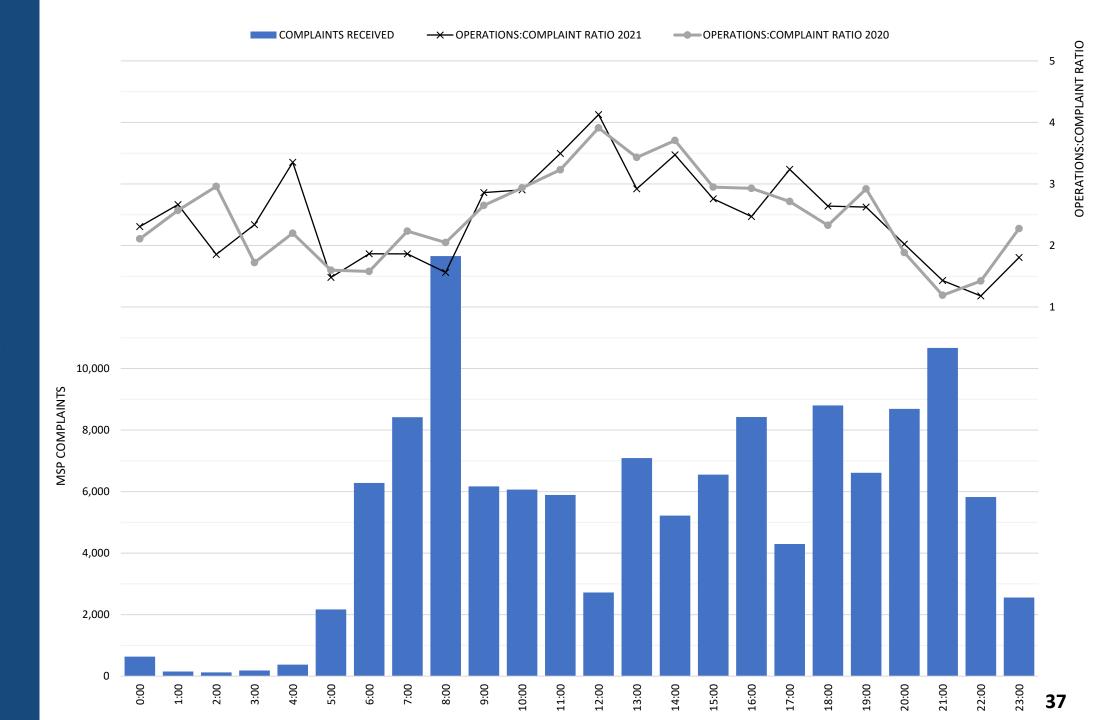


#### 2017-2021 Operations to Complaints Ratio



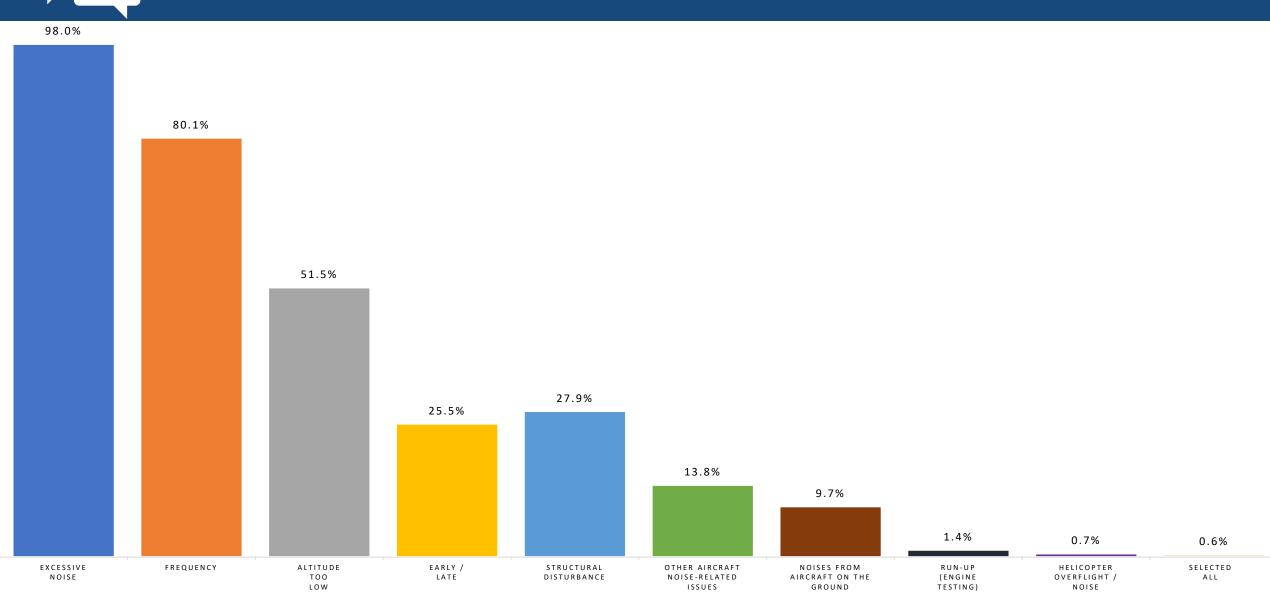


2020 & 2021
Complaints to
Operations
Ratio
by Hour





#### **2021 Complaints Filed By Complaint Reason**







Operation Type	Total Operations	Total Complaints	Ratio
Commercial Jet	279,921	121,443	2.3
Jet	10,196	1,663	6.1
Turboprop	5,949	1,606	3.7
Propeller	2,834	1,032	2.7
Unknown	337	36	9.4
Military	88	90	1.0
Helicopter	38	15	2.5



