ILLINOIS AVIATION

System Plan

TECHNICAL REPORT

Illinois Department of Transportation

Kimley»Horn

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ILLINOIS AVIATION SYSTEM PLAN

Prepared for

Illinois Department of Transportation

2300 S. Dirksen Parkway
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Final Report

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Chapter 1. System Goals and Performance Measures

1.1. Introduction

Proper long-range planning is essential to the success and viability of the State's airports—especially Illinois—whose public-use, public-owned aviation system boasts close to 90 airports, including some of the busiest facilities on the globe. To support this robust system, the Illinois Department of Transportation (IDOT) initiated the development of the Illinois Aviation System Plan (IASP). Prior Illinois Aviation System plans were published in 1975 and 1995, but over the last 25 years monumental industry changes have occurred. Industry changes include revamped FAA airfield design standards funding, and eligibility; national general aviation (GA) fleet mix changes; the modernization of the Air Traffic Control (ATC) system and air navigation techniques; and technological advances affecting globalization. These examples are just a select few of many that justify the need for a revised plan that can identify system needs now, as well as needs and system capabilities in the future. As such, it is the overarching goal of this system plan to both currently assess the state of the aviation system in Illinois and set a framework for future development across the state—one that is versatile, resilient, and adaptable to an ever-changing industry and environment, and assists IDOT in implementing its grant program in accordance with State and Federal laws.

To support the IASP and provide additional resources to airports, an update to the 2012 Economic Impact Analysis (EIA) was conducted in conjunction with the IASP. The EIA quantifies the economic contributions made by the airports to the State's economy. These separate, but related studies, are used to provide IDOT with data to assist in program management and overall funding decisions for the state's aviation system. These studies engaged a multitude of stakeholders for concurrence in establishing a new platform for decision-making and support for future aviation development.[1]

1.2. Purpose of Aviation System Planning

The primary purpose of an aviation system plan is to bridge the gap between individual airport master plans (local level) and the National Plan of Integrated Airport Systems (NPIAS), which is a comprehensive airport system plan at the national level. System plans feed information *up* to be consolidated into the NPIAS, and *down* to provide recommendations for individual airports. State aviation system plans study the performance and interaction of the state's airports to understand the interrelationship of the member airports, and ultimately identify system needs. System plans are not only intended to identify facility and service needs, but also to guide policy decisions and educate those who oversee the system on local, state, and federal levels. It should be noted that the IASP was developed in accordance with guidance provided in the Federal Aviation Administration's (FAA) Advisory Circular (AC) 150/5070-7, Change 1, *The Airport System Planning Process.*

1.3. Study Process

Figure 1.1 depicts the process by which the IASP was developed. As illustrated, the process of the IASP is semi-linear with several interrelated tasks.

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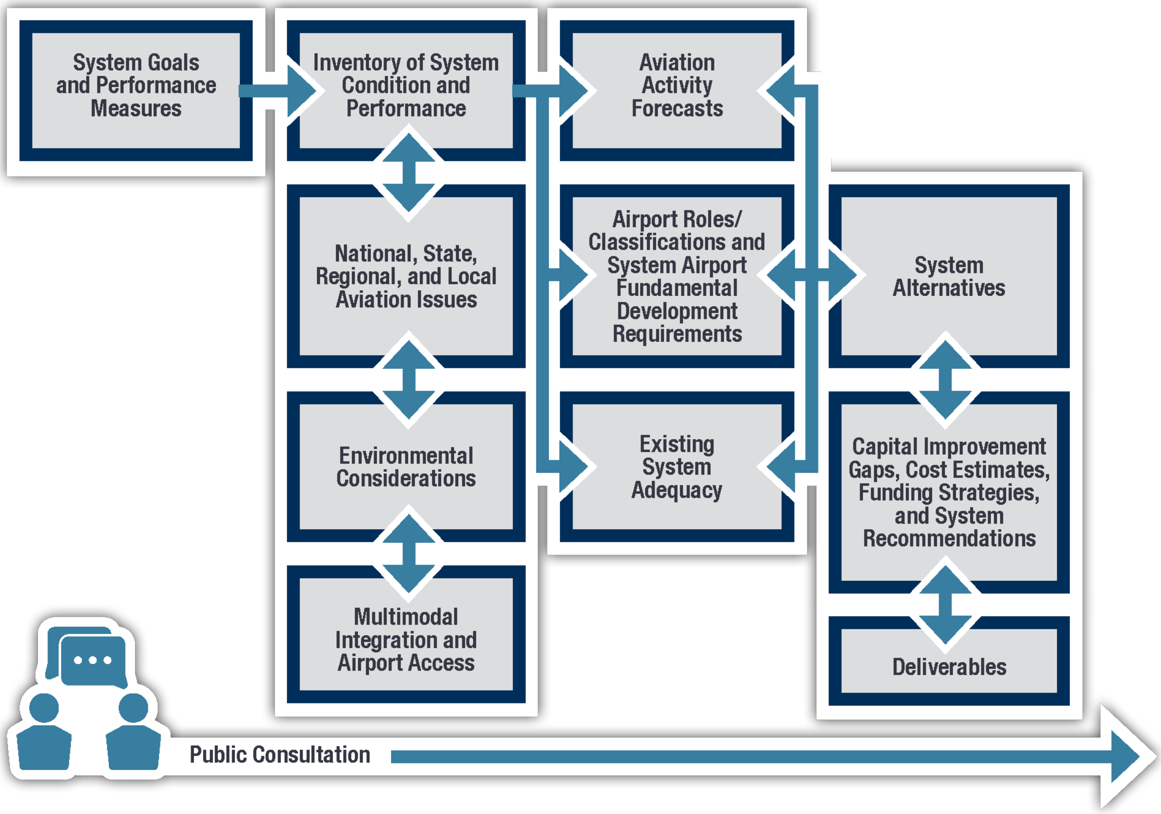
[1] This chapter, as well as subsequent chapters of the IASP Technical Report, focus primarily on the IASP. For information on the EIA, refer to the Illinois Airports Economic Impact Analysis (EIA) Technical Report.

