

The Kentucky Transportation Cabinet Department of Aviation (KDA) undertook this aviation system plan to create a better understanding of how the Kentucky airport system serves the citizens of Kentucky, with an emphasis on how the general aviation airports perform. To accomplish this, a set of defined goals, objectives, and performance measures were established for the system plan as the first step in a structured process that would result in a quantitative assessment of the airport system. The results of this process will aid KDA in identifying airport improvements that, once implemented, can result in a superior airport system that can help improve the lives of Kentucky's citizens.

Definition of Terms

In order to explain the process by which the Kentucky State Aviation System Plan (SASP) accomplishes its aims, it is first necessary to define the terms used in this chapter.

- **Goals** – These are broad targets or aims that KDA, stakeholders (airports, airport businesses, airport users), and the aviation public would like the system plan to achieve.
- **Objectives** – Objectives are more detailed and quantifiable than goals. They define specific areas where progress is desired in order to achieve the goal and often include timeframes for accomplishment of objectives. Because goals tend to be broad in nature, multiple objectives are usually needed to support the achievement of each goal.
- **Performance Measures** – Performance measures quantitatively assess a particular objective. Each objective needs one or more performance measures that are used to determine if the objective has been achieved or not. These performance measures can evaluate specific aspects of each airport, or the collective performance of the airport system as a whole, depending upon the objective. Additionally, some performance measures and their associated objectives may be informational only, and have no relevant benchmarks (see below).
- **Benchmarks** – In order to evaluate certain objectives and performance measures (those that are not considered informational only), there needs to be a threshold, or benchmark, against which the actual measurement can be compared. If the performance measure surpasses this benchmark, then the associated objective is met. Chapter 8 will provide details on the benchmarks for those performance measures where a benchmark is appropriate.

Establishing Goals of the Kentucky SASP

The goals of the system plan were established with a focus on meeting the mission of KDA. The mission of KDA is "...to provide a safe and secure air transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities." With this mission in mind, six goals were established in collaboration with KDA staff that addressed the aspects of mobility, safety, security, economic prosperity, environmental preservation, and community quality stipulated in the KDA mission. In addition to these, a goal was established to address the maintenance of airports, for a total of seven goals.

The seven goals of the Kentucky SASP are:

- Goal 1: Help KYTC assess how the Kentucky airport system provides mobility to people.
- Goal 2: Help KYTC assess the safety of the Kentucky airport system.
- Goal 3: Help KYTC assess the security of the Kentucky airport system.
- Goal 4: Help KYTC assess how the Kentucky airport system contributes to and maintains the economic prosperity of Kentucky.

- Goal 5: Help KYTC assess how the Kentucky airport system contributes to preserving the quality of the environment.
- Goal 6: Help KYTC assess maintenance needs at system airports.
- Goal 7: Help KYTC assess in a qualitative fashion how the Kentucky airport system contributes to preserving the quality of Kentucky communities.

These seven goals provide the framework of the Kentucky SASP.

Objectives and Performance Measures

As explained above, each goal is given form and function through the more detailed objectives and performance measures associated with each goal. This section describes the set of objectives and performance measures that were developed for each goal in collaboration with KDA. More details explaining the terms and conditions of the objectives and performance measures are found in the Kentucky Airport System Inventory chapter (Chapter 3) and the Airport Role Analysis and Benchmarks chapter (Chapter 8).

The objectives under each goal are grouped as objectives that either focus on individual airports, or pertain to the system of airports. The individual airport objectives are shown in bold.

Goal 1: Help KYTC assess how the Kentucky airport system provides mobility to people

The first goal of the Kentucky SASP addresses the mobility that airports provide the state. The objectives for this goal are relatively evenly divided between individual airport objectives and overall system objectives.