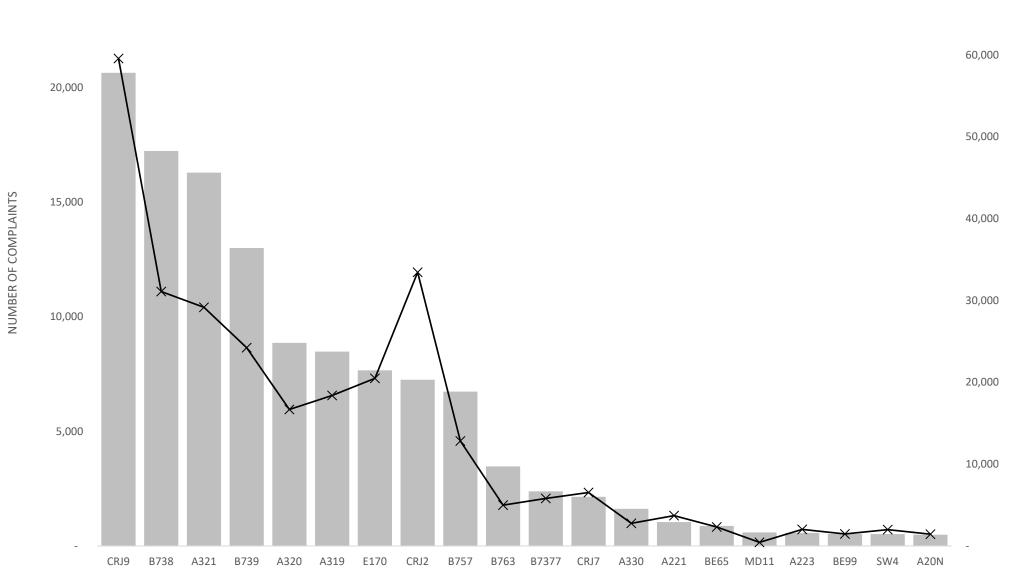
2021
Complaints By
Aircraft Category

70,000



25,000

2021
Complaints By
Aircraft Type



TOTAL COMPLAINTS

-X-TOTAL OPERATIONS

Operation Number	Aircraft Type	Flight ID	Date and Time	Number of Complaints	Number of Households
26423436	F16	Unknown	3/4/2021 12:05	23	18
26521480	F16	Unknown	3/4/2021 12:11	22	18
26776335	B722	KII2043	6/29/2021 22:36	13	12
27087874	B722	KII185	9/8/2021 22:51	11	11
26439906	B722	KII185	3/10/2021 22:41	12	11
26508164	B722	KII185	3/17/2021 22:27	11	10
27361968	B722	KII185	10/11/2021 22:10	10	10
26427332	B722	KII185	3/5/2021 22:32	10	10
27137617	B722	KII185	9/22/2021 22:21	11	9
27223163	A321	DAL2636	10/17/2021 20:07	13	9

