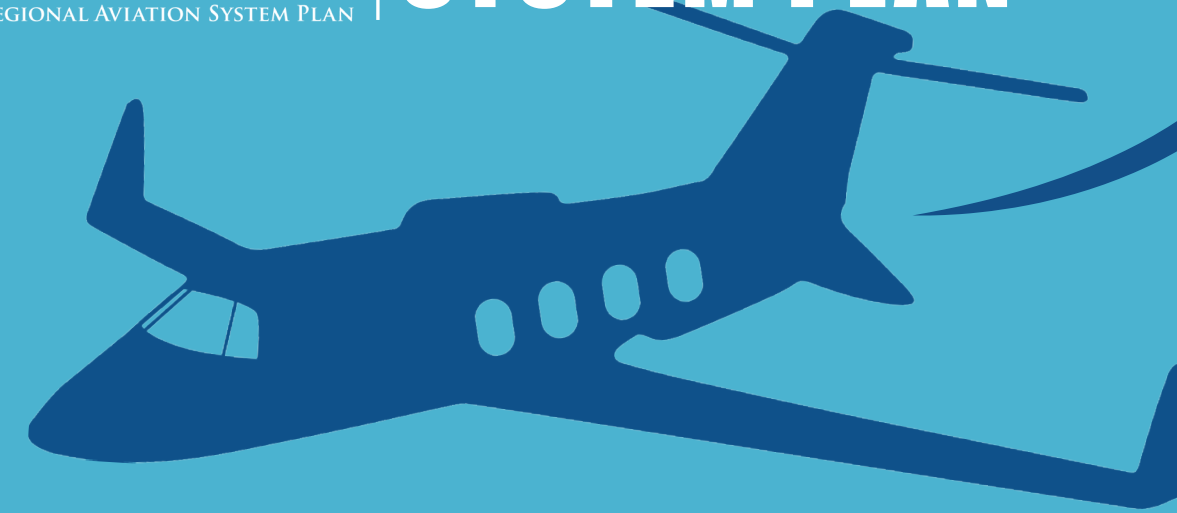


PREPARED BY  
**AVIATION**



# REGIONAL AVIATION SYSTEM PLAN



**2015**  
EXECUTIVE  
SUMMARY



Mid-America Regional Council  
600 Broadway, Suite 200  
Kansas City, Missouri 64105-1659

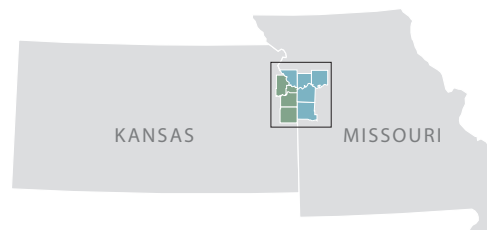
816.474.4240  
transportation@marc.org  
www.MARC.org





**LEGEND**

- Commercial Service Airports
- General Aviation Airports
- NPIAS Airport
- Non- NPIAS Airport
- Public Ownership
- Private Ownership
- DOD Ownership