The individual airport objectives focus on the facilities each airport should have in order to provide adequate services. These individual airport objectives are frequently tied to the role of the airport, which is discussed in more detail in the Airport Role Analysis and Benchmarks chapter (Chapter 8). Along with the role of each airport, the System Evaluation – Facilities and Services chapter (Chapter 10) will also provide details on the benchmarks for those performance measures where a benchmark is appropriate.

The system objectives focus on providing adequate coverage for Kentucky’s citizens, as measured by measuring the population or land area encompassed within a defined drive time around each airport. This aspect of the Kentucky SASP is discussed in more detail in the System Evaluation – Geographic Coverage and Gaps chapter (Chapter 11).

Table 2-1 shows the objectives and associated performance measures that characterizes Goal 1.

Table 2-1
Goal 1 Objectives and Performance Measures

Goal 1: Help KYTC assess how the Kentucky airport system provides mobility to people		
Objective	Performance Measure	
1.01	Assess the adequacy of primary runway length at each system airport based on assigned airport role.	Length of runway
1.02	Assess the adequacy of runway width at each system airport based on its runway design code.	Width of runway
1.03	Assess the adequacy of the primary runway lighting at each system airport based on assigned airport role.	Runway lighting
1.04	Assess the adequacy of the approach lighting system (ALS) on the primary runway at each system airport based on assigned airport role.	ALS
1.05	Assess the adequacy of the best instrument approach procedure (IAP) at each system airport based on assigned airport role.	Best IAP
1.06	Assess the adequacy of fuel provided at each system airport based on assigned airport role.	Fuel services
1.07	Assess the adequacy of airport parking at each system airport based on airport manager's opinion.	Auto parking
1.08	Assess the adequacy of snow removal service provided at each system airport based on assigned airport role.	Snow removal services
1.09	Assess the adequacy of terminal facilities provided at each system airport based on assigned airport role.	Terminal status
1.10	Assess the adequacy of coverage by commercial service airports based on GIS drive-time analysis.	Percent of population and area within 60/90 minutes of a CS airport
1.11	Assess the adequacy of coverage by Economic Level 1 airports based on GIS drive-time analysis.	Percent of population and area within 30 minutes of an Economic Level 1 airport
1.12	Assess the adequacy of coverage by Economic Level 1 and 2 airports based on GIS drive-time analysis.	Percent of population and area within 30 minutes of an Economic Level 1 or 2 airport
1.13	Assess the adequacy of coverage by Economic Level 1, 2, and 3 airports based on GIS drive-time analysis.	Percent of population and area within 30 minutes of an Economic Level 1, 2, or 3 airport
1.14	Assess the adequacy of coverage by system airports (Commercial Service, Economic Level 1, 2, 3, and 4 airports) based on GIS drive-time analysis.	Percent of population and area within 30 minutes of a system airport
1.15	Assess the adequacy of coverage by system airports with a runway length of at least 5,000 feet.	Percent of population and area within 30 minutes of a system airport with a 5,000 foot runway
1.16	Assess the adequacy of coverage by system airports with instrument approach procedures (IAP) based on GIS drive-time analysis.	Percent of population and area within 30 minutes of a system airport with an IAP
1.17	Assess the adequacy of coverage by system airports with fuel service based on GIS drive-time analysis.	Percent of population and area within 30 minutes of a system airport with any fuel service
1.18	Assess the adequacy of coverage by system airports with jet fuel service based on GIS drive-time analysis.	Percent of population and area within 30 minutes of a system airport with jet fuel service

Note: Individual airport objectives are indicated in bold.

Source: CDM Smith

Goal 2: Help KYTC assess the safety of the Kentucky airport system

The safety aspect of the Kentucky SASP is concentrated almost exclusively on individual airport facilities. These are the facilities that are identified as contributing to the safe operation of aircraft at the airport. The only system-wide objective relates to weather reporting, a critical component of an aviation system since weather information has such a significant impact of the safety of flight operations. **Table 2-2** lists each objective and performance measure associated with Goal 2.

