

SUMMARY OF FINDINGS

SYSTEM EVALUATION

Comprehensive analysis revealed adequacies, deficiencies, and overlaps for the current airport system. System performance measures guided the system evaluation process. Each performance measure has a set of quantifiable benchmarks which determine current performance. Results are used to establish targets for future system performance.

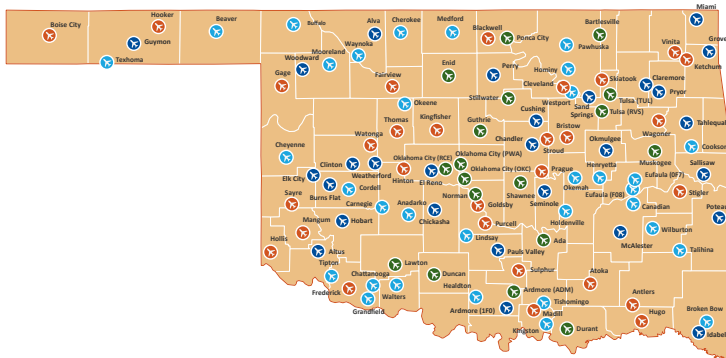
OKLAHOMA SYSTEM PERFORMANCE MEASURES	A SYSTEM THAT IS SAFE
	A SYSTEM THAT IS EFFICIENT
	A SYSTEM THAT IS ACCESSIBLE
	A SYSTEM THAT SUPPORTS THE ECONOMY
	A SYSTEM THAT MEETS USER NEEDS

AIRPORT ROLES AND FACILITY SERVICE OBJECTIVES

Each airport in Oklahoma plays a different role in their community based on the aircraft and customers it serves. Detailed investigation scored and ranked each airport to establish its system role as either a National Business, Regional Business, General, or Community airport. Each role category has facility and service objectives considered desirable for meeting user needs. Each airport's report card shows projects needed to meet system plan objectives. Report cards also reflect additional investment to address airport identified projects.

AIRPORTS IN OKLAHOMA ARE ASSIGNED TO ONE OF FOUR STATE ROLES:

- NATIONAL BUSINESS
- GENERAL
- REGIONAL BUSINESS
- COMMUNITY



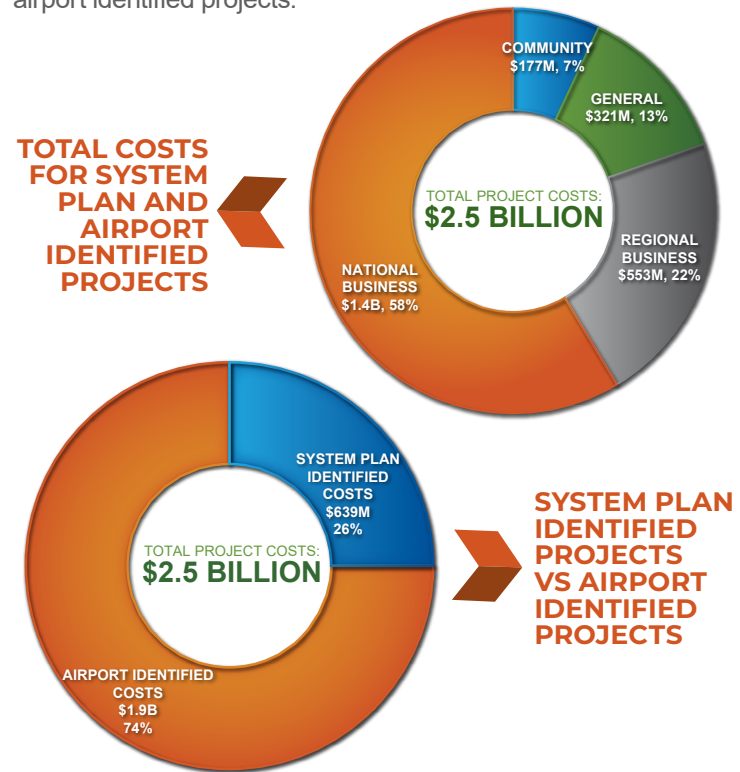
CONCLUSIONS

ESTIMATED COSTS

The Oklahoma airport system currently functions at a relatively high level, but if airports are able to meet their individual facility and service objectives, that performance could improve.