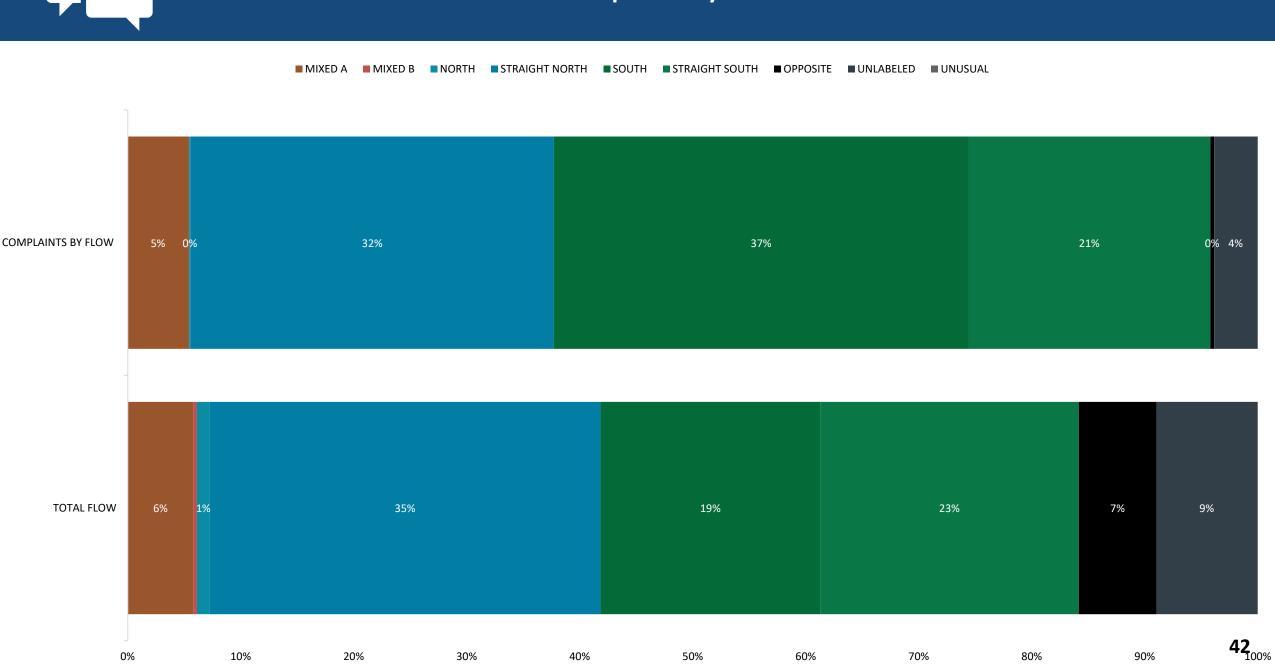


2021
Top 10 Flights
That Generated
Complaints



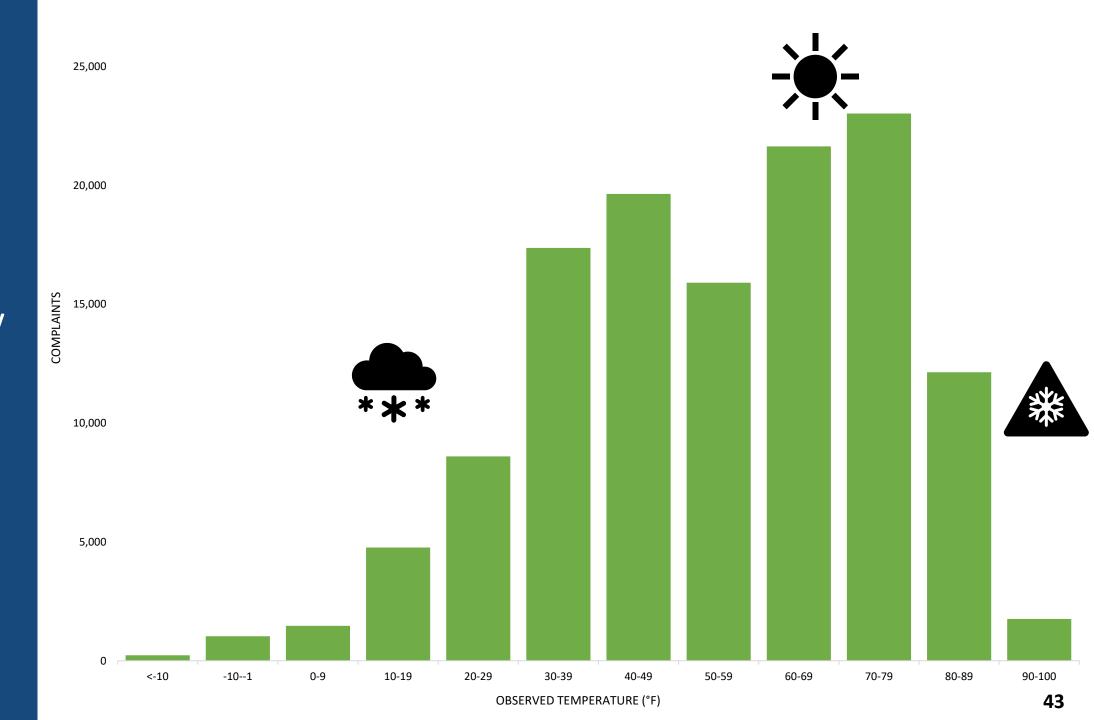


#### **2021 Complaints By Flow**

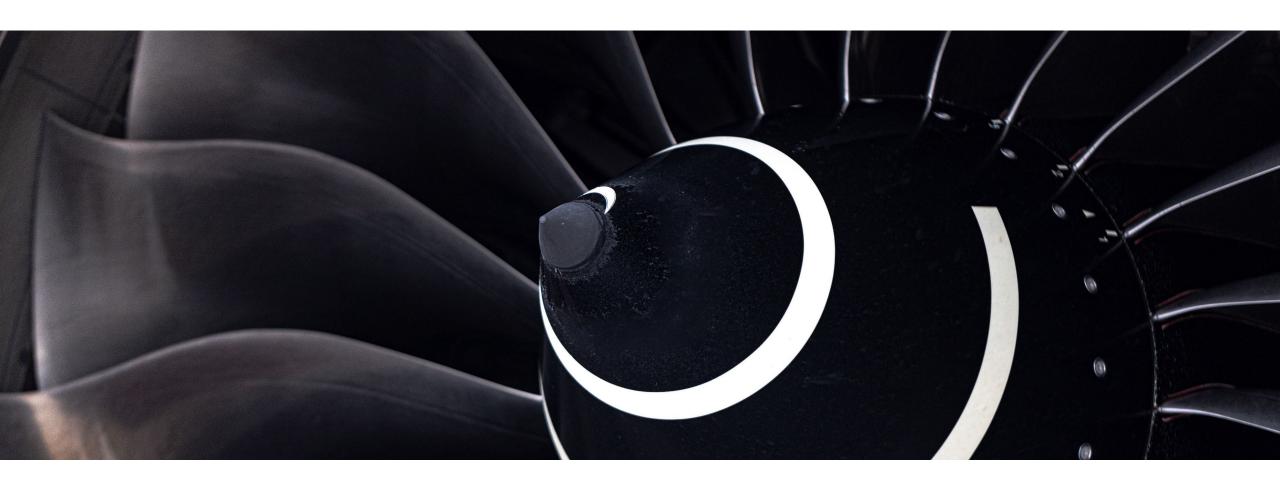




2021
Complaints By
Temperature



