



Baggage Claim
Ground Transportation



2021 Annual Report

GREETINGS

We are pleased to present the Metropolitan Airports Commission's 2021 Annual Report.

Much like in 2020, the global COVID-19 pandemic and its continuing impacts on air travel demanded a central role on the world stage in 2021. We monitored the significant increase in demand for air travel and the substantial gap that still remained from the demand peaks of 2019. We also heralded the return of suspended airline routes as well as the addition of previously unserved destinations. However, most of our focus was very much on the future. The question isn't how we return to our 2019 status; it's how we establish a strong competitive position in a world where COVID-19 variants continue to present a threat and remote meetings through technology reduce the need for some travel.

We approached that challenge in numerous ways in 2021, including:

- Focusing on increased efficiency and reduced expenses
- Providing financial breaks to key airport tenants whose success is vital to our own
- Growing our diversity, engagement and inclusion initiatives to honor and celebrate not only the entire MAC workforce but also that of the airport community
- Using technology to improve airport and customer service operations
- Fostering teamwork throughout the MAC as well as with our partners in the airport and external business community
- Working with the Airport Foundation MSP to continue showcasing Minnesota by expanding the arts and culture program at MSP
- Improving airport facilities to enhance safety, efficiency and the entire passenger experience

Thank you for your interest in the Metropolitan Airports Commission.



Rick King
Rick King
Chairman



Brian Ryks
Brian Ryks
Executive Director
and CEO





TABLE OF CONTENTS

Helping our Community and Travelers Stay Safe.....	1
Passengers, Airlines and Routes.....	3
Traveler Experience - A Community Endeavor	5
Major Improvements at MSP	9
General Aviation Airports	11
Connecting with the Community.....	25
The MAC, Board and Senior Leaders.....	27
Appendix.....	i



HELPING OUR COMMUNITY AND TRAVELERS STAY SAFE

The availability of COVID-19 vaccines in 2021 was a turning point for the air travel industry. By September, many of the world's countries, including the United States, had lifted travel restrictions for people who were fully vaccinated, opening travel up between the U.S. and many popular destinations and helping to reunite loved ones who had not seen each other for 18 months or more.

Early in the year the priority was for the most vulnerable, including the elderly, physically compromised and essential workers – such as airport employees – to be vaccinated.

In December of 2020, the Metropolitan Airports Commission (MAC) began working with the Minnesota Department of Health on a plan to vaccinate airport workers as soon as vaccine supply levels allowed. This was a significant undertaking, as there are more than 700 organizations doing business at Minneapolis-St. Paul International Airport (MSP) with thousands of workers potentially eligible to receive the vaccine at this on-site, easily accessible clinic.

Working closely with the airport community – including airlines, concessionaires, government agencies and service providers - the MAC helped more than 5,400 airport workers receive the vaccine.

Then in June, the MAC worked with the Minnesota Department of Health to set up COVID-19 vaccine clinics at both airport terminals for community members and MSP travelers. These clinics offered the Johnson & Johnson one-shot vaccine, which made it quicker and easier for people to become fully vaccinated. These clinics continued to serve the public throughout the remainder of 2021 and into 2022.



11,000
vaccines administered

In 2021, the MAC also continued its partnership with the State to provide a popular and convenient COVID-19 testing site at Terminal 1.



400,380
tests administered

To support travelers bound for certain international destinations who were required to provide proof of a negative COVID-19 test within a short turnaround time, in April, the MAC contracted with Wandertest to provide onsite rapid testing options for a fee. While Wandertest was initially located inside the secure area for same-day travel, the testing site moved to a pre-security location in June

so that anyone, regardless if they were flying somewhere, could purchase and receive a rapid test result.



34,666
rapid tests administered

Providing convenient vaccination and testing options at MSP are two key ways the MAC demonstrates its steadfast commitment to help travelers and our community members stay safe. Another way is by keeping its facilities clean and safe for anyone visiting or working at MSP.

MSP's Travel Confidently MSP program continues to support the recovery of air travel. Health safety measures include robust facility cleaning and disease prevention operations, which earned MSP accreditations for the second year in a row in 2021 from the GBAC STAR™ program and the Airport Health Accreditation program.

Other elements include the promotion of face coverings and social distancing, placement of hundreds of hand sanitizer dispensers in public spaces, installation of Plexiglass shields at customer interaction points, and the adoption of touchless technology for pre-booked parking and food and beverage ordering and payment.

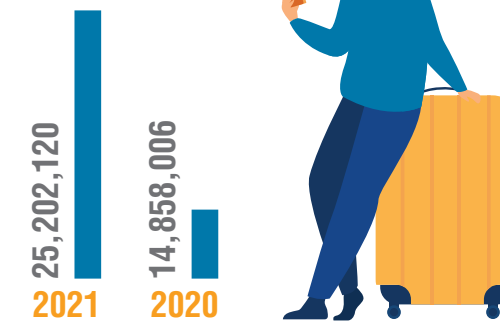




PASSENGERS, AIRLINES AND ROUTES

Travelers returned to MSP at a steady pace in 2021. Most of that travel was within the confines of the United States, as there were fewer international travel opportunities due to travel restrictions.

Total Passengers



As travel demand increased, airlines began adding back routes they had paused in 2020.

MSP gained 27 new year-round or seasonal destinations from six airlines in 2021, reaching a total 137 non-stop destinations. While an increase from 2020, the total remains below the 167 total destinations served in 2019.

The busiest times of the year occurred during Minnesota Education Week in October, the weekend of Thanksgiving in November, and the days following the Christmas holiday in December.

International Travel

Icelandair's return in June was a bright spot on the international travel scene. The airline, which paused service at MSP in 2020, returned to provide eager travelers direct access to Iceland and destinations beyond, offering four flights weekly to Keflavik International Airport serving Iceland's capital city of Reykjavik.

Besides Icelandair's return service, KLM resumed service to Amsterdam, Delta Air Lines resumed service to Winnipeg, Mexico City, Reykjavik and Paris, as did Air France. Air Canada resumed service to Toronto. And Sun Country Airlines added Providenciales in Turks and Caicos.

Condor Airlines and Delta also announced their intention to resume overseas flights in 2022, including Delta service to London, England, Seoul, South Korea, and Haneda, Japan.

Domestic Travel

Sun Country took advantage of its low cost and flexible operating structure and added 14 new direct routes in 2021, resulting in operations at Terminal 2 returning to pre-pandemic levels.

Between May and December, this Minnesota-based airline added flights from MSP to: Alaska, Arizona, California, Connecticut, Indiana, Florida, North Carolina, Ohio, Texas, and Wyoming, and one international destination – Providenciales in Turks and Caicos.

In June, new air carrier entrant Allegiant Air announced it would offer seasonal and year-round service to destinations in Florida and North Carolina starting in October, giving budget-conscious travelers a new air service option.

Operating out of Terminal 2, on October 7, MSP celebrated Allegiant's first flights to Asheville, NC and Palm Beach, FL. The next day, Allegiant conducted its first flight between MSP and Punta Gorda, FL.

Cargo Operations

Airlines not only ferry passengers from place to place. They also ship cargo across the globe. At MSP, air cargo shipments increased by 2.5 percent over 2019 and 15.2 percent over 2020. For cargo-only carriers, operations grew 10.2 percent over 2020. Much of the increase was fueled by buoyed consumer confidence, leading to an increase in retail and online purchases of goods across the world.