The final step in the system plan was to develop planning level cost estimates associated with improving system airports to meet their facility and service objectives. In addition, information was collected from study airports to identify other projects they plan to implement. Combining system plan identified projects with airport identified projects provides a more holistic understanding of the system's financial needs in the next 20 years.

Costs were summarized by airport role and allocated to show the costs needed to implement system plan identified projects and airport identified projects.



POTENTIAL FUNDING GAP

Considering all investment needs, an average of **\$125.1 million** would be needed in each of the next 20 years to fully address the identified costs. Review of historic and anticipated FAA, state, and local funding sources shows an average of **\$85.8 million** in funding could be available if current funding levels continue. This leaves a potential annual funding gap of **\$39.2 million**; considering this gap, it is important that available funding be strategically invested. It is also important to note that while the airports have an annual investment need of **\$125.1 million**, the airports return an estimated **\$10.6 billion** to the state's economy each year.

The system plan provides important information to OAC, helping to direct available funding to airport projects most essential to meeting the state's transportation needs and economic objectives.

FOR MORE INFORMATION CONTACT

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OKLAHOMA AIRPORT SYSTEM PLAN

MADILL MUNICIPAL AIRPORT MADILL, OKLAHOMA



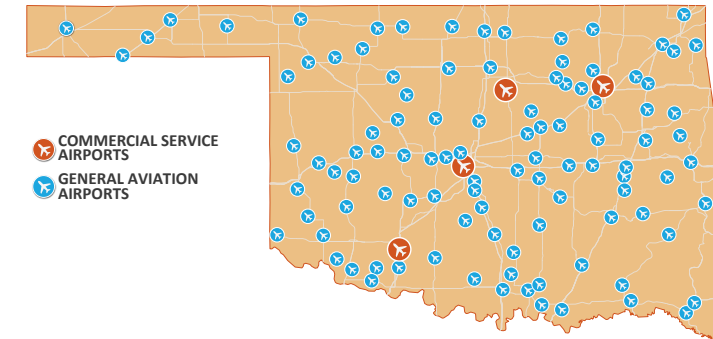
In late 2020, the Oklahoma Aeronautics Commission (OAC) undertook a comprehensive update to its State Airport System Plan. The plan was completed in 2022. This report summarizes major statewide findings, but it focuses primarily on the findings and recommendations from the plan for **Madill Municipal Airport**.

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OKLAHOMA AIRPORT SYSTEM PLAN

The update to the Oklahoma Airport System Plan followed Federal Aviation Administration (FAA) guidelines. Airports in Oklahoma provide businesses, residents, and visitors with a high level of accessibility to a wide variety of airports and aviation services. Implementing strategic improvements and focused investment recommendations from the plan can elevate the airport system's current performance.

OKLAHOMA'S STATE AIRPORT SYSTEM



SYSTEM CHARACTERISTICS

- 108 total system airports**
- 4 airports with commercial airline service**
- 104 general aviation airports**
- 90% of airports included in FAA's National Plan of Integrated Airport Systems (NPIAS)**

Airports included in the NPIAS are eligible for FAA funding. FAA, OAC, and airport sponsor partnerships are important for maintaining and improving the airport system.

INVENTORY

The plan started with a comprehensive inventory effort; information was collected on airport activity, facilities, and services. Special inventory efforts focused on:

- Airport control of runway protection zones (RPZs)**
- Runway safety areas (RSAs) meeting FAA standards**
- Parallel runways/taxiways meeting separation standards**
- Primary runways with clear 20:1 approaches**
- Airports with property open for development**
- Hangar storage and general aviation terminal building characteristics**

Data collected as part of the system plan is stored in a Geographic Information System database; the database is accessible at oac.ok.gov.