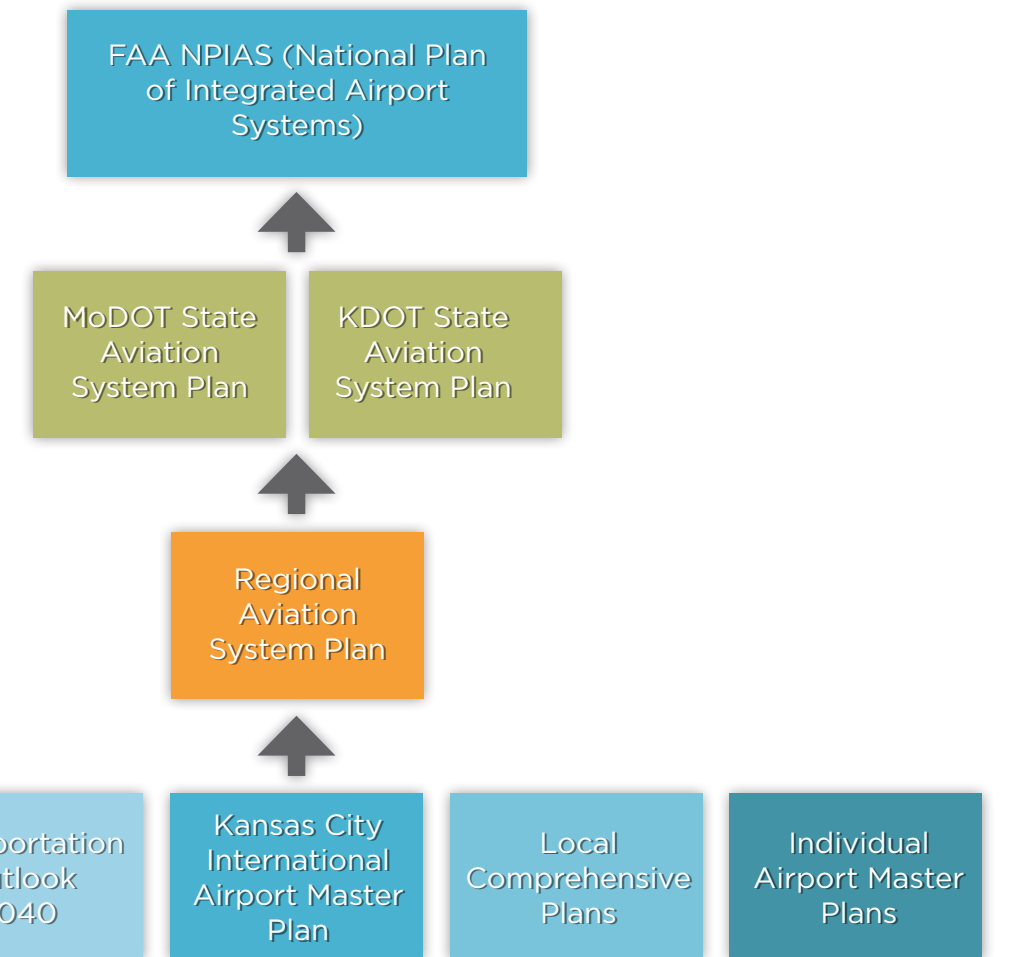


**OVERVIEW**

With funding from the Federal Aviation Administration (FAA), the Kansas Department of Transportation (KDOT), and the Missouri Department of Transportation (MoDOT), the Mid-America Regional Council (MARC), undertook a study to update the Regional Aviation System Plan (RASP) for the Greater Kansas City area. The study focused on 13 general aviation airports that serve a nine-county area. While Kansas City International Airport was considered, this airport was included for the role it plays in supporting general aviation demand. General aviation refers to all segments of the aviation industry that are not related to commercial or military operations.

**REGIONAL AVIATION SYSTEM PLAN**

The system plan provides insight into how airports could be improved to best meet the air transportation needs of the region. This plan provides information to help MoDOT, KDOT, and the FAA set priorities that best support the general aviation needs of the Kansas City Metropolitan Area. The study area spans two states, and the system plan bridges state airport system plans prepared by both MoDOT and KDOT. Further, it informs the National Plan of Integrated Airport Systems (NPIAS), the FAA's national airport system plan. NPIAS airports are eligible to compete for FAA funding. As the map on page 1 shows, most but not all study airports are included in the NPIAS.



**FRAMEWORK GOALS**

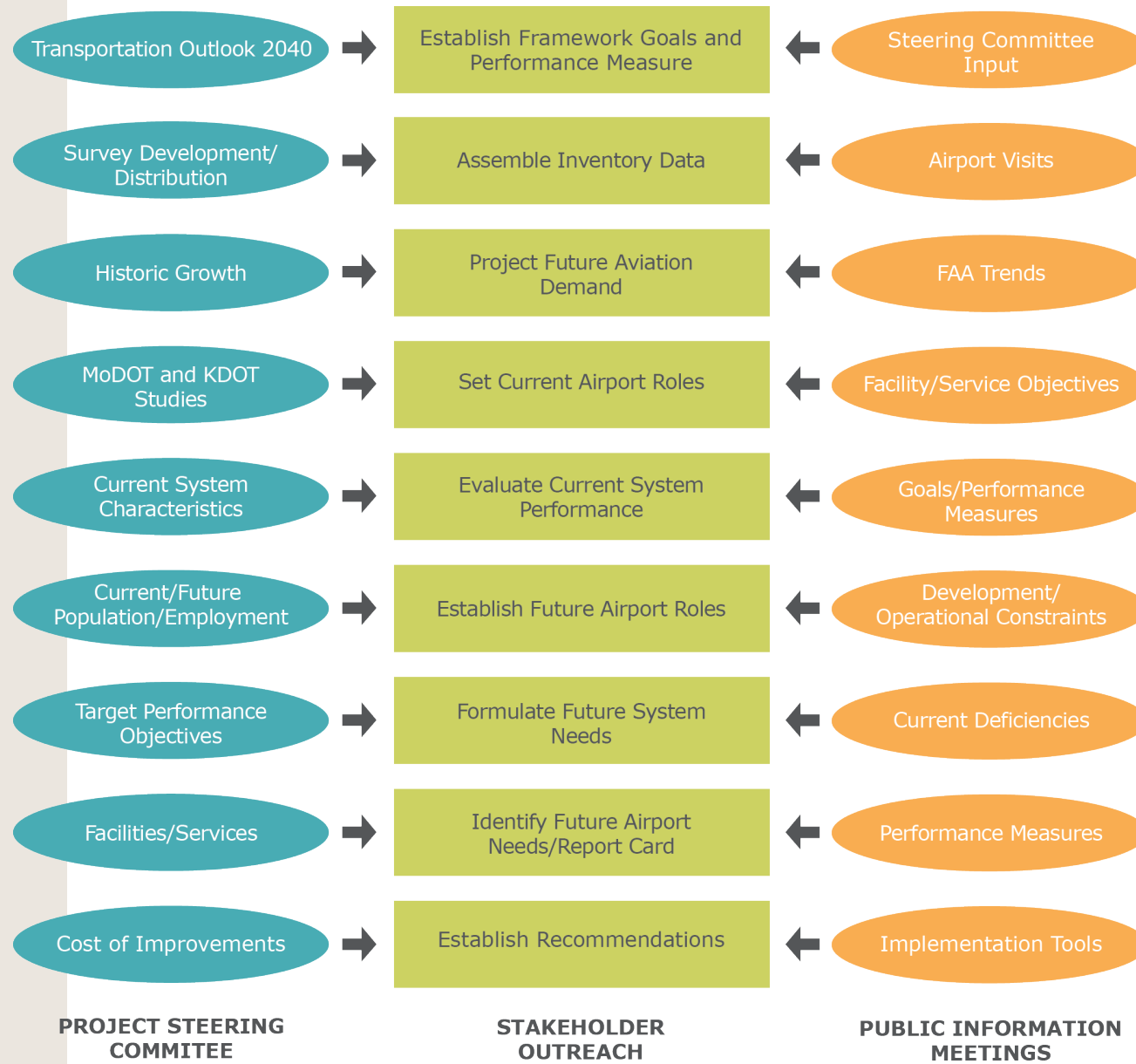
The regional aviation system plan was guided by three overarching framework goals. These goals were used to evaluate how well airports in the system are currently performing and to determine where improved airport compliance with the goals could enhance the regional airport system.