Total Airline Operations



Total of all takeoffs and landings, all aircraft types.



TRAVELER EXPERIENCE – A COMMUNITY ENDEAVOR

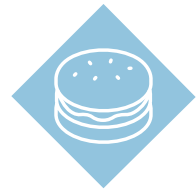
The MAC is always looking for ways to improve the traveler experience. While the pandemic sent shockwaves through the aviation industry, as well as through the organizations that support it, it also spotlighted just how determined a community can be when faced with a challenge.

In 2021, the MSP Airport community – consisting of almost 20,000 people representing airlines, federal agencies, concessionaires, transportation services and others – continued to show its ingenuity and determination to create the best possible experience for returning travelers.

While air travel has certainly changed, some things, thankfully, never change, like the delight travelers feel when encountering new services and experiences that enhance the travel journey.

Food Ordering for a New Day

One such service at MSP is that of its online food ordering option, which took off in 2021. Called MSP ASAP, this service – offered through MSP Airport’s website – is a one-stop shop for hungry travelers who prefer to peruse their choices from the comfort of a favored spot in the airport. With MSP ASAP travelers can order food for pick up or delivery from more than 20 different eateries and then check out online for a fully contactless experience.



MSP ASAP
powered by grab

Number of orders in 2021
3,281

Number of participating concessionaires
22

But the MAC can’t take all the credit for the program’s success. It took everyone involved, including the participating concessionaires and the two original competing ordering services (one for pick up and one for delivery) to reimagine how travelers seek out sustenance at MSP.

Arts and Culture on Display

MSP Airport’s Arts and Culture program has been bringing visual and performing arts experiences to travelers since 2008. A partnership between the MAC and the Airport Foundation MSP, the program – also known as Arts@MSP – represents another long-standing collaboration with a partner dedicated to providing travelers their best experience.

The Aurora © 2021 Jen Lewin



In 2021, over the course of several days, world renowned Artist Jen Lewin brought *The Aurora* to life, capping a three-year effort to bring her interpretation of Minnesota's northern lights to Terminal 1. Located pre-security and accessible to everyone, this metal and glass 29-foot interactive sculpture responds to motion and is programmed to display color combinations based on real-time weather data.

Live music and visual art performances also fully returned in 2021 bringing a liveliness back



to the airport that had been missed by travelers and employees alike.

In 2021, the debut of Jonathan Thunder's *Manifest'o* at MSP's Terminal 1 was perhaps the most visually and auditorily inspiring.

Keeping true to the mission to promote a sense of place, the MAC and the Arts@MSP program brought this visually stunning, digital exhibit about the Ojibwe people – one of Minnesota's 11 Indian tribes – to the airport in October,

filling the tunnel connecting concourses A and B with light and life.

Operational Excellence

At any large airport, behind the scenes you'll find thousands of people working together to create a seamless journey for air travelers. From the people who plow the roads and runways, to the security screeners guiding you through the process, to the person brewing your coffee and to the airline and Federal Aviation Administration representatives ensuring an on-time departure, everyone plays a part in making the airport experience efficient and pleasurable.

At the MAC, we understand the importance of casting a vision, collaborating with partners and coordinating efforts so that every step of the journey not only feels seamless but *is* seamless.

Every Tuesday since before the pandemic, with a focus on both safety and service, representatives from across the airport have gathered to discuss how to improve operational efficiencies, working as a team to ensure travelers' experiences at MSP live up to its best-in-class ranking.

At these meetings, representatives of the MAC's customer experience department lead discussions about security screening and wait times, construction projects, parking operations, future airline bookings and much more. In 2021, a report on the reopening of retail and dining venues was added to the agenda, along with continued updates about how the MAC and the airport community were responding to the ever-changing pandemic landscape.

Job Fairs

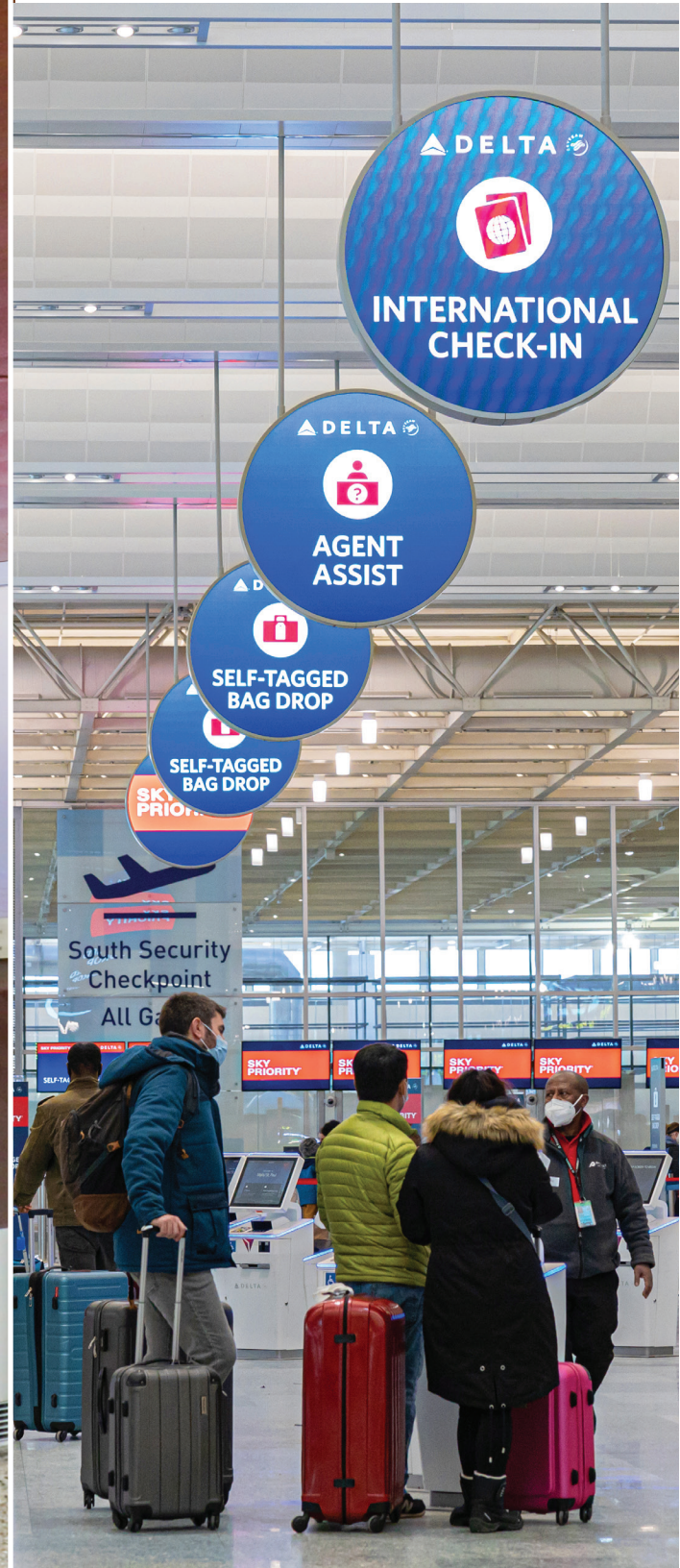
In 2021, across the nation and around the world, millions of service workers did not return to their previous jobs leaving many employers looking for ways to better attract and recruit people to these positions.

