



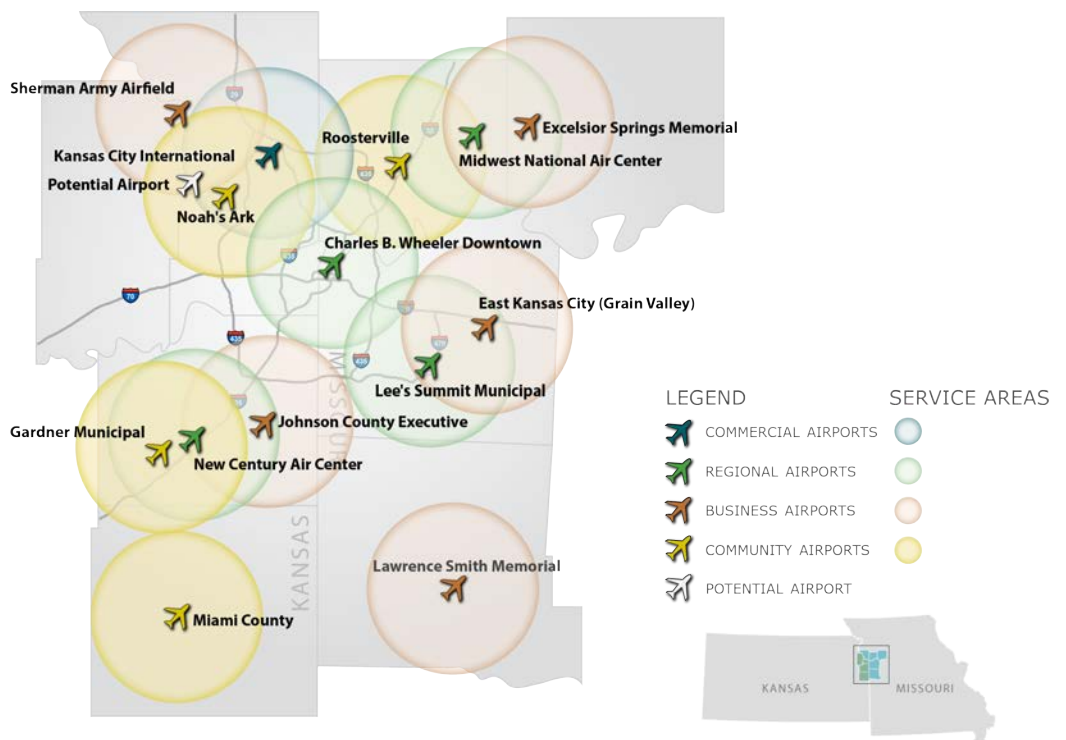
In 2015, the Mid-America Regional Council (MARC) completed a regional aviation system plan (RASP) for a nine-county study area focused on the Kansas City Region. The study area included counties in both Kansas and Missouri and considered 13 general aviation airports, including the Miami County Airport. This report focuses on two important topics: individual finding and recommendations in the system plan for this facility; and various benefits the airport provides/supports in the study area.

Aviation system plans are top-down studies that must still be implemented from the bottom up by individual study airports. The ultimate success of the plan depends on each airport implementing recommendations from the study and following through on any identified improvement actions. Individual airport improvements will result in the enhancement of overall system performance.

As the map below shows, within the regional system, a role as a Community Airport has been recommended for the Miami County Airport. Within the regional system, a Community Airport is described as primarily supporting personal and recreational flying; Community Airports, of course, also accommodate various types of business activities. Within the Kansas State Aviation System Plan, the Miami County Airport is also classified as a Community Airport. The airport is also a federal airport, included in the FAA's National Plan of Integrated Airport Systems (NPIAS). As part of FAA's ASSET Study, the Miami County Airport is classified as a Local Airport. This federal classification is consistent with the airport's classification in both the regional and the state airport systems.

From a facilities standpoint, the Miami County Airport needs improvements to its runway and taxiway systems to meet many of the objectives for a Community Airport. Additional hangar spaces are also needed for aircraft storage.

RASP RECOMMENDED AIRPORT SYSTEM



SERVICE AREA CHARACTERISTICS

The system plan uses a 10-mile radius around each airport to examine current and future population and employment characteristics. The table below shows this information for the Miami County Airport. GIS analysis completed in the study shows that among all study airports the Miami County Airport has the lowest concentrations of both employment and population. Between now and 2040, the rate of increase for both population and employment in the airport's 10-mile radius is expected to be lower than average, when all airport service areas are considered.