- Enhance Financial Performance by increasing airport revenue streams
- Enhance Environmental Performance by improving land use compatibility in the airport environs, having plans in place to protect the environment, and by taking actions to promote sustainability
- Enhance Social Performance by increasing user accessibility and by broadening community communication and outreach

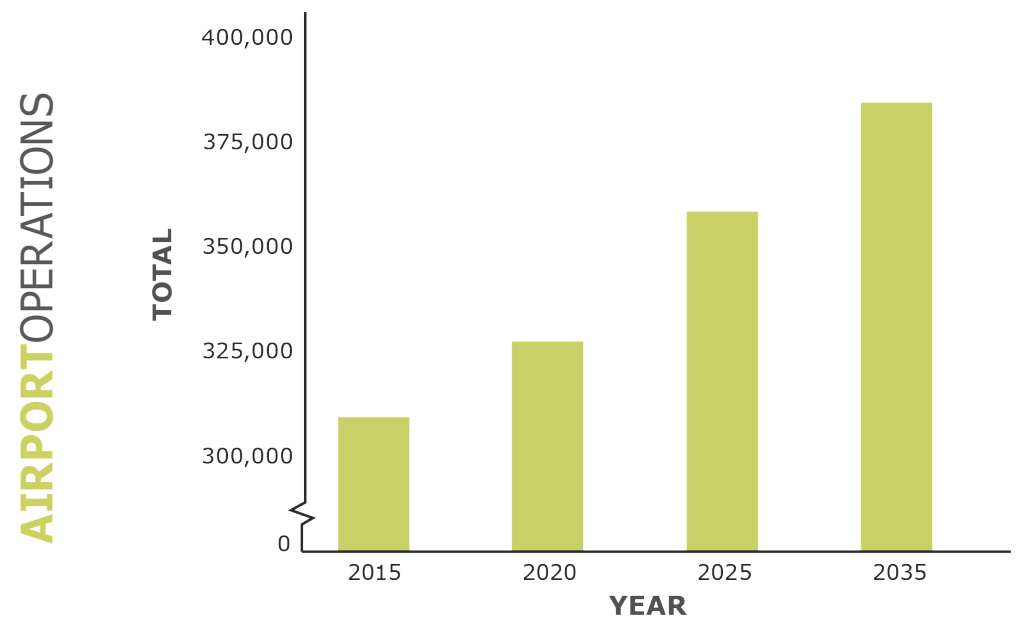
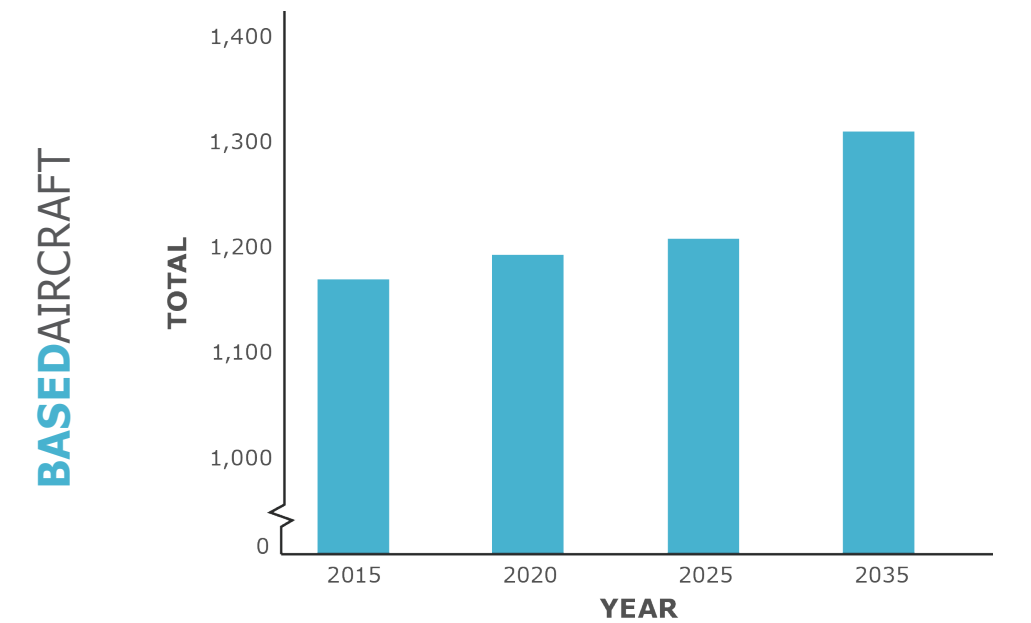
## STUDY PROCESS