The airport business is largely made up of service industry workers, including security screeners, airline representatives, food and retail employees and ground transportation providers, to name a few. As travel demand increased in 2021, the ability to service those passengers was tested by a lack of workers.

To help address the issue, the MAC worked with more than 35 organizations at MSP Airport to hold three job fairs – one virtual and two onsite – that in total attracted more than 1,000 prospective employees.

In addition to coordinating and hosting the job fairs, the MAC also invested in a comprehensive marketing and promotional plan that targeted traditionally underrepresented groups, as well as people interested in aviation and those who live near the airport.





MAJOR IMPROVEMENTS AT MSP

The MAC made significant progress with two key construction programs at MSP in 2021: the continued modernization of Terminal 1's Departures and Arrivals spaces and the expansion and improvements on Concourse G.

Arrivals

The Arrivals level has been transformed over the past three years, including new baggage carousels, restrooms and seating options designed to create an efficient, welcoming, amenity-rich environment.

In 2021, new centrally located, expanded restrooms were completed, as was a smaller restroom on the south side. The central restrooms feature an adult changing room with a hoist and private nursing and lactation rooms for new moms.

Also inaugurated were six new baggage carousels that use both audio and visual cues – nature sounds and the Aurora Borealis - when bags are about to arrive. These carousels can handle 50 percent more luggage than their predecessors and are expected to serve MSP for decades to come.

Departures

Continued work on the Departures level brought dozens of self-serve flight check-in kiosks, improved lighting, high-visibility airline location indicators, improved wayfinding,

striking Terrazzo floors and *The Aurora* by Artist Jen Lewin.

Work on the expansion of the South Security Checkpoint also continued. This multi-phase project allows workers to lay all new Terrazzo floors without taking any of the checkpoint's current lanes out of service. When completed the number of lanes will have increased from six to nine.

An unseen – yet ingenious – improvement is the installation of hearing loop systems added to portions of the new flooring and at the new information desks on both levels. Hearing loops help people who use hearing assistive devices with telecoil-enabled technology to filter out background noise and better hear overhead announcements – an important feature when visiting an airport.

Improvements to these spaces will continue into 2022 with a completion date set for 2024.

Terminal 1 - Concourse G

Work continued in 2021 at the east end of Concourse G – gates G17-G22 – to expand the gate hold areas, provide larger, modernized restrooms, and bring artwork into the space. These improvements are part of a larger program to refurbish and reimagine the entire concourse, breathing new life into a well-used section of the terminal.



Work on Concourse G will continue into 2022 and include new food and beverage venues. Delta Air Lines is also planning a third MSP Airport Sky Lounge overlooking the new two-story glass rotunda and featuring the airport's first outdoor lounge area for patrons.



GENERAL AVIATION AIRPORTS

Looking at the numbers, it would be fair to say the MAC's six general aviation airports are experiencing a renaissance.

Collectively, operations at these airports grew by eight percent in 2021 over 2020 and

experienced double-digit growth between 2019 and 2021. The total number of aircraft based at these airports has also held steady at more than 1,300. Both private business flights, and leisure and educational flight activity are fueling the growth.

In-person events also returned in 2021, including Flying Cloud Airport's Girls in Aviation Day and the AirExpo aircraft showcase, as well as the annual Father's Day pancake breakfast at both Lake Elmo Airport and Crystal Airport.

Airport	2021	2020	2020-2021 Change
Airlake (LVN)	36,259	31,314	15.8%
Anoka County-Blaine (ANE)	74,657	70,852	5.4%
Crystal (MIC)	37,845	39,509	-4.2%
Flying Cloud (FCM)	131,593	124,382	5.8%
Lake Elmo (21D)	32,645	29,799	9.6%
St. Paul Downtown (STP)	39,196	30,188	29.8%
Total	352,195	326,044	8.0%



LVN Airlake Airport

Located just south of the Minneapolis-St. Paul metropolitan area in Lakeville, Airlake Airport (LVN) mostly serves recreational fliers but is also ideally suited for business aviation, particularly for the many local businesses situated nearby.

Aircraft Operations

An unprecedented 16 percent increase in operations makes it only second to the St. Paul Downtown Airport in terms of year-over-year increases. Much of the change can be attributed to more flight school activity - a trend found across the MAC's system of general aviation

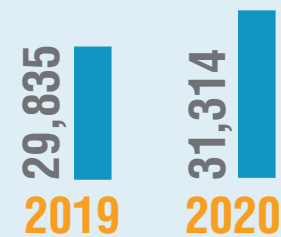
airports - and increased promotional activities by the airport's new fixed-based operator. It also helped that tenants built four new hangars on the south side of the airfield in 2021.

Infrastructure Improvements

Improvements in 2021 at LVN included the installation of an aircraft wash pad and a public restroom, both made possible by the MAC's water and sewer project that took place in 2020.

AIRLAKE (LVN)

36,259 operations



Percent change
2020-2021
15.8%

140
based aircraft

Source: MnDOT Dept. of Aeronautics



ANE Anoka County-Blaine Airport

Just north of the Minneapolis-St. Paul metropolitan area, the Anoka County-Blaine Airport (ANE) is home to a variety of vintage, experimental, recreational and corporate aircraft. Among the MAC's general aviation airports, ANE has the most aircraft based there – 365 – and is also among the busiest (just behind Flying Cloud Airport).

3M Open

Every July one of Minnesota's Fortune 100 companies, 3M, hosts the 3M Open at the PGA's tournament players club golf course in Blaine, just a 10-minute drive north of ANE. In 2021, the Goodyear Blimp paid a visit to the popular golf tournament, mooring itself at ANE

when it was not in the air. While mooring the blimp at ANE didn't impact air traffic, it certainly made for a unique visual for anyone flying into the airport during those two days.

Celebrating 25 years of safe flying

The MAC also celebrated the 25th anniversary of the opening of ANE's air traffic control (ATC) tower in 2021. The only non-FAA controlled ATC in the metropolitan area, the tower was built and is owned by the MAC, which contracts out air traffic control services to a private company. Given ANE is the second busiest general aviation airport in the MAC's system, the tower is a welcome guide for the hundreds of pilots who fly into and out of the airport every day.

ANOKA CTY-BLAINE (ANE)

74,657 operations

365
based aircraft



Source: MnDOT Dept. of Aeronautics

71,740
2019

70,852
2020

Percent
change
2020-2021
5.4%



MIC Crystal Airport

Located northwest of the Minneapolis-St. Paul metropolitan area in the city of Crystal, Crystal Airport (MIC) is home to a busy flight school, a nationally recognized aircraft parts and maintenance facility, and a regionally known propeller repair and overhaul facility. It also has the only turf runway within the metro area.

Infrastructure Improvements

The year 2021 brought to a close a significant improvement project that rightsized the airfield to better match the needs of the airport's users,

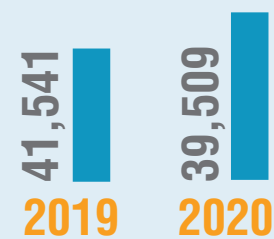
while simultaneously making it safer by reducing the number of runway crossing areas. The improvements also included construction of a self-serving fueling station, improved airfield lighting and signage, fencing and roadway improvements, and updated navigational aids.