Table 2-2
Goal 2 Objectives and Performance Measures

Goal 2: Help KYTC assess the safety of the Kentucky airport system		
Objective		Performance Measure
2.01	Assess whether each system airport adheres to FAA runway safety area (RSA) standards on primary runways.	RSA compliance
2.02	Assess whether each system airport adheres to FAA runway safety area standards on other runways.	RSA compliance
2.03	Assess whether each system airport controls its runway protection zones (RPZ) on the primary runway.	RPZ compliance
2.04	Assess whether each system airport controls its object free area (OFA) on their primary runway.	OFA compliance
2.05	Assess whether each system airport meets FAA standards for separation of the primary runway to the holding position, parallel taxiway, and aircraft parking area.	Separation standard compliance
2.06	Assess the adequacy of taxiways for the primary runway at each system airport based on airport role.	Taxiway type
2.07	Assess the adequacy of visual glide slope indicators (VGSI) for the primary runway at each system airport based on airport role.	VGSI status
2.08	Assess the adequacy of runway end identifier lights (REILs) at each system airport.	REIL status
2.09	Assess the adequacy of automated weather reporting at each system airport based on airport role.	WX reporting status
2.10	Assess the adequacy of the rotating beacon at each system airport.	Rotating beacon status
2.11	Assess the adequacy of wind socks at each system airport based on airport role.	Wind sock status
2.12	Assess the adequacy of wildlife plans at each system airport.	Wildlife plan status
2.13	Assess the adequacy of coverage by airports with automated weather reporting using a 30-nautical mile radius of coverage.	Percent of area within 30 nautical miles of a system airport with automated weather reporting

Note: Individual airport objectives are indicated in bold.

Source: CDM Smith

Goal 3: Help KYTC assess the security of the Kentucky airport system

In addition to being able to assess certain aspects of safe airport operations, the Kentucky SASP seeks to assess certain security features among the system airports. The objectives of Goal 3 all evaluate individual airport features and are listed in **Table 2-3**.

Table 2-3
Goal 3 Objectives and Performance Measures

Goal 3: Help KYTC assess the security of the Kentucky airport system		
Objective		Performance Measure
3.01	Assess the adequacy of fencing at system airports based on assigned airport role.	Fencing status
3.02	Assess the security of system airports through an evaluation of airports with access control systems based on assigned airport role.	Access control system status
3.03	Assess the security of system airports through an evaluation of airports with general aviation security plans.	GA security plan status

Note: Individual airport objectives are indicated in bold.
Source: CDM Smith.

Goal 4: Help KYTC assess how the Kentucky airport system contributes to and maintains the economic prosperity of Kentucky

Another aspect that the Kentucky SASP intends to evaluate is the degree to which airports in the state enhance and facilitate economic activity. As noted in **Table 2-4**, there are a number of indicators that can be used to assess this goal. Three out of the six objectives assess economic contributions of each individual airport, while the other three objectives evaluate how well the airport system provides access for users of business aircraft, customers of flight training, and registered pilots.

Table 2-4
Goal 4 Objectives and Performance Measures

Goal 4: Help KYTC assess how the Kentucky airport system contributes to and maintains the economic prosperity of Kentucky		
Objective		Performance Measure
4.01	Assess the demand for hangar space based on the number of aircraft on waiting lists for hangar space as indicated in the airport survey.	Hangar waiting list numbers
4.02	Assess the level of local commitment from sponsors through an evaluation of local funding provided for: maintenance, operations, and local matching funds for airport capital projects at system airports.	Maintenance funding, operations funding, and local matching funds
4.03	Assess airports' contributions to the economy of Kentucky through an evaluation of the direct economic impacts (jobs, payroll, and output) stemming from system airports.	Direct economic impacts
4.04	Assess the coverage provided by system airports that typically provide service for business aircraft by evaluating system airports with 5,000-foot runways, automated weather reporting, jet fuel, and an instrument approach with vertical guidance.	Percent of population and area within 30 minutes of an airport with a 5,000-foot runway
4.05	Assess the coverage provided by system airports that offer based flight training,	Percent of population and land area within 30 minutes of an airport offering based flight training
4.06	Assess the coverage of Kentucky's registered pilot population by system airports.	Percent of Kentucky's registered pilots living within 30 minutes of a system airport