The system plan was completed through separate but interrelated steps. Important to the process was stakeholder involvement. This was accomplished through a Project Steering Committee whose members included MARC, KDOT, MoDOT, FAA, and study airports. Representatives from all study airports were engaged from the onset of the study, and the airports provided input for setting targets to improve system performance. Two public informational meetings were also held.

More global outreach on the needs and benefits of the regional airport system was also accomplished. An online survey was publicized through media outlets, chambers of commerce, and economic development groups. This survey provided an opportunity for essentially any employer or airport user in the study area to provide direct study input. This input was used to help identify general aviation needs and to shape a future system to meet those needs.



## PROJECTIONS OF FUTURE AVIATION DEMAND



## FUTURE DEMAND

The system plan inventory supported the study's technical analysis. Information collected in the inventory provided a basis for projecting future aviation demand. Using trends for the general aviation industry, historic growth at study airports, and the FAA's anticipated growth rates for the general aviation industry, projections of demand were developed for each study airport.

Total based aircraft for all study airports are expected to increase from 1,175 to 1,311 by 2035. Based aircraft are planes stored at an airport on a permanent basis. Total annual operations for all airports are expected to grow from 315,800 to 385,400. Annual operations reflect either one aircraft take-off or one landing. Annual operations are attributed to aircraft based at each airport and also to visiting aircraft.

The system plan forecasts provide insight into where growth at study airports is expected. This information ultimately helps to establish future facility needs.

*\*These projections do not include additional general aviation activity that will be accommodated at Kansas City International Airport.*

## AIRPORT ROLES

The role each airport plays in the regional system helps determine its facility and service needs.

### PURPOSE OF AIRPORT ROLES

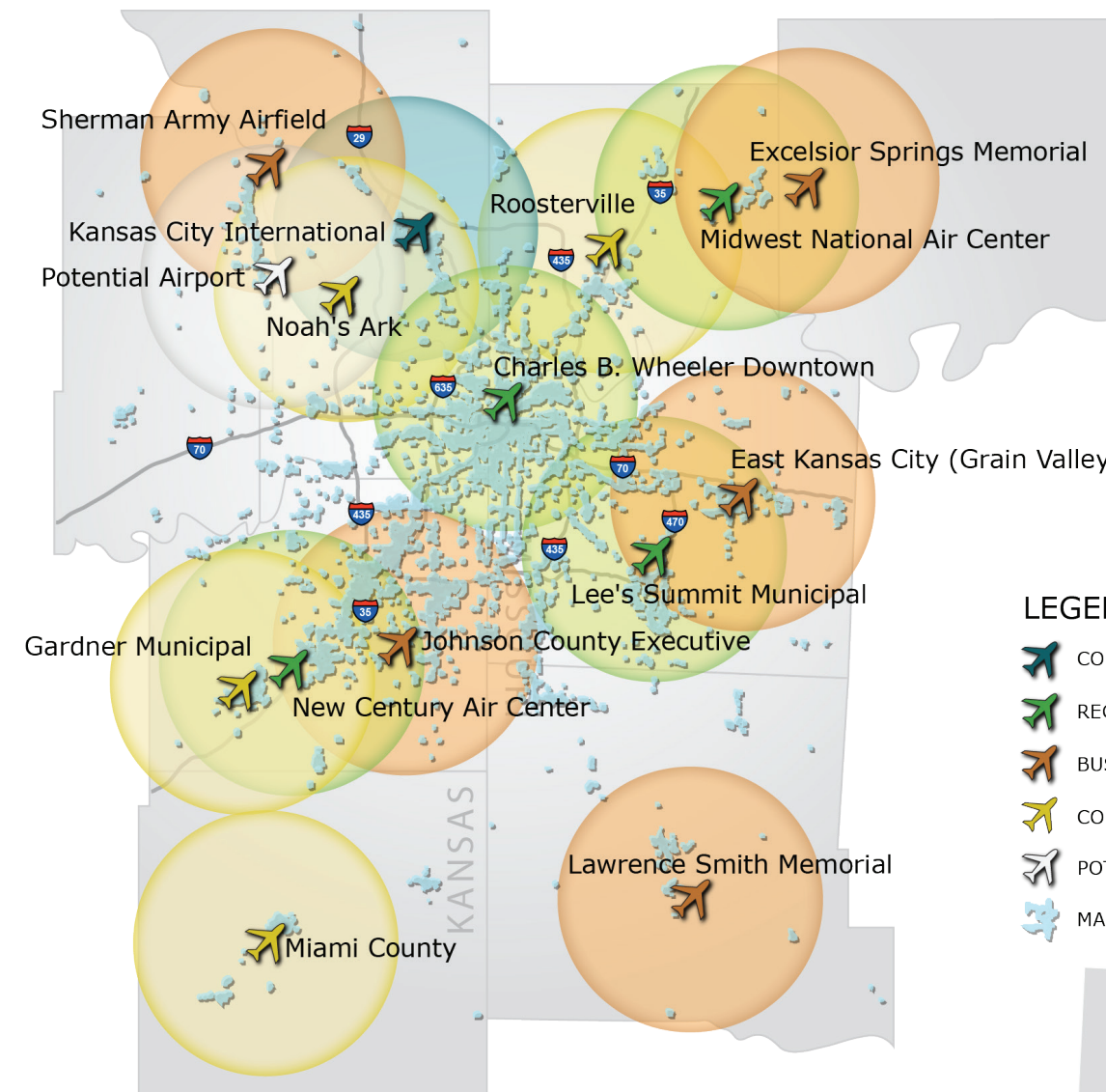
- Help establish each airport's relative system contribution
- Support analysis to determine if the system is "balanced"
- Provide a framework for system evaluation