Hangar Development

New hangar development areas were also a bright spot for MIC with three new hangars under construction or completed in 2021.

CRYSTAL (MIC)

37,845 operations



Percent change
2020-2021
-4.2%

161
based aircraft



Source: MnDOT Dept. of Aeronautics



FCM Flying Cloud Airport

Flying Cloud Airport (FCM) is the busiest airport in the MAC's general aviation system with more than 100,000 takeoffs and landings annually. Located in the vibrant city of Eden Prairie, MN, just 10 miles southwest of Minneapolis, FCM is home base for many corporate jets and four flight schools.

Operations

Despite the COVID-19 pandemic, Flying Cloud Airport has experienced steady growth over the last three years, much of it due to an increase in flight education activity. Eden Prairie is also home to two Fortune 500 companies and many other large employers that regularly use FCM for business travel.

Airfield Improvements

Sometimes seemingly small projects can make a big difference. In the case of FCM, more than 150 runway lights were converted to LEDs in 2021, saving energy and maintenance time.

In-Person Events Return

FCM has long played host to the annual AirExpo. This popular airshow returned in 2021, after taking a hiatus in 2020, drawing 15,000 visitors from all over the city, state and country.

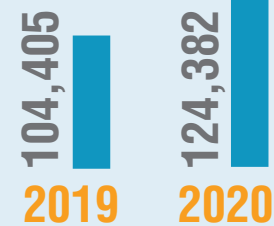
FCM was also the venue for the annual Girls in Aviation Day event that takes place in September every year. This event went virtual in 2020 but returned in 2021 with more than 1,100 participants in attendance – a record for the event in Minnesota.

MAC staff members were on hand at both these events ensuring everything went without a hitch and sharing information about the MAC and the diversity of responsibilities that can come with an airport job.



FLYING CLOUD (FCM)

131,593 operations



Percent change
2020-2021
5.8%

363
based aircraft



Source: MnDOT Dept. of Aeronautics

21D Lake Elmo Airport

Located between the city of St. Paul to the west and the St. Croix River to the east, Lake Elmo Airport (21D) is convenient for both business and leisure flying. While LVN experiences the fewest operations of the MAC's general aviation airports, it is still one of the top 10 busiest airports in Minnesota.

Runway and Airfield Improvements

Improvements to Lake Elmo Airport continued in 2021, with new runway and taxiway grading

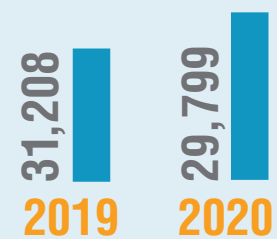
substantially complete and stormwater and electrical components installed in preparation for a new Runway 14/32.

When completed in 2022, Lake Elmo's Runway 14/32 will be 3,500-feet long. New instrument approach technology will also be in place making it usable for more aircraft more often. In whole, the airfield improvements represent a \$15-million investment in this vital public asset.



LAKE ELMO (21D)

32,645 operations



Percent change
2020-2021
9.6%

187
based aircraft



Source: MnDOT Dept. of Aeronautics

STP St. Paul Downtown

Located along the Mississippi River and just south of downtown Saint Paul, the St. Paul Downtown Airport (STP) engenders a vibrancy all its own. A popular base for corporate aircraft due to its location and for having the longest runway – 6,941 feet – in the MAC general aviation airport system, the airport also offers charter services, has two fixed-base operators and is home to a five-star rated restaurant.

Aircraft Operations

In 2021, STP experienced a resurgence with an almost 30 percent increase in operations over a very difficult 2020, when the airport saw a 26 percent decline in operations due to the effects of the COVID-19 pandemic. Much of the increase can be attributed to a rebound in private corporate activity after travel restrictions began loosening in 2021.

Bike and Pedestrian Path

On July 28, 2021, STP joined representatives from the City of Saint Paul and Dakota County

to celebrate the completion of the new Robert Piram Regional Trail, a 3.7-mile paved trail that bisects airport land on its west side. The trail connects Harriet Island in Saint Paul with Kaposia Landing Park in South St. Paul. It also provides a safe route for pedestrians and bicyclist along the Mississippi River and access to an extended network of trails and regional greenways.

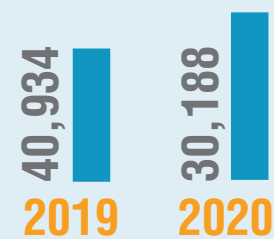
This project is an excellent example of how the MAC's general aviation airports seek out opportunities to be a part of the communities in which they are located.

Holman's Table

The airport's popular, aviation-themed restaurant continues to impress. And with in-person gatherings returning across many sectors of the economy, the restaurant reopened its private event space in February 2021.

ST. PAUL DOWNTOWN (STP)

39,196 operations



Percent change
2020-2021
29.8%

102
based aircraft



Source: MnDOT Dept. of Aeronautics





CONNECTING WITH THE COMMUNITY

The MAC's system of airports plays a vital role in stimulating a thriving and vibrant community. We work with communities through our airport advisory commissions, conduct long-range planning with our many stakeholders, organize airport events and educational programs, and discuss airplane noise with our neighbors.

Community Engagement

To better serve and communicate with Minnesota constituents and to advance our focus on community and stakeholder engagement, the MAC's website – and primary means of communication – was redesigned in 2021.

The new site incorporates best practices for navigation and search functionality, raises the visibility of career opportunities at the MAC, and consolidates the previously separate aircraft noise program site into the main site, to name a few of the enhancements. We are proud of the work we do for the community and, with this upgrade, aim to ensure our community has all it needs to fully engage with our people and our work.

During a year in which in-person events were significantly curtailed, our Stakeholder Engagement team needed to get creative with its outreach efforts. In addition to continuing to hold virtual meetings for airport advisory groups and the public, the office also developed



a series of videos featuring different types of aircraft. Called "Meet the Fleet," this series delves into the history and features of three aircraft that frequently operate out of MSP Airport, the CRJ900, the B737 and the A220.

The Stakeholder Engagement team also worked with two local non-profits to offer educational videos for students across Minnesota.

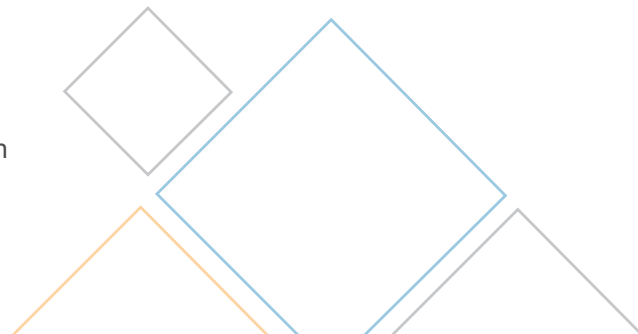
For STEMLink – Success Beyond the Classroom, the team created school-age-appropriate informational videos about airport careers – specifically in the Airport Fire and the Field Maintenance departments at the MAC. The team also produced a video for the Science Museum of Minnesota about MSP Airport's solar arrays. That video reached more than 650 students through the museum's Action for Earth campaign.