Note: Individual airport objectives are indicated in bold.
Source: CDM Smith

Goal 5: Help KYTC assess how the Kentucky airport system contributes to preserving the quality of the environment

KDA has invested significant effort in assisting airports around the state achieve compliance with various environmental requirements. In the interest of maintaining that compliance, the Kentucky SASP seeks to assess how well individual airports have maintained their compliance with the environmental requirements listed as objectives in **Table 2-5**.

Table 2-5
Goal 5 Objectives and Performance Measures

Goal 5: Help KYTC assess how the Kentucky airport system contributes to preserving the quality of the environment		
Objective		Performance Measure
5.01	Evaluate what percentage of system airports have EPA spill prevention control and countermeasure (SPCC) plans.	SPCC status
5.02	Evaluate what percentage of system airports have EPA stormwater pollution prevention plans (SWPPP).	SWPPP status
5.03	Evaluate what percentage of system airports have maintained training as per Division of Water General Permit requirements.	Training status
5.04	Evaluate what percentage of system airports have updated their Best Management Plan (BMP) as per Division of Water General Permit requirements.	BMP update status
5.05	Evaluate what percentage of system airports have kept their Tier II inventory and reporting up to date.	Tier II status

Note: Individual airport objectives are indicated in bold.
Source: CDM Smith

Goal 6: Help KYTC assess maintenance needs at system airports

The objectives and performance measures for Goal 6 focus on the maintenance of airports. **Table 2-6** lists the two individual airport objectives that are used to gauge Goal 6.

Table 2-6
Goal 6 Objectives and Performance Measures

Goal 6: Help KYTC assess maintenance needs at system airports		
Objective		Performance Measure
6.01	Assess airfield maintenance trends at each system airport.	5-year history of maintenance projects and planned CIP maintenance
6.02	Assess how well each system airport is maintaining its runway infrastructure by tracking the upkeep status of the primary runway as reported by Kentucky's most recent pavement condition index (PCI) report.	Primary runway PCI

Note: Individual airport objectives are indicated in bold.
Source: CDM Smith

Goal 7: Help KYTC assess in a qualitative fashion how the Kentucky airport system contributes to preserving the quality of Kentucky communities

Goal 7 is unique since its single objective is qualitative in nature, not quantitative. As a result of having nothing to measure, there is no associated performance measure, as shown in **Table 2-7**. Instead, the stated objective is to develop talking points that illustrate how airports help preserve

the quality of Kentucky communities. It is expected that data gathered throughout the project, including individual airport anecdotes, will be used to develop these talking points.

Table 2-7
Goal 7 Objectives and Performance Measures

Goal 7: Help KYTC assess in a qualitative fashion how the Kentucky airport system contributes to preserving the quality of Kentucky communities		
Objective		Performance Measure
7.01	Develop a set of talking points suitable for illustrating how airports contribute to preserving the quality of Kentucky communities.	Not applicable

Source: CDM Smith

Summary

The purpose of the Kentucky SASP is to assist the KDA in assessing the performance of the airport system for purposes of making the system even better. It accomplishes this through seven goals, six of which are directly related to the KDA's mission statement. Each goal has one or more objectives associated with it that provide definition to the goal. In turn, each objective (with the exception of Objective 7.01) has a performance measure that identifies the specific parameter to be measured in order to evaluate the objective. Some objectives are for information purposes only, while others have benchmarks that KDA seeks to achieve or exceed. These benchmarks are discussed in later chapters of this document.

The assessment of these performance measures and objectives will help KDA evaluate how the Kentucky airport system is performing so that KDA can identify where and what resources are needed to improve the system and better serve the people of Kentucky.