

# MASTER PLAN



### **Master Plan Elements**

The Master Plan is a **20-year plan** to understand the needs of current and future users of the airport. This is important to ensure that **safe and orderly development** of the airport occurs in a manner that is **reflective of community values and goals**. This plan is developed through a **purposeful, inclusive and educational process**.



#### **Key Features**

- Planning is not prejudicial or constrained no predetermined outcomes
- Plan must be based on current conditions, community input, FAA design standards, and forecasts

### How We Master Plan....

	INVESTIGATION	SOLUTIONS	IMPLEMENTATION
	PRE-PLANNING	FACILITY REQUIREMENTS	FINANCIAL PLANNING
ASTER	FORECASTS & PLANNING	ALTERNATIVE ANALYSIS	IMPROVEMENT PLAN (CIP)
LAN ROCESS	ACTIVITY LEVELS	CONTINGENCY SCENARIO DEVELOPMENT	FINAL MASTER PLAN DOCUMENTATION
		IDENTIFICATION OF PREFERRED ALTERNATIVES	AIRPORT LAYOUT PLAN (ALP)
	PREPARATION	EVALUATION	DOCUMENTATION

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# **Visioning Exercise**

**10-year** visioning to consider the opportunities that lay ahead and how they may **influence** how the Airport is **developed** and **operated** in the future.

#### Vision Statement....





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#### Inventory

Category	Elements
Airfield Facilities	Runway, taxiways, lighting Grand Boulder Brownfield 76 Colorado Plains Regional Airport
Landside Facilities	Terminal building, aprons, tiedowns, cargo/other operations, airfield maintenance equipment, fuel farm, access roadways, auto parking, and other facilities
Airspace System	Air traffic service area, communications, airspace, navigational aids, airspace surfaces
Airport Setting	Socioeconomic, land use, future development initiatives, area geopolitical topics
Environmental Setting	Air quality, noise, biological resources, cultural
Other Data	Operational data, financial data, aerial survey/AGIS



# What does the Airport mean to...?

Stakeholder	Meaning
Community/Residents	<ul> <li>Flight training</li> <li>Jobs in aviation/technology</li> <li>Access to medical evacuation services</li> <li>Connection to energy and agriculture businesses</li> <li>Reaching beyond Akron</li> </ul>
Businesses	<ul> <li>Pro-business attitude to attract entrepreneurs</li> <li>Agriculture support facilities – quarantine for Ag freight</li> <li>UAV opportunities</li> </ul>
Transients	<ul> <li>Pilot facilities and services, at a competitive price</li> <li>Specialized aircraft maintenance, fosters other aspects of maintenance</li> <li>Similar case study – Uvalde, TX</li> <li>Excellent airfield capabilities within a large region</li> </ul>
Based Aircraft Owners and Tenants	<ul> <li>Pilot facilities and services, at a competitive price</li> <li>Aircraft fuel, maintenance and storage</li> <li>Excellent airfield capabilities</li> <li>Pilot proficiency, training</li> </ul>

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#### **Based Aircraft Forecast**



Year	High Growth	Medium Growth	Low Growth	No Growth
2015	13	13	13	13
Projectio	ons			
2021	15	14	13	13
2026	17	15	14	13
2031	19	16	14	13
2036	22	17	14	13
AAGR	2.7%	1.2%	.5%	0%



### **Aircraft Operations Forecast**

Year	High Growth	Medium Growth	Low Growth	No Growth	Operations per Based Aircraft
2015	17,080	17,080	17,080	17,080	1,313 (ratio)
Project	ions				
2021	19,043	18,130	17,686	17,080	18,130
2026	21,232	19,244	18,314	17,080	19,244
2031	23,673	20,427	18,964	17,080	20,427
2036	26,394	21,682	19,637	17,080	21,682
AAGR	2.2%	1.2%	.7%	0%	1.2%





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# **Airport Reference Code**



- Based on:
  - Aircraft with at least 500 operations per year
  - Aircraft's approach speed and wing span/tail height
- Citation Excel: B-II
- Various ARC's have different runway design standards
- AKO is designed for C-III aircraft
  - Previously had commercial airline opportunities
  - Retain C-III as an Ultimate to preserve opportunities

Helps wind coverage

### **Runway Orientation - Wind Analysis**

- Wind Coverage percentage of time crosswind components are below an acceptable velocity (B-II: 13 knots)(C-III: 16 knots)
- FAA AC 150/5300-13A states "desirable wind coverage for an airport is 95%"

#### Current Runway Wind Coverage

	10.5 knots	13 knots	16 knots	20 knots
All WX	76.83%	86.05%	94.23%	98.3%
IFR	73.48%	81.88%	90.52%	96.87%
VFR	79.41%	88.23%	95.71%	98.83%