Long Term Planning

The MAC conducts ongoing long-term planning for all seven of its airports. In December, the MAC resumed its long-term planning process for MSP Airport. That process, which began in late 2019, was put on hold in 2020 and for much of 2021 so the MAC and its stakeholders could concentrate on managing the effects of the pandemic.

MSP's long-term plan will evaluate what facility improvements will be needed to accommodate projected passenger demand in a manner that considers safety, efficiency, sustainability and cost-effectiveness and that enhances the customer experience.

An important part of the process is public involvement and input, which will be solicited at various points before the plan is completed in late 2022.





THE MAC, BOARD AND SENIOR LEADERSHIP

The Minnesota Legislature created the Metropolitan Airports Commission (MAC) in 1943 to promote the efficient, safe handling of air commerce and to develop the full potential of the Minneapolis-Saint Paul metropolitan area as an aviation center.

As a public corporation of the state, the MAC generates the revenues it needs to operate through rents and user fees, not general tax appropriations. Bonding and financing authority – along with MAC-generated cash and state and federal aviation grants and fees – fund capital investments in the MAC’s seven-airport system. The organization maintains a AA minus senior bond rating, among the highest of any U.S. airport operator.

The organization is governed by a 15-member policy board. The MAC board establishes policies, ordinances and budgets and approves large expenditures.

Minnesota’s governor appoints the board chair and 12 commissioners, eight of whom represent metropolitan districts and four who represent Greater Minnesota.

The mayors of Minneapolis and Saint Paul are commissioners but may appoint a representative to serve in their place. The chair and mayoral appointees serve at the will of the elected officials who appoint them.

Board Members



Rick King
Commission Chair



Carl Crimmins
District A



Braj Agrawal
District B



James Lawrence
District C



Timothy Baylor
District D



James Deal
District E



Rodney Skoog
District F



Richard Ginsberg
District G



Yodit Bizen
District H



Leili Fatehi
City of Minneapolis



Ikram Koliso
City of Saint Paul



Patti Gartland
Outstate St. Cloud



Donald Monaco
Outstate Duluth



Dixie Hoard
Outstate Thief River Falls



Randy Schubring
Outstate Rochester



All other commissioners serve four-year, staggered terms, providing continuity when administrations change.

Two new commissioners joined the board in February 2021. James Lawrence, representing District C and Timothy Baylor, representing District D, both appointed by Gov. Tim Walz.

After 15 months of meeting virtually, the board returned to in-person meetings in July, following the cancelation of the State’s peacetime emergency declaration.

The MAC board had much to discuss and deliberate on in 2021, including continuing to contend with the economic and operational challenges brought on by the COVID-19 pandemic.

Below are a some of the notable actions the board took in 2021:

- Approving a 2021 budget (in December 2020) focused on reducing expenses and increasing efficiency
- Unanimously approving a resolution to cancel and condemn discriminatory covenants in deeds of properties purchased by the MAC
- Establishing Juneteenth as an official MAC holiday
- Supporting an airport-wide equity advisory committee, which will advise the MAC on ways to promote equity in the organization’s programs, policies, regulations and activities.

Senior Leadership Team



Brian Ryks
Executive Director
Chief Executive Officer



Roy Fuhrmann
Chief Operating Officer



Atif Saeed
Chief Financial Officer



Eduardo Valencia
Chief Information Officer



Cameron Boyd
General Counsel



Mitch Kilian
Governmental Affairs



Naomi Pesky
Strategy & Stakeholder
Engagement



Scott Zaczowski
Internal Audit



Jim Laurent
Human Resources
& Labor Relations



Chad Leque
Management &
Operations



Bridget Rief
Planning &
Development



Tim Simon
Finance & Revenue
Development

The MAC operates much like a city, with its own administrative offices and police, fire, emergency dispatch and maintenance departments. Executive Director and Chief Executive Officer Brian Ryks oversees day-to-day operations and administration of the organization.

The MAC is among the most efficient airport operators in the nation, keeping the cost to

airlines low and encouraging growth in air service and airline competition, helping to earn MSP the Air Transport Research Society’s Most Efficient Airport in its class award for the fourth time in five years. Only 12 airports globally are honored with an ATRS award.



APPENDIX

This appendix is prepared in accordance with the requirements of Minnesota Statutes Section 473.621. It presents MSP passenger and aircraft operations activity, current airport capacity in terms of operations and passenger enplanements, average length of delay statistics, and technological developments affecting aviation and their effect on operations and capacity at the airport. This appendix also includes the number of operations and based aircraft at each of the MAC's Reliever Airports in 2021 compared with 2020.

MSP Revenue Passenger Summary

Rank	Airline	2019	2020	2021	Gain/Loss 2020-2021	% Change 2020-2021
1	Delta	27,305,753	9,797,141	17,576,004	7,778,863	79.40%
2	Sun Country	2,873,671	1,508,344	2,430,940	922,596	61.17%
3	American	2,055,211	901,810	1,334,080	432,270	47.93%
4	Southwest	1,821,369	655,981	1,153,629	497,648	75.86%
5	United	1,603,161	570,061	879,559	309,498	54.29%
6	Spirit	1,160,057	443,315	488,601	45,286	10.22%
7	Alaska Airlines	337,892	107,397	216,550	109,153	101.64%
8	Frontier	501,247	173,039	177,307	4,268	2.47%
9	JetBlue	224,595	38,132	61,150	23,018	60.36%
10	Air France	71,946	0	21,245	21,245	--
11	Allegiant	--	--	20,455	20,455	--
12	KLM	97,902	15,968	17,843	1,875	11.74%
13	Icelandair	82,629	2,058	16,678	14,620	710.40%
14	Air Canada	120,308	16,941	13,538	(3,403)	-20.09%
15	Denver Air Connection	--	1,783	12,136	10,353	580.65%
16	Boutique Air	9,830	3,114	1,900	(1,214)	-38.99%
17	Air Choice One	10,413	3,771	471	(3,300)	-87.51%
18	Aer Lingus	45,178	9,622	0	(9,622)	-100.00%
19	Condor	26,102	0	0	0	0%
	Total	38,347,264	14,248,477	24,422,086	10,173,609	71.40%