Population and Employment						
Airport	Role	Ownership	Total Population within Service Area (2011)	Rate of Population Growth within Service Area (2011)	Total Employment within Service Area (2011)	Rate of Employment Growth within Service Area (2011)
Miami County	Community	Public	18,449	25%	5,849	19%

FUTURE AVIATION DEMAND

Projections of aviation demand were developed for all study airports. These projections considered service area characteristics, actual historic growth, and FAA projections for the general aviation industry (as contained in FAA's most current National Aerospace Forecast).

Forecasts were developed for both based aircraft and annual operations. Annual operations reflect takeoffs and landings performed by aircraft that are based or permanently stored at the airport and aircraft that are visiting or transient in nature.

As the table below shows, the number of based aircraft reported at the airport in 2010 was lower than it was in 2000. Part of this change is undoubtedly related to FAA changes for reporting/counting based aircraft, rather than to an actual decline in the number of planes based at the airport. Perhaps most importantly, between 2010 and 2015 the airport shows a notable percentage increase in based aircraft.

Based aircraft at the airport are expected, according to system plan projections, to increase from 24 to 27, a 13 percent increase over the period. Aircraft based at the airport will continue to be smaller single-engine planes.

Historic Changes in Based Aircraft									
Airport	2000	2005	2010	2015	2000-2015		2010-2015		
					Change	CAGR	Change	CAGR	
Miami County	24	23	19	24	0	0.0%	5	4.8%	

* CAGR - Compound Average Annual Rate of Growth

Projected Aviation Demand					
Miami County Airport	2015	2020	2025	2035	2015-2035 CAGR
Forecast of Based Aircraft	24	24	25	27	13%
Forecast of Annual Operations	10,000	10,500	11,450	12,250	23%

Based Aircraft Fleet Mix 2035					
Airport	Single Engine	Multi Engine	Jet	Rotor	Other
Miami County	24	0	0	0	3

RASP IDENTIFIED ACTIONS AND IMPROVEMENTS

As part of the system plan, facility and service objectives were developed for each of the three airport roles: Regional, Business, and Community. The table to the right shows the ability of current facilities and services at the Miami County Airport to meet the objectives for a Community Airport. If the system plan analysis determined that actions were needed to improve the airport to make it fully compliant with its specific objectives, planning level cost estimates were developed for these projects. Costs by recommended improvement are shown in the table to the right.

As shown, the anticipated cost to improve the airport to meet all of its facility and service objectives and performance measure objectives is estimated at roughly \$1.77 million. A significant portion of this cost is associated with providing the airport with an improved taxiway system and additional hangar storage. The Miami County Airport is eligible for local funding from the county's General Fund, KDOT state funding, and FAA funding.

In addition to facility and service needs, airports in the system plan were evaluated for their ability to meet financial, environmental, and social sustainability performance measures. The Miami County Airport has already taken many steps related to long-term sustainability that are recommended in the regional aviation system plan. Remaining actions needed to make the Miami County Airport fully compliant with all sustainability objectives from the system plan follow:

- Work with surrounding municipalities to enact height zoning following Part 77.
- Work with surrounding municipalities to adopt land use controls to prevent airport encroachment.
- Establish a program to promote recycling.

Some of these actions have an associated cost, while others do not. Any associated costs to meet sustainability performance measures are included in the airport's report card.

Miami County Airport Report Card					K81
AIRPORT NAME: Miami County Airport			CITY: Paola, KS		
AIRPORT CODE: K81			AIRPORT ROLE: Community		
Actions Needed to Meet Facility and Service Objectives					
	Actual	Minimum Objective	Compliant	Improvement Needed	Estimated Cost
ARC	B-I	A-I	Yes		
Runway Length	3,398 Feet	3,200 Feet	Yes		
Runway Width	60 Feet	60 Feet	Yes		
Taxiway	Stub	Turnarounds on Each Runway End	No	Construct parallel taxiway**	\$1,432,201
PCI	100	70 or Greater	No		
Navigational Aids					
Wind Sock	Lighted Wind Sock, Rotating Beacon	Wind Sock	Yes		
Approach Type	LPV	NPA, LPV Desired	Yes		
Lighting	MIRL	MIRL	Yes		
Weather	----	ASOS or AWOS Desired	Yes		
Hangar Storage	24 spaces	100% of Based Aircraft	No	Add 3 additional hangar spaces	\$309,639
Apron Tie-Downs	17 spaces	20% of Busy Day Transient Aircraft	Yes		
Terminal/Admin Building	1,300 square feet with Restrooms and Pilots' Lounge	Pilots' Lounge and Restroom	Yes		
Auto Parking	17 spaces	1.5 Spaces per Based Aircraft Departures on Average Day in Peak Month	No	Add 14 auto parking spaces	\$29,007
Ground Communications	Public Phone	Public Phone, WiFi	No	Provide WiFi	*
Services					
Ground Transportation	Access to Rental Cars	Link to Ground Transportation	Yes		
Additional Actions Needed to Meet System Performance Measure Objectives					
Project Description					Estimated Cost
Work w/Surrounding Municipalities to Adopt Land Use Controls to Prevent Airport Encroachment					*
Work w/Surrounding Municipalities to Enact Height Zoning Following Part 77					*
Establish a Program to Promote Recycling					*
Estimated RASP Project Costs					\$1,770,847