System plan general aviation airports were assigned to one of three roles: Regional, Business, or Community. Initial system plan airport roles were assigned considering the airport's role in either the Missouri or the Kansas state airport system. If a state role had not previously been established, factors such as facilities, customers, and ownership were considered to establish an initial airport role. The initial roles were further reviewed considering:

- Current employment and population in a 10-mile airport radius – concentrations of employment and population are often indicative of demand for aviation services. Airports serving more densely developed areas should also, general speaking, be more developed themselves.
- Anticipated rates of growth for population and employment – airports that serve emerging areas of development and growth sometimes warrant an increased system role.
- Landside constraints limiting future development – a few of the system airports have limited space for accommodating additional facilities for based aircraft, such as hangars.
- Limitations related to private airport ownership – private airports generally are not eligible for federal or state funding. The long-term viability of privately-owned airports to serve as an aviation resource is sometimes, as a result, limited.

Considering these factors, future roles for general aviation airports in the study area were established. The system plan also supports the continued need for a new general aviation airport in the northwest quadrant of the study area to replace Sherman Army Airfield if needed. While non-site specific, this recommendation is consistent with FAA's NPIAS recommendations.

## RECOMMENDED AIRPORT SYSTEM AND ROLES



For each airport role, the system plan established a set of facilities and services that should ideally be in place at each airport to help the airport best fulfill its assigned system role.

### FACILITY/SERVICE OBJECTIVES BY AIRPORT ROLE

- Help identify reasonable airport development needs
- Reduce duplication of facilities/services
- Provide checks/balances for airport master planning
- Establish airport improvements to raise system performance

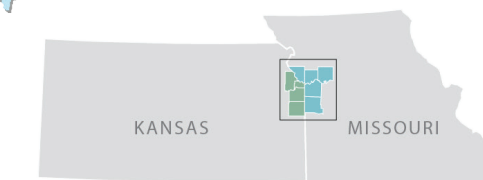
Study airports are well positioned to serve "activity centers" that have been identified by MARC for redevelopment.

### LEGEND

- ✈️ COMMERCIAL AIRPORTS
- ✈️ REGIONAL AIRPORTS
- ✈️ BUSINESS AIRPORTS
- ✈️ COMMUNITY AIRPORTS
- ✈️ POTENTIAL AIRPORT
- ✈️ MARC ACTIVITY CENTERS