# 4.4 – 2021 FLEET MIX AND NIGHTTIME OPERATIONS ASSESSMENT





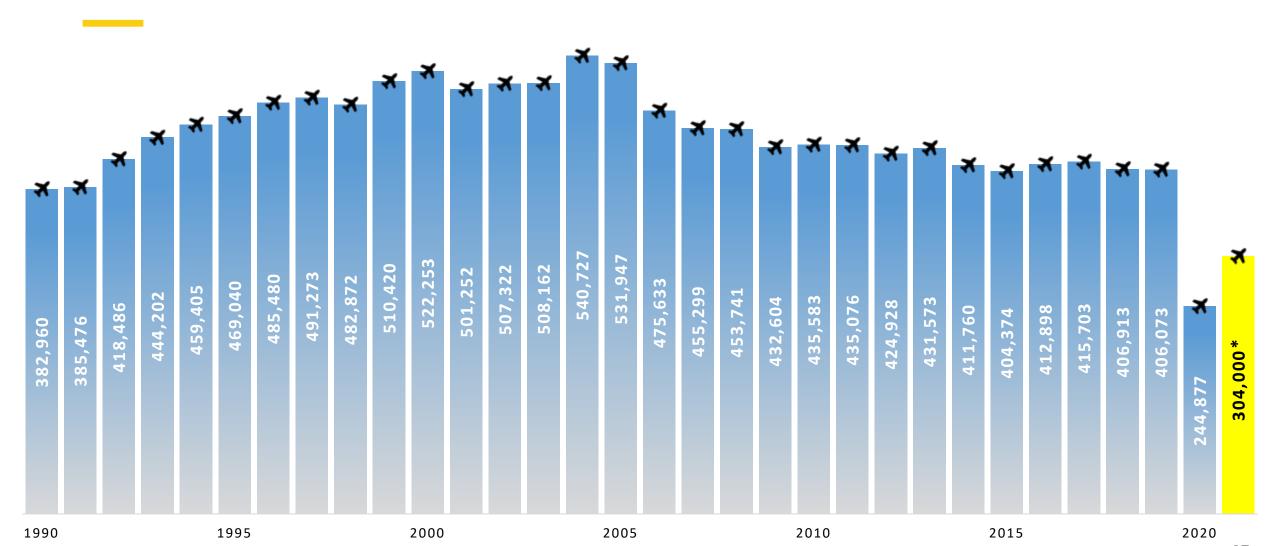


NOISE OVERSIGHT COMMITTEE JANUARY 19, 2022





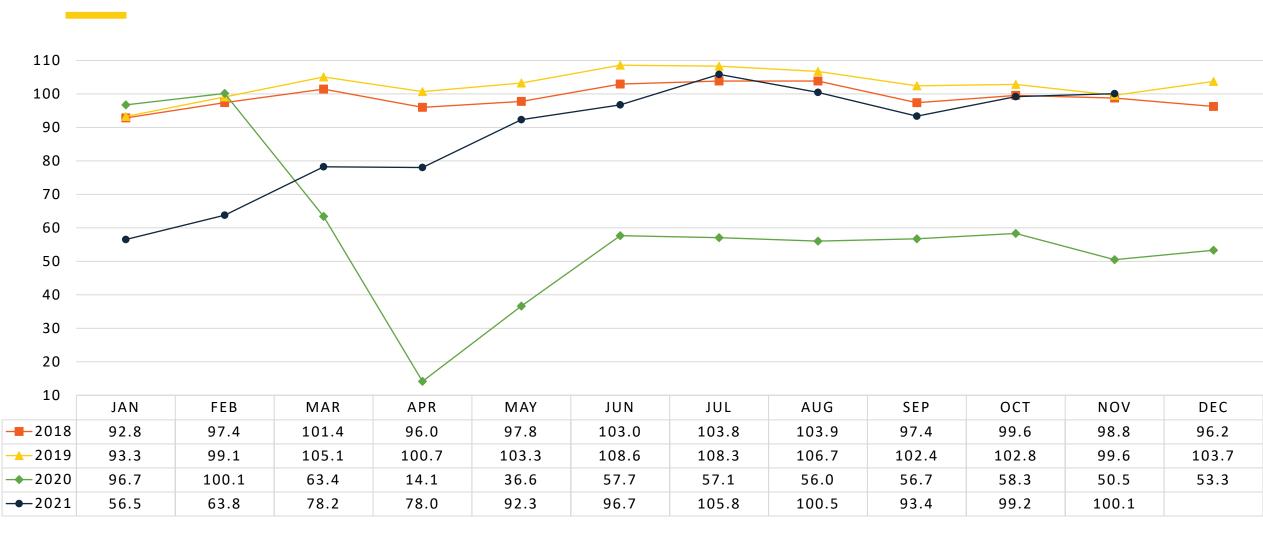
#### MSP Operations (FAA Opsnet)