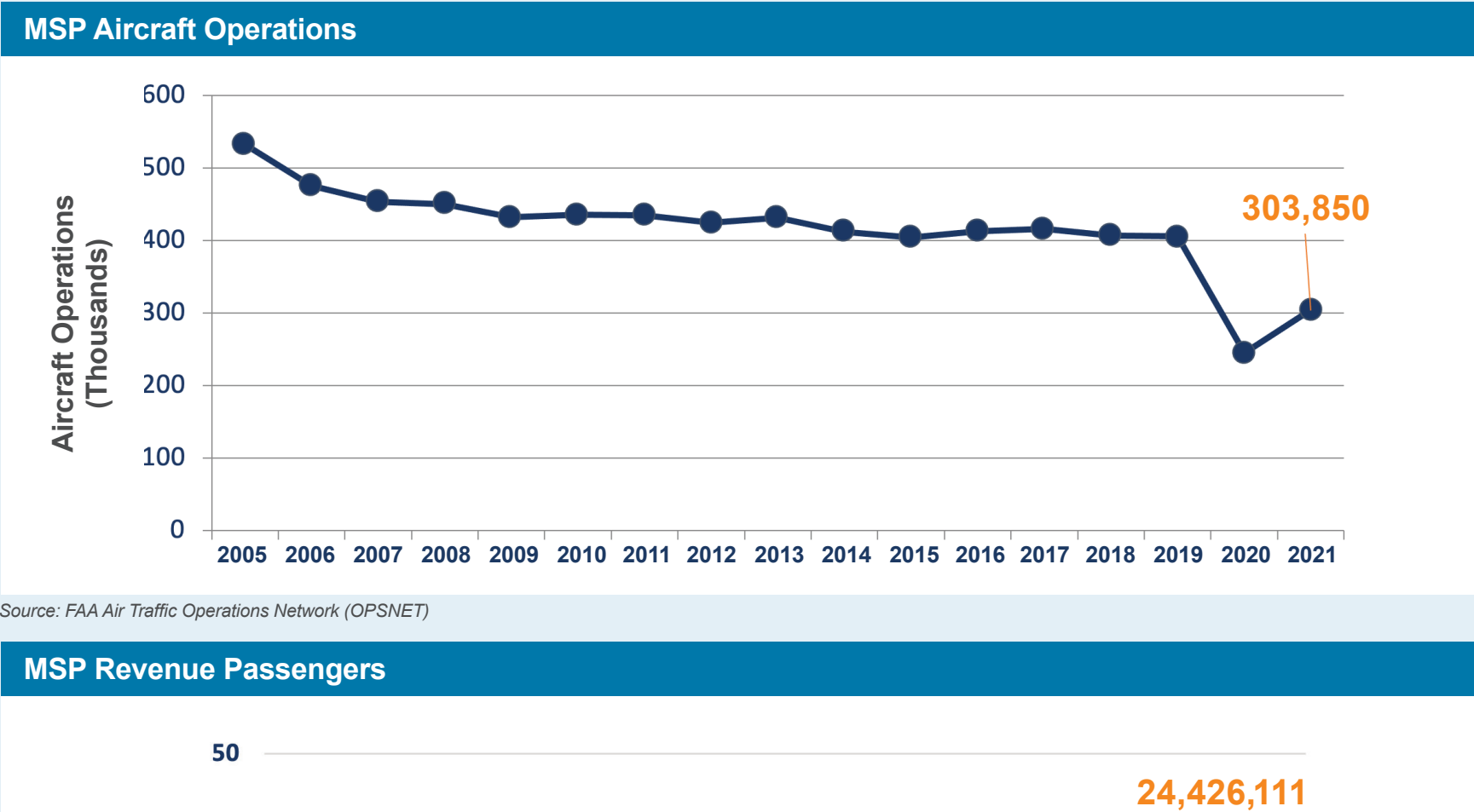
Source: MAC Year End Operations Reports – 1-27-2022. Note, this chart reflects numbers of paying, non-charter passengers only. Each year's totals are greater if you also count revenue charter passengers and non-revenue passengers such as airline employees with flight benefits.

MSP Revenue Passenger Market Share					
Rank	Airline	2019	2020	2021	Gain/Loss 2020-2021
1	Delta	71.21%	68.79%	71.97%	3.18%
2	Sun Country	7.49%	10.59%	9.95%	-0.64%
3	American/US Airways	5.36%	6.29%	5.46%	-0.83%
4	Southwest/AirTran	3.03%	4.61%	4.72%	0.11%
5	United	4.18%	4.00%	3.60%	-0.40%
6	Spirit	4.75%	3.11%	2.00%	-1.11%
7	Alaska Airlines	0.88%	0.75%	0.89%	0.14%
8	Frontier	1.31%	1.22%	0.73%	-0.49%
9	JetBlue	0.59%	0.27%	0.25%	-0.02%
10	Air France	0.19%	0.00%	0.09%	0.09%
11	Allegiant	--	--	0.08%	0.08%
12	Icelandair	0.22%	0.01%	0.07%	0.06%
13	KLM	0.26%	0.11%	0.07%	-0.04%
14	Air Canada	0.31%	0.12%	0.06%	-0.06%
15	Denver Air Connection	--	0.01%	0.05%	0.04%
16	Boutique Air	0.03%	0.02%	0.01%	-0.01%
17	Aer Lingus	0.12%	0.07%	0.00%	-0.07%
18	Air Choice One	0.03%	0.03%	0.00%	-0.03%
19	Condor	0.07%	0.00%	0.00%	0.00%

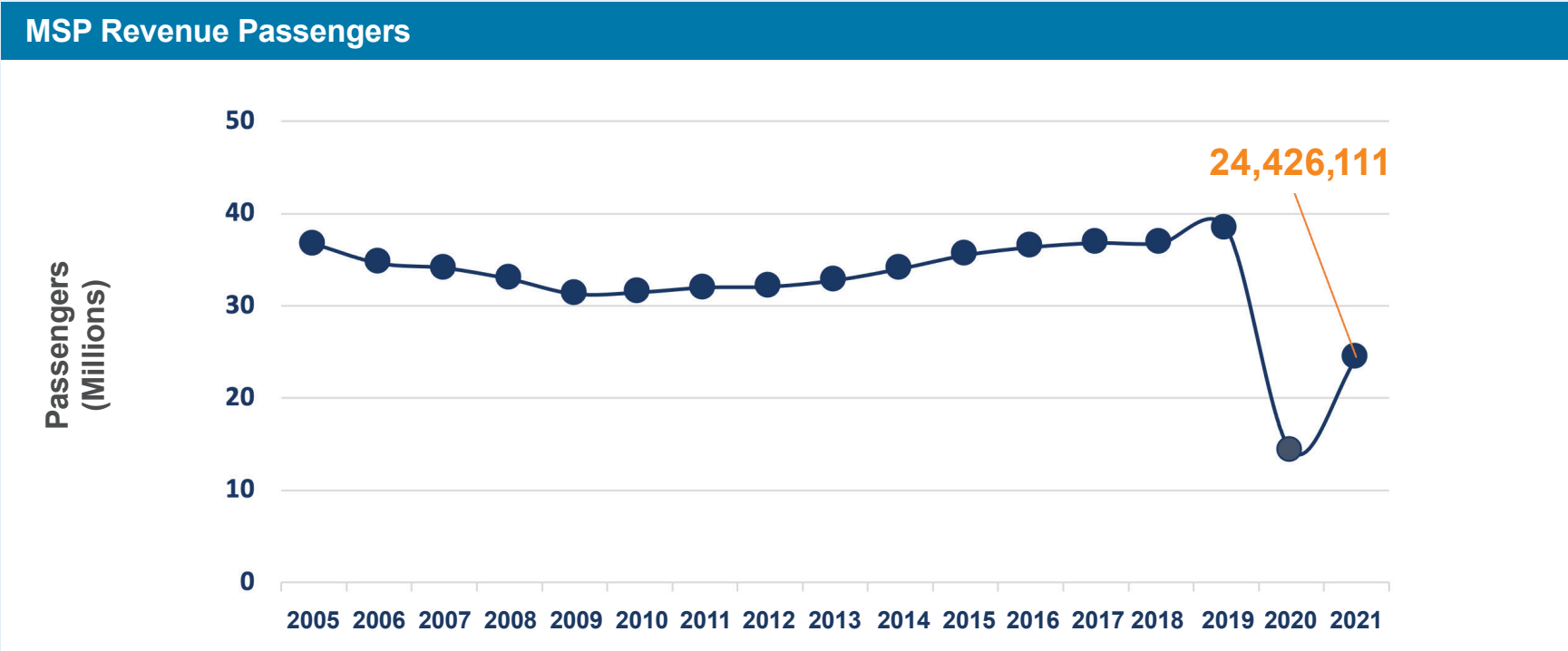
Source: MAC Year End Operations Reports –1-27-22