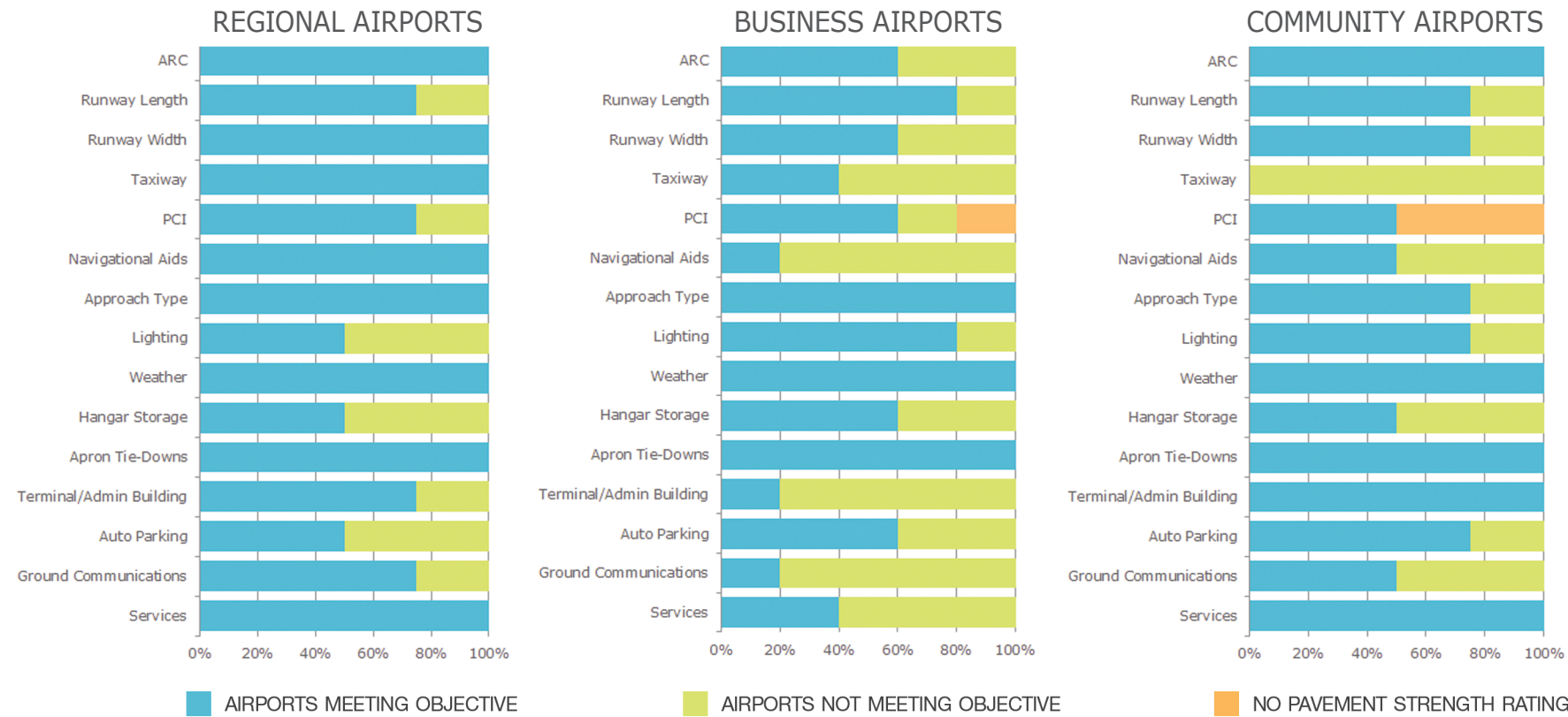
### SERVICE AREAS

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## FACILITY AND SERVICE OBJECTIVES

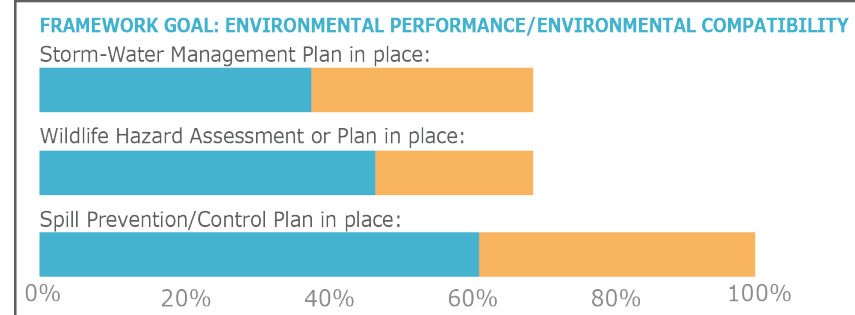
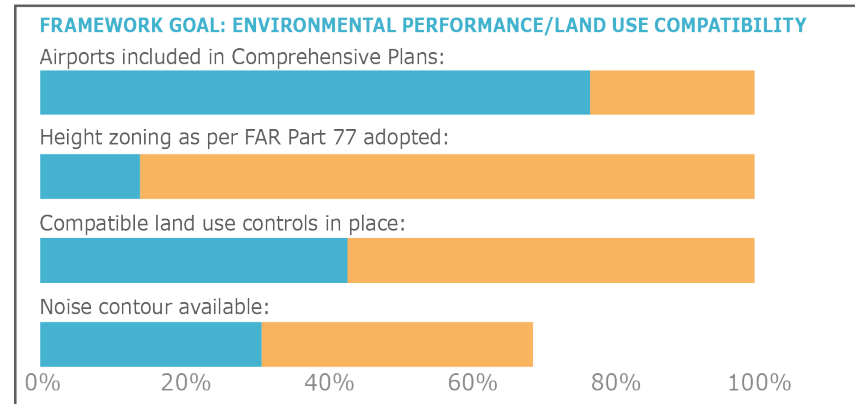
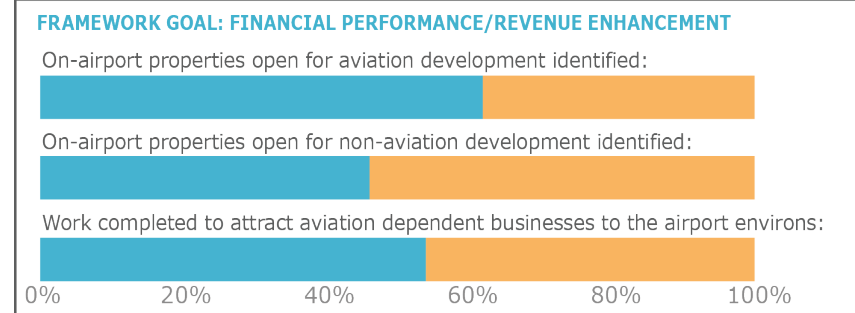
All study airports were evaluated to determine their ability to meet the facility and service objectives established for their particular airport role. The results of this evaluation are shown here. Ideally, all airports should meet their objectives. Projects that would improve system performance relative to each airport's respective facility and service objectives are included in the implementation plan for the system plan.