### **MSP** Passengers per Flight







## **MSP Operations Fleet Mix**

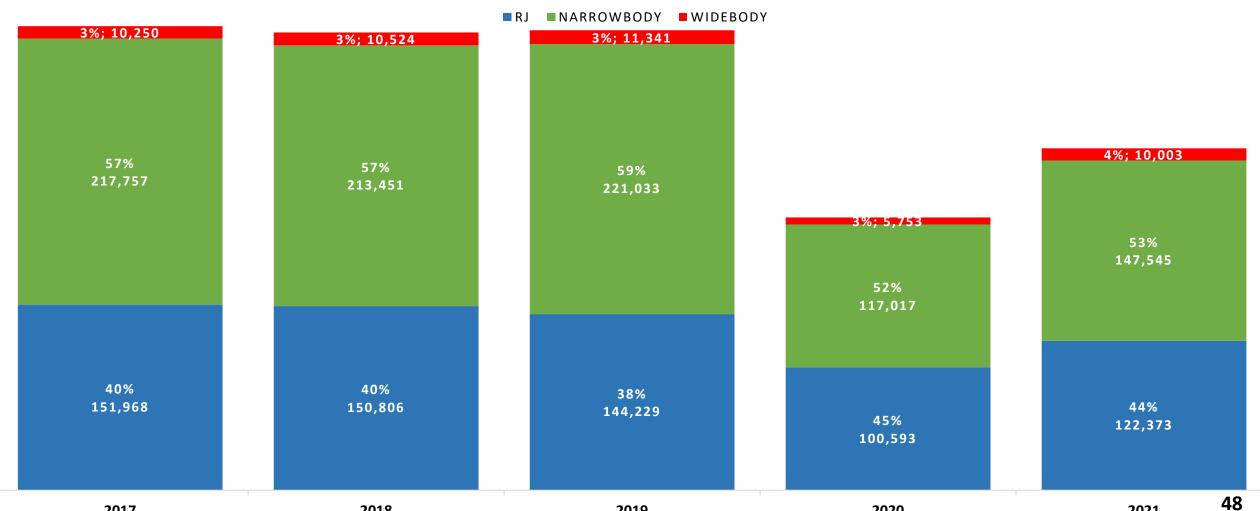
Other 8.1%	Other 7.5%	Other 6.7%	Other 8.1%	Other 6.5%
Carrier Jet				
91.9%	92.5%	93.3%	91.9%	93.5%

2017 2018 2019 2020 2021 **47** 





### **MSP Operations Fleet Mix**









**REGIONAL JET** 

**Narrow Body** 

**WIDE BODY** 

Other; 2,387

CRJ7; 6,531 E170

> CRJ2 33,437

20,474

CRJ9 59,544

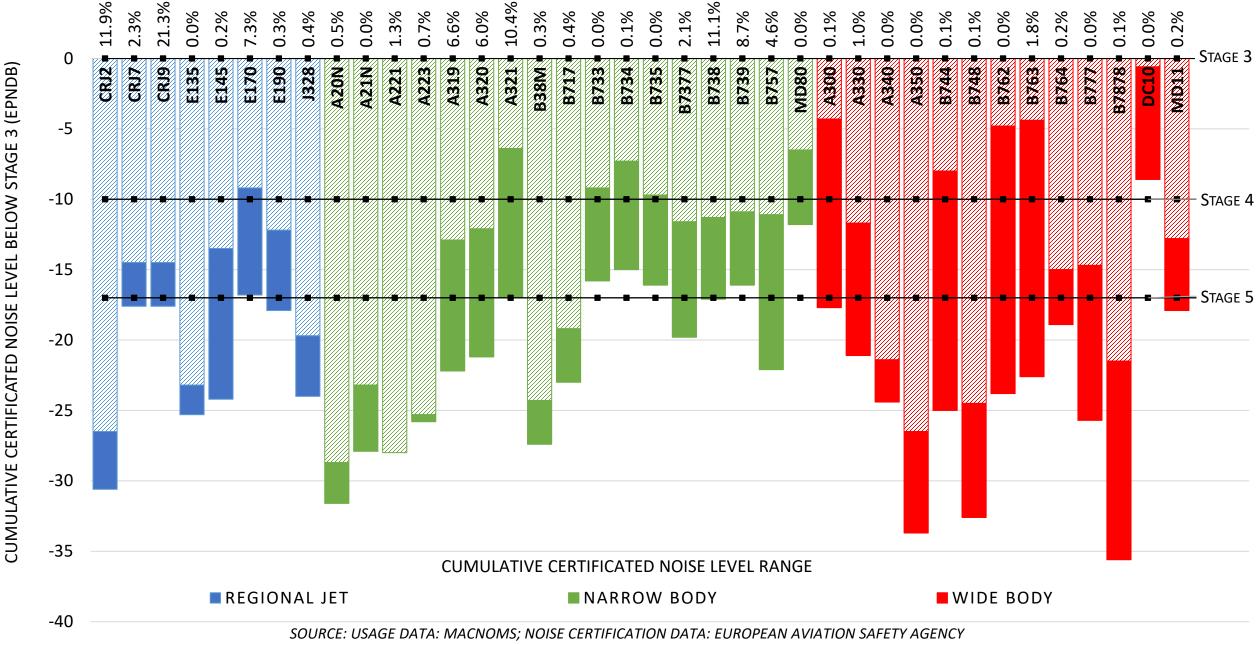
A20N: 1 442	Other; 1,157	B717; 1,081
A20N; 1,442	A220; 5,729	5717, 2,001
B7377; 5,810		
	B757	
	12,821	
	A320	
	16,676	
	A319	
	18,382	
	10,302	
	B739	
	24,217	
	A321	
	29,154	
	29,134	
	B738	
	31,076	