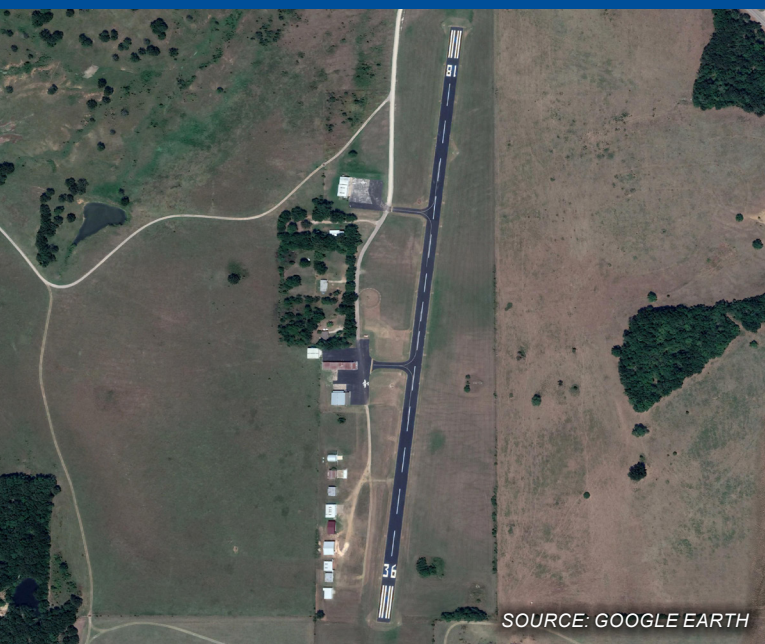


OKLAHOMA AIRPORT SYSTEM PLAN



OVERVIEW

The system plan identifies strategies for improving Oklahoma's 108 commercial and general aviation airports. Each airport's improvements identified in the system plan are focused on helping the airport meet its designated role in the state system. By implementing individual airport recommendations, a higher level of system-wide performance will be achieved. System plan findings and recommendations for **MADILL MUNICIPAL AIRPORT** are discussed in this report.



SOURCE: GOOGLE EARTH

MADILL MUNICIPAL AIRPORT (1F4)

MADILL, OKLAHOMA

KEY AIRPORT CHARACTERISTICS

- FAA/NPIAS ROLE: LOCAL
- STATE ROLE: GENERAL
- OWNER: CITY OF MADILL
- PRIMARY RUNWAY: 18 / 36
- APPROACH TYPE: PUBLISHED
- BASED AIRCRAFT: 19
- SERVICES: -



AIRPORT ROLE

The system plan included detailed analysis to establish a role for each airport. The analysis assigned the **Madill Municipal Airport** to the General role category. To determine the airport's role assignment, the following factors were considered:

- Total based aircraft, annual operations, and business jet activity
- Runway length, approach type, and air traffic control tower
- Airport reference code (ARC) and fuel type
- Community size and support, along with federal airport role
- Historic and projected rate of population and employment growth
- Business ready characteristics and annual economic impact

MADILL MUNICIPAL AIRPORT



GENERAL AIRPORT CHARACTERISTICS

- MINIMUM RUNWAY LENGTH OBJECTIVE:** 4,000 FEET
- MARKETS SERVED:** PREDOMINANTLY SERVE SMALLER MID-SIZED COMMUNITIES IN OKLAHOMA
- AIRCRAFT SUPPORTED:** TWIN-ENGINE PLANES AND SMALL BUSINESS JETS
- SUITED FOR:** TRAVEL TO REGIONAL DESTINATIONS
- PRIMARY RUNWAY:** SERVED BY A PUBLISHED APPROACH
- FACILITY/SERVICE OBJECTIVES:** A PUBLIC TERMINAL AND 100LL FUEL

FACILITY AND SERVICE OBJECTIVES

Airports in Oklahoma should ideally be equipped with facilities and services to fulfill their designated role in the state airport system. As part of the system plan a report card was developed for each airport. The report card compares current facilities and services to those for each airport's recommended role and any deficiencies are noted. Costs to address most noted deficiencies are also identified in the plan.

INVESTMENT TO SUPPORT AIRPORT IMPROVEMENT

Over the next 20 years, a total cost of **\$15.9 million** was identified to improve the **Madill Municipal Airport**. These costs include those needed to address both system plan and airport identified projects.

On an average annual basis, it is estimated that at least **\$800,000** will be needed to improve and maintain the airport. According to an OAC study, the airport has **\$480,000 in annual economic impact**. This benefit should be considered to provide context for the airport's estimated annual financial need.

FINDINGS FOR MADILL MUNICIPAL AIRPORT

Ideally, all airports should be improved to meet their system plan identified projects. Prior to implementation, some projects will require demand justification, master planning, environmental analysis, and engineering/permitting. Some airports may have constraints that preclude them from developing all system plan identified projects.

A snapshot of some of the more notable projects identified for **Madill Municipal Airport** follows. Appendix C of the System Plan's Technical Report contains a complete listing of airport and system plan identified projects for the airport.