## SYSTEM EVALUATION

Facility and service objectives are the building blocks for the recommended system. The other building blocks are the framework goals and related performance measures. Goals and measures identified for the system plan are consistent with other regional planning efforts, and they supported the system evaluation. The Project Steering Committee and study airports played an important role in setting expectations for how the system should perform in the future relative to each of the performance measures. As part of the plan's stakeholder involvement, these two groups identified which airports should

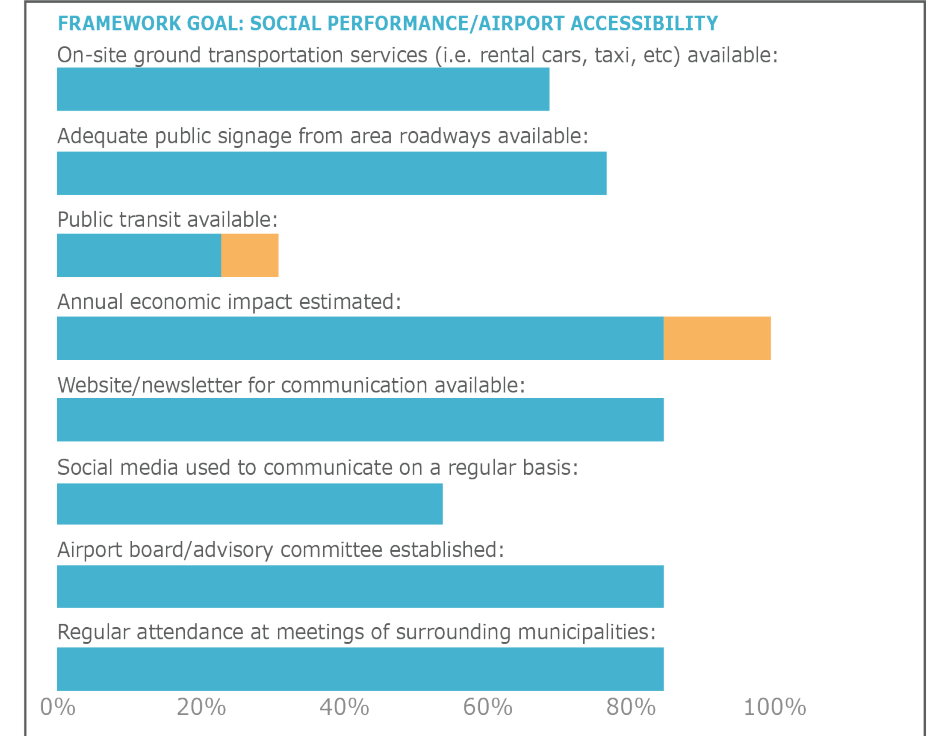
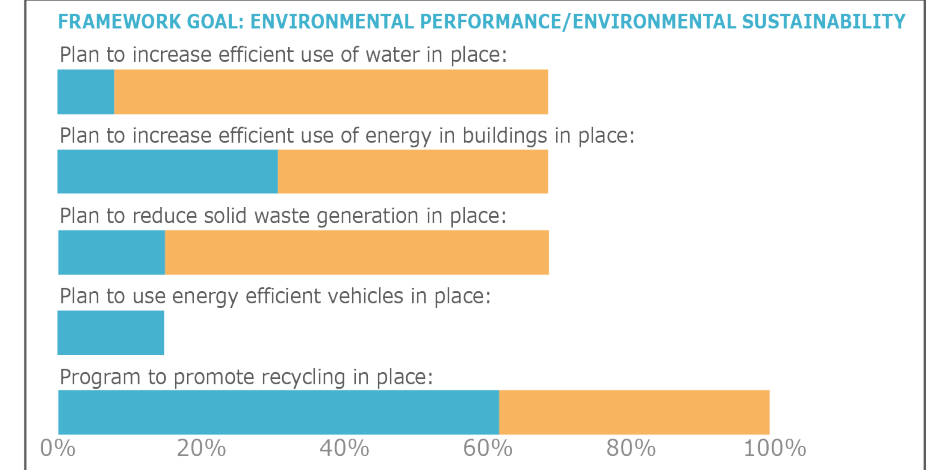
ideally meet each of the performance measures. With stakeholder input, it was possible to establish targets for future system performance. In order to meet established targets, the plan identifies actions needed on the individual airport level. All performance measures are not necessarily applicable to airports in each of the three role categories. In general, there are number of performance measures that do not apply to airports assigned to the Community Airport role.