Other; 192 B744; 170 B7878; 186 B748; 245 A300; 400 MD11; 443

B764; 613

A330; 2,765 B763; 4,989

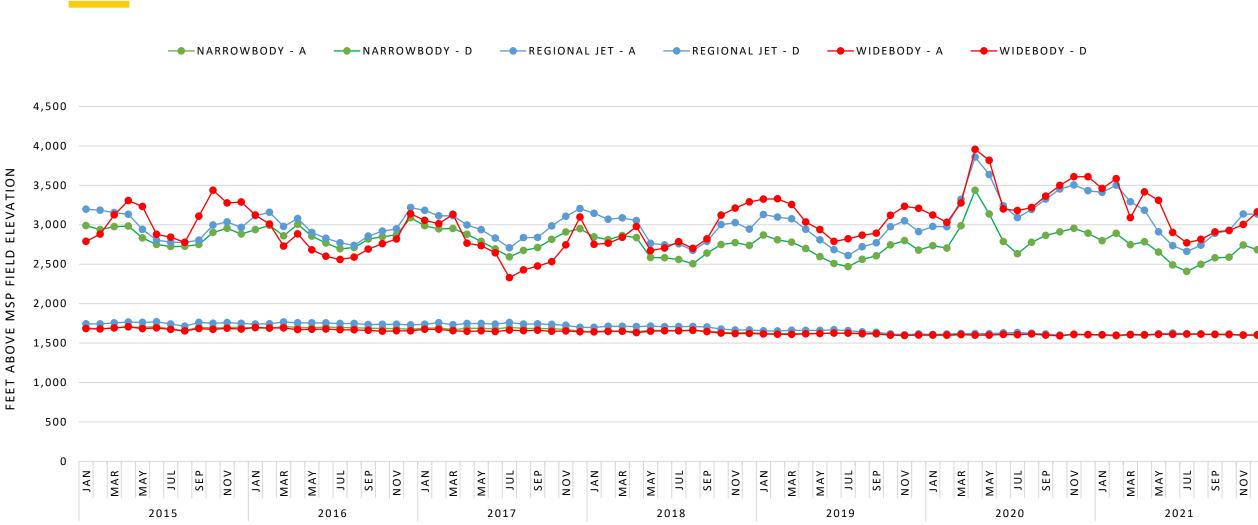
#### 2021 MSP CARRIER JET USAGE WITH CUMULATIVE CERTIFICATED NOISE LEVELS







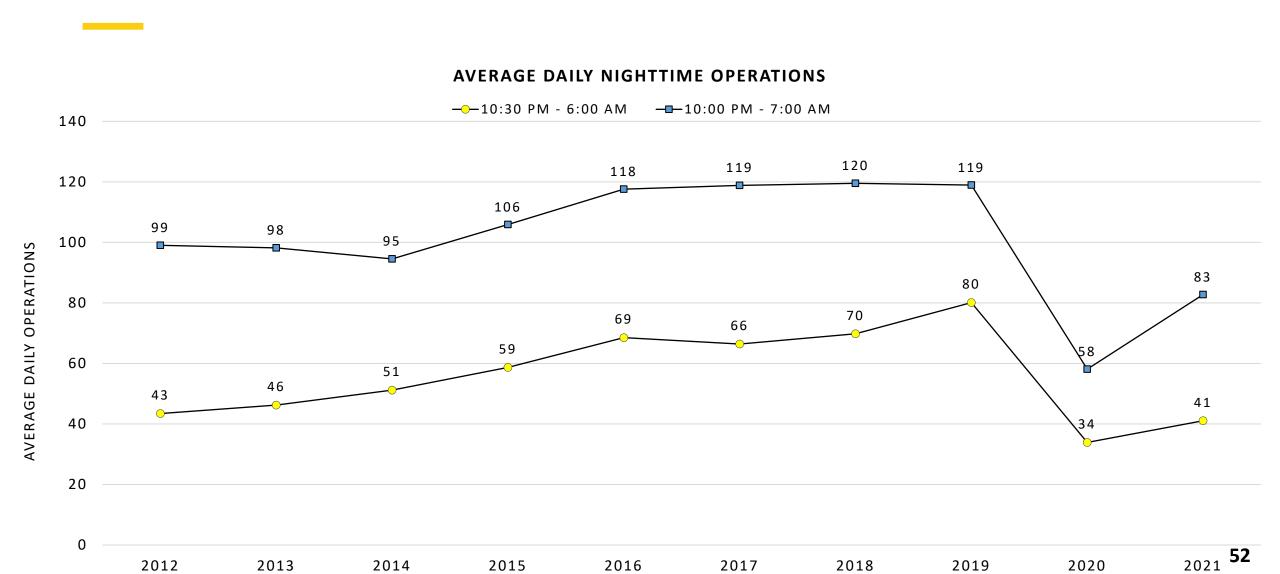
### **Average Altitude**







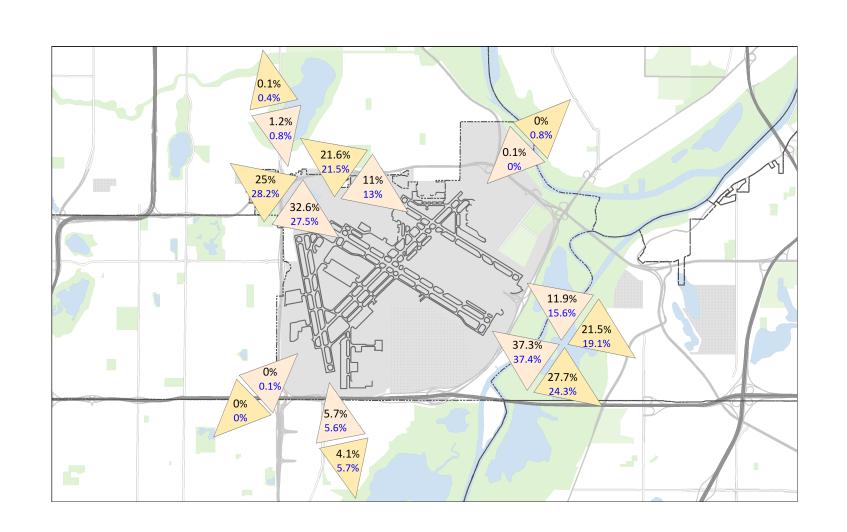
### **Average Daily Nighttime Operations**