Note: * No fixed cost needed **Improvement and cost identified in Airport's CIP

Acronyms defined in Technical Report Glossary

AIRPORT BENEFITS

General aviation airports are often part of the infrastructure needed to attract and retain jobs and to support the vibrancy of the local and/or regional economy. General aviation airports, however, can also support other benefits.

As part of a prior statewide study conducted by KDOT (completed in 2009) the positive annual economic impacts of the Miami County Airport were estimated. While the data that this estimate is based on is not current, the results still help to show the airport's annual positive economic impact. It is worth noting that KDOT is in the process of updating the airport's economic impact estimate.

Total annual economic impacts for the airport are attributed to one or more of the following four economic activity centers: airport management, airport tenants, average annual capital investment, and spending by visitors who arrive on general aviation aircraft. Total impacts represent both direct and indirect impacts. Indirect impacts result from re-circulating direct impacts, once the direct impacts enter the economy being studied. Indirect impacts were estimated using an input/output model. Since economic impacts are a "snapshot" in time of airport conditions that existed when the study was completed, it is possible that annual economic impacts for the airport have changed.

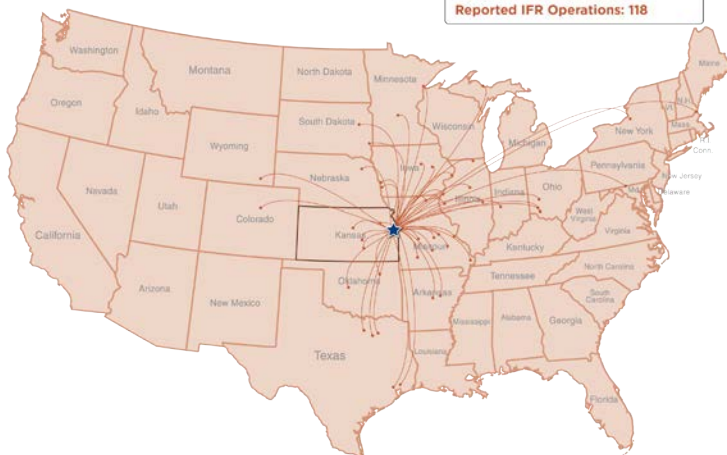
Estimated Annual Economic Impact			
Airport	Total Jobs	Total Payroll	Total Output
Miami County Airport	29	\$952,500	\$3,390,000

The map below shows how the Miami County Airport supports non-stop flights on general aviation aircraft to destinations around the U.S. These instrument flight rule (IFR) flights were obtained from FAA data and represent only an estimated 3 percent of all of the airport's annual operations. This map shows how the airport ties the Kansas City area to other cities around the country.

MIAMI COUNTY AIRPORT PROVIDES NON-STOP FLIGHTS TO ANYWHERE!

MIAMI COUNTY AIRPORT (K81)
IFR Flight Map | January 2014 - January 2015

LEGEND
K81 Flight Plans Completed as Filed
Reported IFR Operations: 118



USER OUTREACH

As part of the system plan, outreach was completed through an online survey to collect additional information of how the study area relies on and benefits from general aviation airports. This survey, that was advertised through a press release sent to all media outlets in the study area, enabled airport users and employers to provide input on how they use the airports.

Survey responses from area employers show that the types of employers that most frequently rely on general aviation aircraft for travel and improved efficiency include:

- Government
- Professional Services
- Construction
- Retail Trade
- Health Care
- Real Estate
- Technical Support
- Finance and Insurance
- Social Services

Employer responses often indicated that more than 50 percent of their employees in the study area improve their job efficiency by using general aviation. Since this survey was geared to gather information from users/employers that benefit from general aviation, the high employee reliance is not surprising.

For businesses that rely on general aviation, the online survey also gathered information on how important the proximity of a general aviation airport is to their business location. Again, since general aviation-dependent businesses were targeted as the respondents for this survey, the high rating given to general aviation airport proximity is not unexpected. Nevertheless, for those employers in the study area that do rely on and benefit from one of the general aviation airports, only proximity to highway access is more important to the location of their business in the nine-county study area.

IMPORTANCE OF LOCATION FACTORS TO LOCAL BUSINESSES



By improving general aviation airports in the study area, such as the Miami County Airport, the Kansas City metropolitan area will be able to continue to realize economic and other benefits.