### LEGEND

■ Current System Performance    ■ Target For Improved System Performance

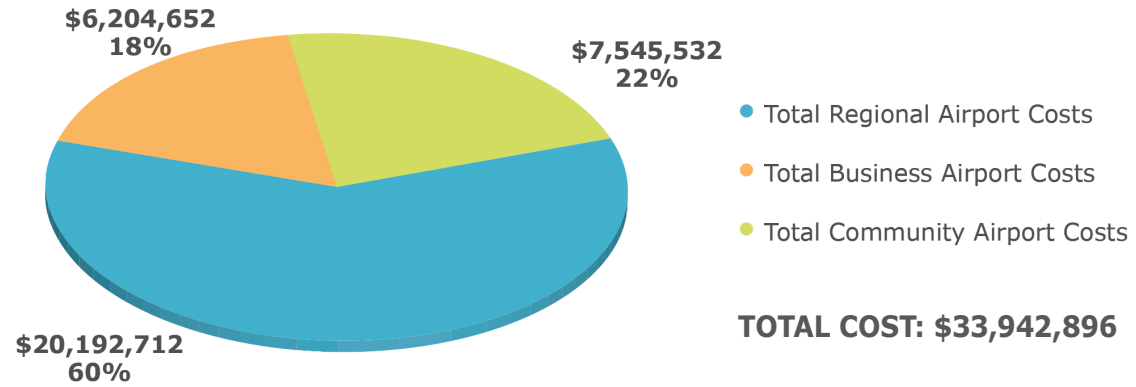
\*If additional target performance is not shown, system is performing adequately for that measure.



## IMPLEMENTATION AND COSTS

The system plan identified approximately \$34 million in total costs needed to implement recommendations. It is important to note that these costs were developed only to a planning level of detail; actual implementation costs could exceed these estimates. The accompanying charts show how total development costs are divided between study airports by airport role and by type of development project. There are also airport specific actions needed to improve system performance that have no associated costs; these improvements relate to items such as adopting compatible land use controls and height zoning that is compliant with FAA FAR Part 77. Costs shown here do not include those that would be associated with a new replacement airport, and it is very likely that airports included in the study will have additional costs for maintenance, replacement, and development that were not captured in the regional system plan.

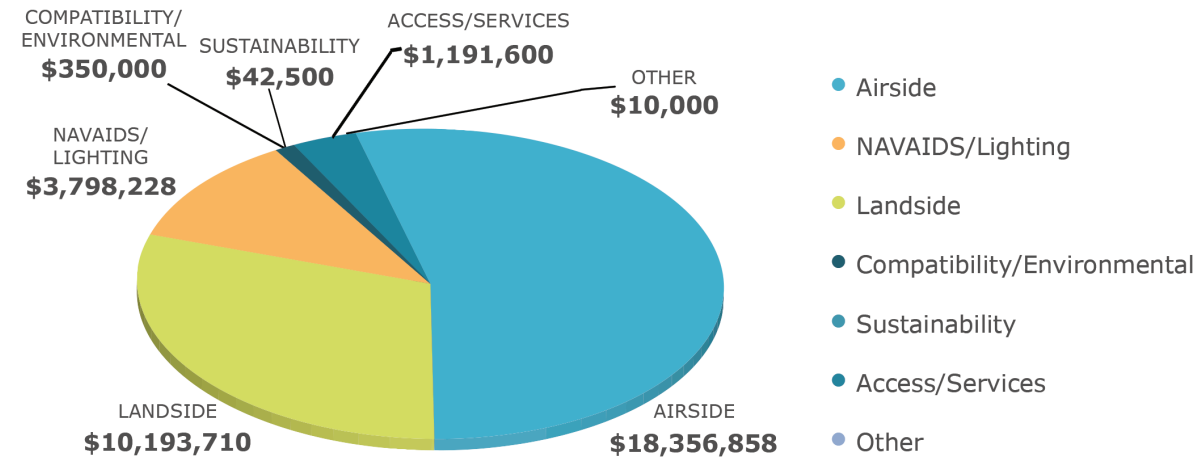
## COST BY AIRPORT



- Total Regional Airport Costs
- Total Business Airport Costs
- Total Community Airport Costs

**TOTAL COST: \$33,942,896**

## COST BY PROJECT TYPE



- Airside
- NAVAIDS/Lighting
- Landside
- Compatibility/Environmental
- Sustainability
- Access/Services
- Other

## SUMMARY

Aviation system plans by their nature are top down planning studies that still must be implemented from the bottom up. In other words, study airports will need to take action to incorporate identified projects into their capital development plans and airport master plans. MoDOT and KDOT should also be incorporating recommendations, as appropriate, into their state plans. FAA should consider adopting system plan forecasts for NPIAS airports into their Terminal Area Forecasts, and FAA should also consider other system plan recommendations for NPIAS airports as they identify future funding needs for airports serving the Kansas City area.

The successful implementation of the regional system plan's recommendations is contingent on collaboration and cooperation between study airports, MARC, MoDOT, KDOT, and the FAA. By working together, the Kansas City area will have an airport system positioned to meet the region's air transportation needs, while supporting future economic growth. System plan tools prepared for each study airport help to ensure that plan implementation is accomplished considering financial, environmental, and social sustainability aspects of the region's future airport system.