### **Nighttime Runway Use**







## **Nighttime Operations by Airline and Aircraft**

AIRLINE	ID	COUNT	PERCENT OF AIRLINE OPERATIONS' OCCURRING AT NIGHT	PERCENT OF CONTRIBUTION TO NIGHTTIME TOTAL
DELTA	DAL	3,597	3.6%	25.1%
SUN COUNTRY	SCX	3,214	15.6%	22.4%
SKYWEST AIRLINES	SKW	1,632	2.3%	11.4%
UPS	UPS	1,271	33.2%	8.9%
AMERICAN	AAL	1,219	15.9%	8.5%
SOUTHWEST	SWA	957	10.3%	6.7%
FEDEX	FDX	679	19.6%	4.7%
GULF & CARIBBEAN CARGO	TSU	367	96.8%	2.6%
ALASKA	ASA	283	21.8%	2.0%
ENDEAVOR AIR	EDV	281	0.7%	2.0%
ENVOY AIR	ENY	201	12.6%	1.4%
UNITED	UAL	194	4.0%	1.4%
SPIRIT	NKS	179	5.2%	1.2%
FRONTIER AIRLINES	FFT	129	11.1%	0.9%
MESA AIRLINES	ASH	119	7.0%	0.8%

AIRCRAFT CODE	DESCRIPTION	COUNT	NOISE LEVEL CERTIFICATION (EPNdB BELOW STAGE 3)
B738	BOEING 737-800	4,284	11.3 - 17.1
B757	BOEING 757-200	1,841	11.1 - 22.1
A321	AIRBUS INDUSTRIES A321	1,463	6.4 - 17
CRJ9	CANADAIR REGIONAL JET CRJ-900	1,243	14.5 - 17.6
B739	BOEING 737-900	970	10.9 - 16.1
E170	EMBRAER 170	693	9.2 - 16.8
B763	BOEING 767-300	661	4.4 - 22.6
CRJ2	CANADAIR REGIONAL JET CRJ-200	658	26.5 - 30.6
B7377	BOEING 737-700	643	11.6 - 19.8
A319	AIRBUS INDUSTRIES A319	614	12.9 - 22.2
A320	AIRBUS INDUSTRIES A320	483	12.1 - 21.2
A330	AIRBUS INDUSTRIES A330	287	11.7 - 21.1
A300	AIRBUS INDUSTRIES A300	137	4.3 - 17.7
B38M	BOEING 737-8 MAX	97	24.3 - 27.4
MD11	MCDONNELL DOUGLAS MD11	94	12.8 - 17.9