1F4 PROJECTS FOR CONSIDERATION	INSTALL 2 BOX PAPIS
	INSTALL AWOS
	OBTAIN JET A & AVGAS FUEL
	ACQUIRE LAND FOR NEW RUNWAY*
	CONVERT RUNWAY INTO TAXIWAY*

*Indicates airport identified project

AIRPORT REPORT CARD FOR MADILL MUNICIPAL AIRPORT

AIRPORT ROLE: GENERAL (HIGH ACTIVITY)		AIRPORT NAME: MADILL MUNICIPAL		CITY: MADILL		LOCID: 1F4		
FACILITIES	OBJECTIVE	ACTUAL	MEETS OBJECTIVE	IMPROVEMENT NEEDED	ESTIMATED COST			
AIRSIDE FACILITIES								
Airport Reference Code	B-1	B-1 Small	No	Meet B-1 ARC Standards				
Primary Runway Length	4,000 ft	3,005 ft	No	Lengthen Runway 995 ft	\$3,980,000			
Primary Runway Width	75 ft	60 ft	No	Widen Runway 15 ft	\$1,352,250			
Taxiway Type	Partial Parallel & Turnaround	No Turnarounds	No	Construct Parallel TWY**	\$600,000			
Runway Lighting	MIRL	MIRL	Yes	-				
Taxiway Lighting	MITL	None	No	Install MITL	\$150,000			
Approach Type	Non-Precision	LNAV	Yes	-				
Approach Lighting System	Not an Objective	None	Not an Objective	-				
Rotating Beacon	Yes	Yes	Yes	-				
Segmented Circle	Yes	Yes	Yes	-				
Wind Cone	Yes	Yes	Yes	-				
Visual Guidance Slope Indicator	2 box PAPI both RWY ends	Neither End	No	Install 2 Box PAPI on both RWY Ends	\$80,000			
Runway End Identifier Lights	On RWY end with Approach	Both Ends REILs	Yes	-				
Weather Reporting	AWOS or ASOS	None	No	Install AWOS or ASOS	\$170,000			
Primary RWY PCI	70	100	Yes	-				
Weight Capacity	12,500 SW or 30,000 DW	8,000 SW	No	Increase Weight Bearing Capacity	\$3,245,400			
Covered Storage	100% of Forecasted Based AC	100%	Yes	-				
Ramp Area	7,000 SY (10 spaces)	2,000 SY	No	Increase Ramp Size by 5,000 SY	\$450,000			
GENERAL AVIATION FACILITIES								
Terminal Building	1,500 sqft	4,500 sqft	Yes	-				
Restroom (24/7 or key code)	Yes	Yes	Yes	-				
Conference Area	Not an Objective	No	Not an Objective	-				
Pilot's Lounge	Yes	Yes	Yes	-				
Office Space for Airport Manager	Not an Objective	No	Not an Objective	-				
Public Waiting Area	Not an Objective	Yes	Not an Objective	-				
SERVICES								
Fuel	AvGas and Jet A	No Fuel	No	Add AvGas & Jet A	\$840,000			
Jet Fuel (24/7 trucking)	Not an Objective	No	Not an Objective	-				
Fixed-Base Operator	Not an Objective	No	Not an Objective	-				
Aircraft Maintenance	Not an Objective	No Maintenance	Not an Objective	-				
Ground Transportation	Yes	Yes	Yes	-				
Overnight Aircraft Storage	Not an Objective	No Data	Not an Objective	-				
GPU	Not an Objective	No	Not an Objective	-				
LAV Service Cart	Not an Objective	No	Not an Objective	-				
COMPLIANCE WITH FAA GUIDANCE								
RPZ Control	Airport Controls all RPZs	Full Control	Yes	-				
RSA Standards	Compliance with RSA Standards	120' x 240' beyond RWY end	Yes	-				
Runway/Taxiway Separation	150 ft	N/A	-	-				
Height Zoning	Jurisdiction with Height Zoning Ordinance	Madill/Marshall - Yes	Yes	-				
20:1 Surface Obstructions	20:1 Surface Clear of Obstructions	Obstruction on RWY Ends 18 / 36	No	Address Obstruction on RWY Ends 18 / 36	\$213,000			
*Costs are provided only if available from airport identified project list ** Airport identified project and cost substituted for OASP project					System Plan Project Cost Subtotal:	\$11,081,000		