#### Ultimate Runway Wind Coverage

	10.5 knots	13 knots	16 knots	20 knots
All WX	95.12%	98.49%	99.53%	99.9%
IFR	94.31%	97.73%	99.16%	99.79%
VFR	95.66%	98.81%	99.67%	99.93%

With additional crosswind Runway 1/19





# **Facility Requirements**

Facility	Future Requirement	Justification
Terminal Construction	New terminal building, access and parking	Create a safer, more updated space for customers
Apron Reconstruction	Pave a new apron for existing and future aircraft	Increase safety and reduce foreign object debris (FOD)
Hangar Development	T-hangar and box hangar development	As demand warrants
Runway Development	Ultimate - crosswind runway to meet FAA wind coverage recommendations. Future - shift Runway 11/29 while maintaining width	Maintain width and ARC C-III as a regional resource and benefit to airport users. Crosswind runway to meet wind coverage
Approach Capabilities	Lower instrument approach visibility minimums to ¾-mile	Address needs of existing users and attract others during adverse weather conditions
Taxiway Improvements	Extend taxiway the full length of the runway and other enhancements	Increase safety and airfield efficiency. Meet design standards
Maintenance Equipment Storage	Storage building for airfield maintenance equipment	Needed if airfield maintenance responsibilities were to shift to AKO
Airfield Perimeter Fencing	Supplement existing fencing near terminal building to encompass entire airport property	Security and wildlife management
In-fill Development	Hangar and non-aeronautical development within vacant spaces	Development where practical

# **Airfield Alternatives**

#### Various airfield configurations studied:

- No Change
- Shift Runway for Safety Areas
- Shift Runway for Safety Areas and RPZ
- B-II, Lower Minimums
- Crosswind Runway
  - Crosswind Turf Runway



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# **Preferred Airfield Alternative**

#### Staged Approach:

- Future: B-II, Lower Minimums on Rwy 11
- Extend Taxiway to Full Length
- Ultimate: C-III, Shift Runway for Safety Areas
- Ultimate: Crosswind Turf Runway



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### **Terminal Area Alternatives**

#### Various terminal area configurations studied:

- Renovate Existing
- New North/Central
- New South/Central
- New North/East



# **Preferred Terminal Area Alternative**



- Meets Design Requirements
- Meets/Exceeds
   Demand
- Minimal Impact During Construction
- Visibility and Convenient Access
- Uses Existing Apron

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### **Cost Estimates**

	Timing	FAA/State Cost*	Town/Private Cost	Total Cost
Airfield Development:				
Future: B-II, Lower Minimums Rwy 11	Future	Minimal	Minimal	Minimal
Extend Taxiway A to Full Length	Future	\$ 5,415,000	\$ 285,000	\$ 5,700,000
C-III, Shift Runway for Safety Areas	Ultimate	2,280,000	120,000	2,400,000
Crosswind Turf Runway	Ultimate	2,128,000	112,000	2,240,000
Terminal Area Development:				
North/East Terminal Expansion	Future	8,700,000	3,800,000	12,500,000
TOTAL		\$ 18,523,000	\$ 4,317,000	\$ 22,840,000

Future – Within 20-year planning period, as demand warrants Ultimate – Beyond 20-year planning period FAA pays 90% of eligible costs, State pays 5% of eligible costs

Note: The Town or FAA are not obligated to carry out these projects. This effort preserves the opportunity.



### **Next Steps**

#### Work in Progress...

- Integrate comments from this meeting
- Finalize Alternatives Development chapter
- Financial/Implementation Plan chapter
- On-going Airport Layout Plan development submission to FAA



#### **Master Plan Website**



#### Welcome

Welcome to the official Colorado Plains Regional Airport (AKO) Master Plan project information web portal. AKO is updating its Airport Master Plan, which will study the facility needs to meet projected aeronautical demand for the next 20 years and recommend a plan that prepares the airport to serve as the preferred gateway and economic catalyst for the region. Your participation is important to us!

The master plan process is a collaborative effort involving the Colorado Plains Regional Airport staff; Town of Akron, Washington County, CDOT Division of Aeronautics, Federal Aviation Administration, other state and federal government organizations, and of course the users of the airport and community at large. This planning effort is necessary to ensure that the Airport has a solid plan to grow to meet the vision and aeronautical needs of the entire region.

This website has been prepared as just one element of an extensive community outreach program so that airport users and the public can find useful information and have a forum to submit comments or suggestions regarding the future of AKO. By following the links, you will have access to study reports, airport layout plans, project schedule, and important news and meeting dates. We welcome your comments on the <u>Comments</u> page.

We look forward to an engaging dialog with you throughout the planning process!

#### http://sites.jviation.com/ako/MP/index.html

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