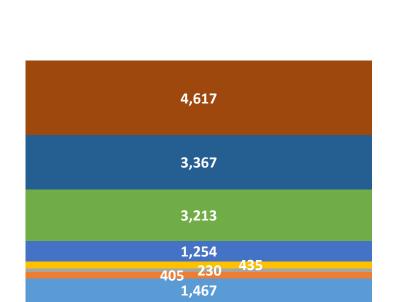


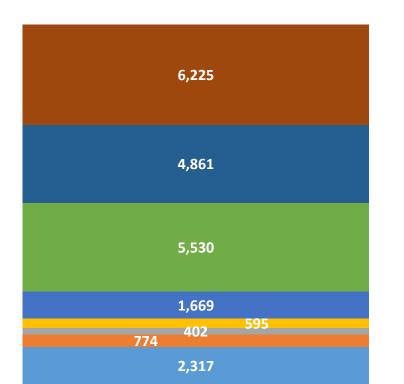




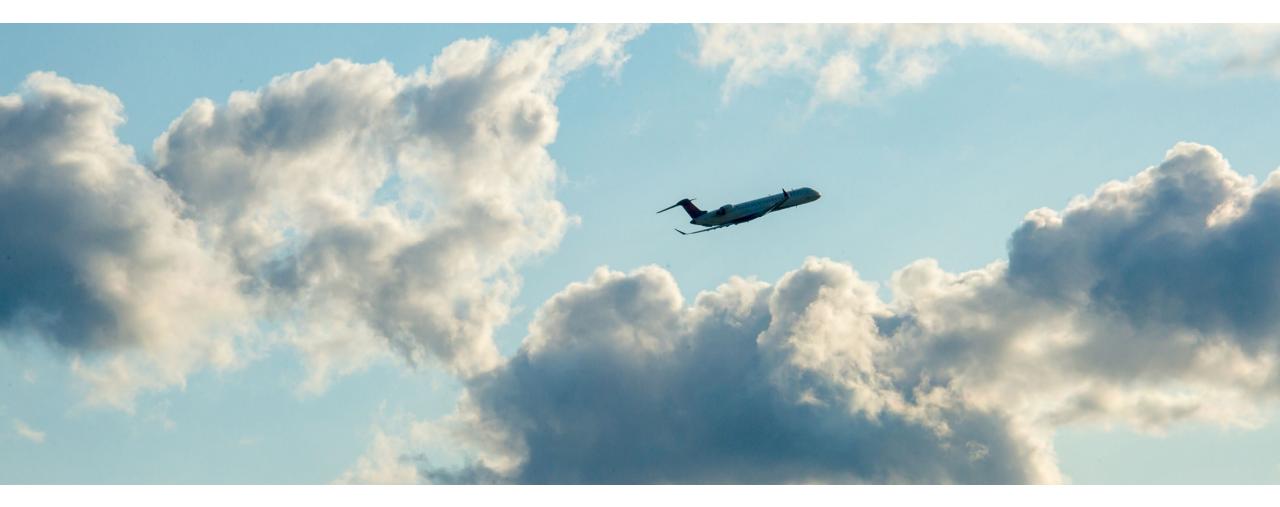
#### **3-YEAR HISTORICAL AVERAGE**







#### 4.5 – WEBSITE UPDATE







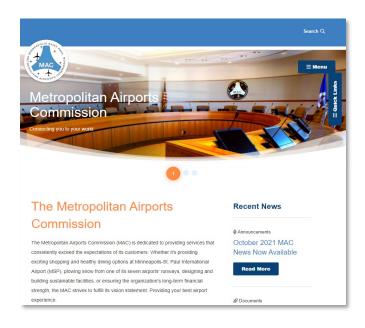
NOISE OVERSIGHT COMMITTEE JANUARY 19, 2022

# PROJECT OBJECTIVE

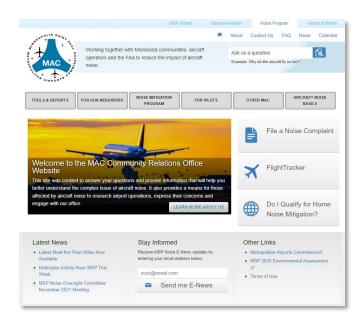
Redesign metroairports.org to enhance the user experience.

Top priorities included ensuring engagement, timely and relevant content and ease of access for the audiences and communities we serve.

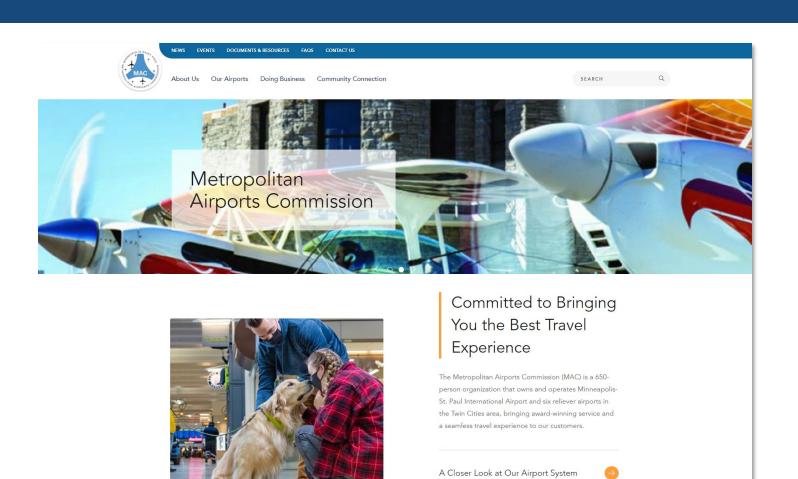
# Site Highlights Branding + Messaging







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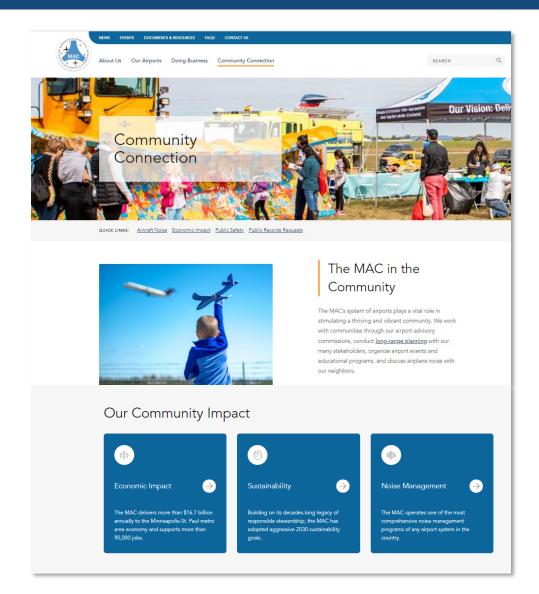


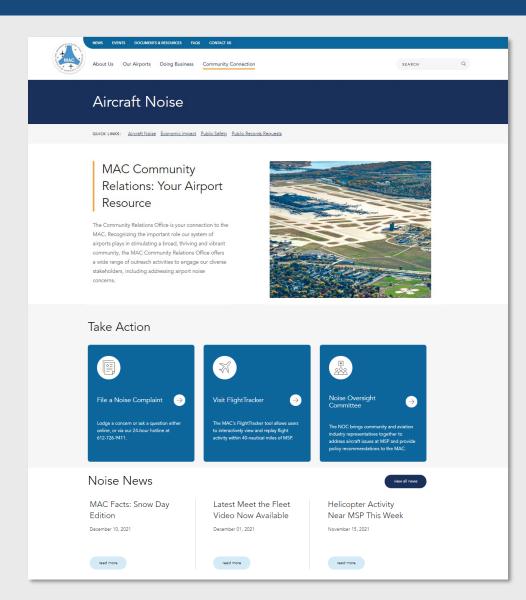
Highlights of Our Sustainability Efforts

Learn About Career Opportunities at the MAC

### Site Highlights

#### MACnoise.com Enhancement





# ITEM 5 ANNOUNCEMENTS

**Winter Listening Session** 

Wednesday, January 26, 2022 @ 6:00 PM

March NOC Meeting

Wednesday, March 16, 2022 @ 1:30 PM