MSP Airport Operations					
Year	Air Carrier	Air Taxi	Itinerant General Aviation	Military	Total Operations
2014	292,445	105,606	11,272	2,437	411,760
2015	303,357	86,497	11,691	2,829	404,374
2016	311,271	87,198	11,489	2,940	412,898
2017	319,278	82,861	11,521	2,043	415,703
2018	321,650	72,609	10,081	2,573	406,913
2019	329,323	64,980	9,732	2,038	406,073
2020	199,558	38,508	4,935	1,876	244,877
2021	246,474	48,160	6,878	2,372	303,884

Source: FAA Air Traffic Operations Network (OPSNET)



Source: FAA Air Traffic Operations Network (OPSNET)



Source: MAC Year End Operations Reports - 1-27-2022. Note, this chart reflects numbers of paying, charter and non-charter passengers. Each year's totals are greater if you also count non-revenue passengers such as airline employees with flight benefits.

Airfield Capacity

Airfield capacity is typically described in terms of hourly capacity and annual capacity under various weather conditions. The table below reflects the hourly capacity for MSP in optimum, marginal and poor weather conditions.

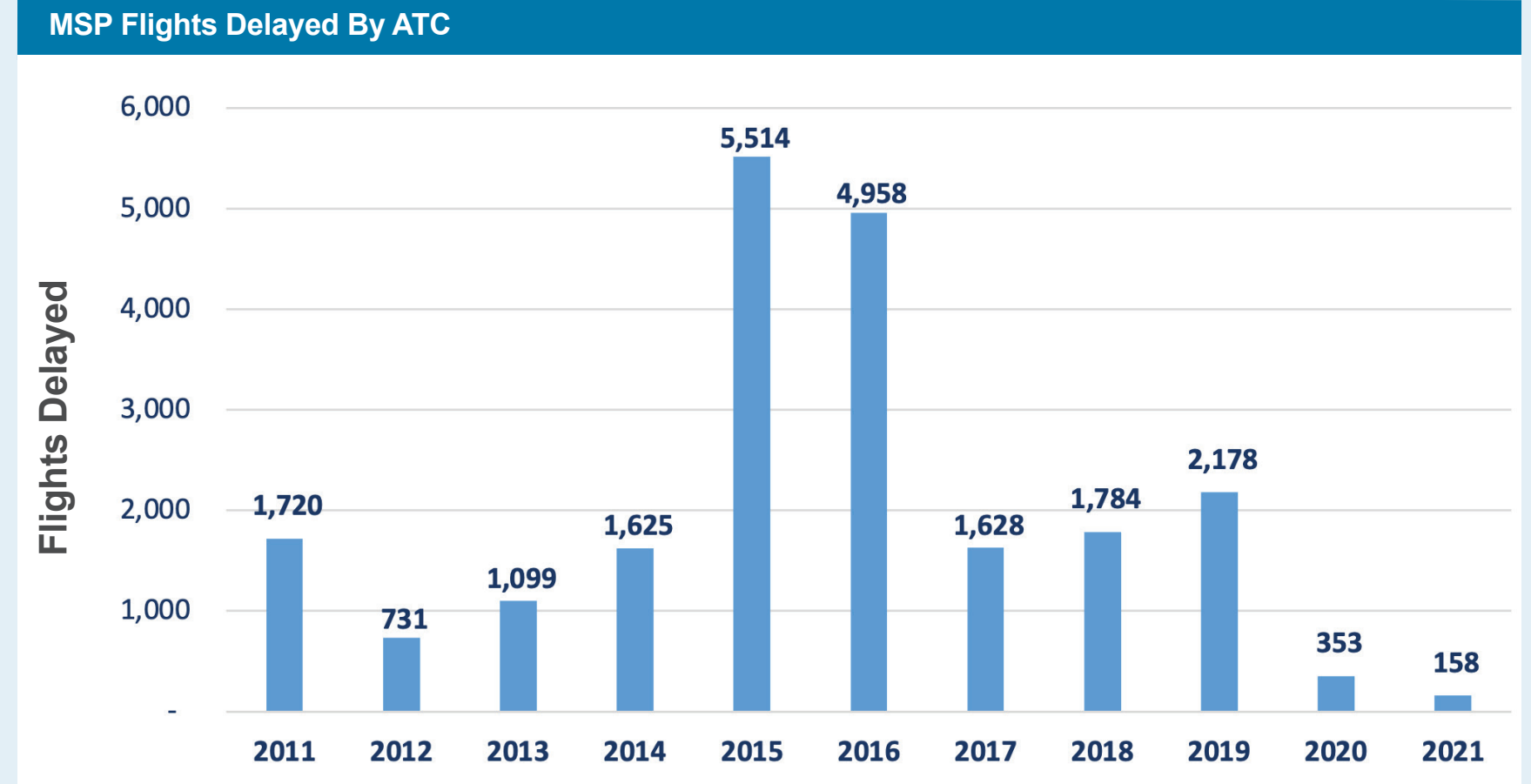
MSP Airfield Capacity	
Weather Conditions	Operations per hour
Optimal Rate (1).....	158
Marginal Rate (2)	146
IFR Rate (3)	114

Notes:
 (1) Ceiling and visibility above minima for visual approaches.
 (2) Below visual approach minima but better than instrument conditions.
 (3) Instrument flight rules (IFR) are required in meteorological conditions with a cloud ceiling less than 1,000 feet or visibility less than 3 miles.

Source: Federal Aviation Administration Air Traffic Control Tower Analysis

MSP’s current airfield capacity is 158 aircraft operations in optimum conditions. When instrument flight rules are being used due to low-level, heavy cloud cover and/or low visibility capacity drops to 114 operations.

Airfield Delay



Notes: Beginning in 2015, RNAV arrival procedures and Converging Runway Operations were implemented at MSP.
 Source: FAA Air Traffic Operations Network (OPSNET)

The FAA Air Traffic Operations Network (OPSNET) database counts flights that were reported by Air Traffic Control (ATC) to be delayed for more than 15 minutes. The chart above depicts the annual number of MSP flights delayed by ATC in 2011 through 2021.

The FAA combines arrival and enroute delays into one category, and reports delays for aircraft that accumulate 15 minutes or more holding delay at each facility throughout the entire route of flight. Delays of fewer than 15 minutes are not counted, nor are delays not initiated by ATC.

In 2021, there were 158 delayed flights at MSP, which is a decrease of 195 flights when compared to 2020.

The MAC has initiated a Long-Term Plan update for MSP that will assess future facility requirements necessary to meet projected passenger and aircraft operation demand. A component of the Plan will quantify current and future airfield delay statistics to determine the capacity of the current MSP airfield. The Plan will also consider potential airfield alternatives designed to efficiently accommodate future demand. The Plan is expected to be completed in 2022.

Airfield Delay per Aircraft Operation

When calculating the average delay per flight operation, delay is averaged by each flight's taxi time and airborne time. The total averaged delay is expressed in minutes of delay per operation. The current industry standard for estimating delay is established by the FAA Aviation System Performance Metrics (ASPM). The FAA uses ASPM results to create performance benchmarks for airports each year. Since 2005, use of ASPM

data has been a well-supported methodology to calculate aircraft delays, accepted by both government and industry, as the most valid, accurate and reliable metric¹.

When compared to other large hub U.S. airports as shown in the table below, MSP ranked 39th with an overall average delay of 4.4 minutes in 2021; in 2020 MSP ranked 28th with an overall average delay of 4 minutes.

Top 20 Large Hub Airports with Highest Average Total Delay per Operation 2020-2021

Rank	Airport	2021 Total Airports Operations	2021 Average Minutes of Delay per Operation	2020 Average Minutes of Delay per Operation	2020 Rank	Change from 2020 to 2021
1	CLT	514,782	10.3	9.6	1	0.7
2	ORD	684,201	9.9	8.3	3	1.6
3	DFW	651,895	8.6	8.4	2	0.2
4	EWR	292,433	8.6	6.9	4	1.7
5	SEA	374,510	7.8	6.3	7	1.5
6	PHL	268,884	7.5	6.1	8	1.4
7	IAH	395,787	7.4	6.8	5	0.6
8	IAD	245,805	6.9	5.5	9	1.4
9	DEN	588,855	6.6	5.5	10	1.1
10	MIA	387,973	6.2	4.2	21	2.1
11	MCO	319,185	6.2	4.5	17	1.7
12	DAL	211,330	6.0	3.9	30	2.1
13	DCA	173,898	5.9	5.3	11	0.6
14	JFK	303,397	5.7	4.5	18	1.2
15	LGA	187,578	5.7	6.7	6	-1.0
16	LAX	506,769	5.6	4.4	19	1.2
17	PHX	408,285	5.5	4.6	16	0.9
18	BUR	125,429	5.3	4.0	25	1.3
19	MEM	215,789	5.2	5.2	12	0.0
20	ANC	285,887	5.2	5.0	14	0.2
39	MSP	303,884	4.4	4.0	28	0.4

Source: FAA Aviation System Performance Metrics ¹Prior to 2005, the industry standard was the FAA's Consolidated Operations and Delay Analysis System (CODAS); the U.S. Department of Transportation (DOT) Airline Service Quality Performance (ASQP) data were used to compare optimal versus actual taxi and flight times for MSP.

Technological Developments and Capacity Enhancements at MSP

The FAA continuously explores potential capacity-enhancing development/technology to increase airport efficiency and reduce delay. When advances are identified, efforts are made to implement the technology at the busiest airports. This section describes these efforts as they apply to MSP.

Installation of ASDE-X at MSP was completed in 2009 and provides seamless coverage for complete aircraft identification information. This equipment also allows for future implementation and upgrade to Next Generation (NextGen) navigation technology (Automatic Dependence Surveillance – Broadcast, “ADS-B”); ADS-B uses a Global Navigation Satellite System to broadcast critical information.

In 2021, aircraft operating at MSP were equipped with ADS-B/Cockpit Display of Traffic Information (ADS-B/CDTI) technology per federal policy for aircraft operating in capacity-constrained airspace, at capacity-constrained airports (including MSP) or in any other airspace deemed appropriate by the FAA.

Ongoing Precision Instrument Approach Capabilities

In addition to runway separation and configuration, airfield capacity can be affected greatly by how the runways are equipped for inclement weather. A number of precision instrument approaches continue to be available at MSP as summarized in the table to the right.

Precision Instrument Approaches

MSP	CAT 1	CAT 2	CAT 3
Runways	30R	30L	12L
			12R
			35

Notes: The term decision height is defined as the height at which a decision must be made during a precision approach to either continue the landing maneuver or execute a missed approach.

Precision approaches are categorized based on decision height and the horizontal visibility that a pilot has along the runway. Visibility values are expressed in statute miles or in terms of runway visual range (RVR) if RVR measuring equipment is installed at an airport. The different classes of precision instrument approaches are:

- i. Category I (CAT I) – provides approaches to a decision height down to 200 feet and a basic visibility of $\frac{3}{4}$ statute miles or as low as 1,800 feet runway visual range (RVR).
- ii. Category II (CAT II) – provides approaches to a decision height down to 100 feet and an RVR down to 1,200 feet.
- iii. Category IIIa (CAT IIIa) – provides approaches without a decision height (down to the ground) or a decision height below 100 feet and an RVR down to 700 feet.
- iv. Category IIIb (CAT IIIb) – provides approaches without a decision height or a decision height below 50 feet and an RVR down to 150 feet.
- v. Category IIIc (CAT IIIc) – provides approaches without a decision height and RVR. This will permit landings in “0/0 conditions,” that is, weather conditions with no ceiling and visibility as during periods of heavy fog.

Source: MSP Airfield Operations, FAA

The MAC Reliever Airports

The MAC's six general aviation reliever airports are open for public use 24 hours per day. Aircraft operators must choose an airport at which to base their aircraft. Airports in Minnesota are required to submit to the State a report that identifies the aircraft based at their facilities for 180 days or more. The tables below show the 2020 and 2021 reliever airport

operations and reliever airport based aircraft. The operations totals are obtained from the FAA for MAC reliever airports with an air traffic control tower. For the two reliever airports without an air traffic control tower (LVN and 21D), the operations totals are estimated through various methods and available data.

Reliever Airport Operations							
Airport	LVN	21D	MIC	STP	FCM	ANE	ANNUAL TOTAL
2020	31,314	29,799	39,509	30,188	124,382	70,852	326,045
2021	36,259	32,645	37,845	39,196	131,593	74,657	352,195
YY Comparison 2021-2020	4,945	2,846	(1,664)	9,008	7,211	3,805	26,150

Source: MAC Noise and Operations Monitoring System (MACNOMS), MAC Reliever Airports, and FAA Air Traffic Operations Network. 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.

Reliever Airports Based Aircraft							
Airport	LVN	21D	MIC	STP	FCM	ANE	ANNUAL TOTAL
2020	140	187	161	91	363	365	1,307
2021	140	187	161	102	363	365	1,318
YY Comparison 2021-2020	-	-	-	11	-	-	11

Source: MAC Reliever Airports

LVN = Airlake | **21D** = Lake Elmo | **MIC** = Crystal | **STP** = St. Paul Downtown | **FCM** = Flying Cloud | **ANE** = Anoka County-Blaine

MSP AIRPORT NAMED BEST AIRPORT IN NORTH AMERICA



The Airport Service Quality award is based on travelers' satisfaction scores as reported to Airports Council International. Thank you to all the employees, volunteers and passengers for making MSP the best of the best.

Category: 25-40 million passengers



Minneapolis-St. Paul International • Airlake • Anoka County-Blaine • Crystal • Flying Cloud • Lake Elmo • St. Paul Downtown

6040 28th Avenue South, Minneapolis, MN 55450 | (612) 726-8100 | metroairports.org