Figure 1.1. IASP Process



Source: Kimley-Horn, 2020

An overview of the primary objectives of each task is provided below:

- **System Goals and Performance Measures (PMs)**. This task defines the goals, PMs, and Performance Indicators (PIs) that are used to evaluate the performance of Illinois' airport system.
- **Inventory of System Condition and Performance**. This task identifies the facilities, services, and conditions available at Illinois' system airports in 2020. The data captured in the task is used to evaluate the PMs and PIs and is the baseline for all subsequent IASP analyses.
- **National, State, Regional, and Local Aviation Issues**. This task discusses aviation issues at all levels. Highlighting these issues is paramount to effectively plan for a safe and efficient system over a 20-year planning horizon.
- **Airport Roles/Classifications and System Airport Fundamental Development Requirements**. This task analyzes the state role/classification each airport plays in the state system. Based on the role/classification, requirements are established to evaluate airport and system gaps/deficiencies as well as to determine airports' funding needs.
- **Multimodal Integration and Airport Access**. This task evaluates Illinois' intermodal network as it relates to accessing the state's airports to promote a greater transportation system.
- **Environmental Considerations**. This task provides an overview of the state's environmental conditions that may be considered sensitive or have a potential impact on future airport development.
- **Existing System Adequacy**. This task analyzes the airport data compiled during the inventory process to identify if the 2020 system is meeting the PMs established in this chapter, as well as airports' abilities to meet established fundamental development requirements.

- **Aviation Activity Forecasts**. This task forecasts anticipated demand for annual GA and commercial operations, based aircraft, and enplanements to provide an understanding of future aviation needs.
- **System Alternatives**. This task identifies scenarios and preemptive strategies to be considered in the event significant changes occur in the Illinois aviation system. Further, this task identifies future system performance goals and identifies areas of potential system deficiencies.
- **Capital Improvement Gaps, Cost Estimates, Funding Strategies, and System Recommendations**. This task catalogs the recommended projects and their associated costs, funding strategies, and policy recommendations needed to close the system gaps/deficiencies to provide Illinois with an effective statewide aviation system.
- **Deliverables**. This task includes developing final versions of the IASP system plan report (hard copy and electronic) and an executive summary brochure to be referenced during planning processes over the 20-year planning period.

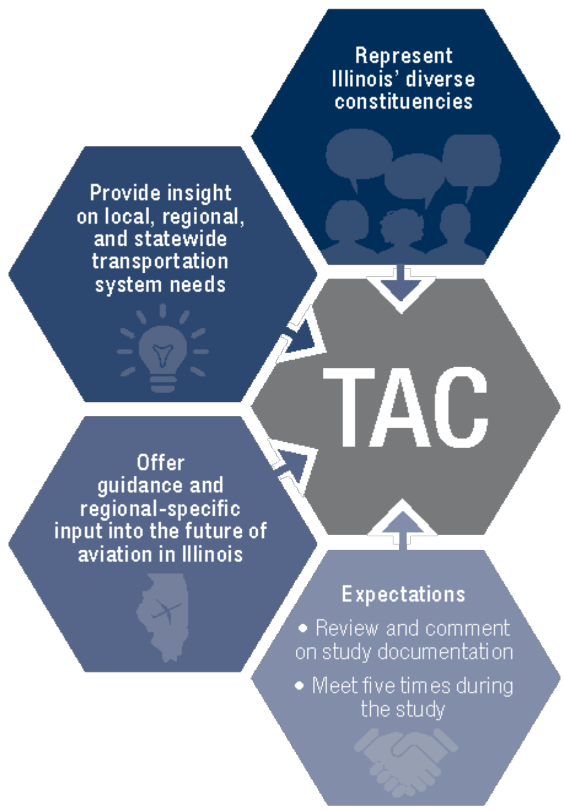
At the conclusion of the IASP, IDOT will have the necessary information to allow for more effective planning and implementation of the airport system, as well as have a path to achieve the fiscally responsible development of airport facilities over the 20-year planning period.

1.4. Technical Advisory Committee (TAC)

A Technical Advisory Committee (TAC) was formed to provide continued guidance and support throughout the development of the IASP. IDOT selected members of unique and diverse organizations to form the TAC who provide local, regional, statewide, and national insight on various issues impacting the Illinois aviation system as illustrated in **Figure 1.2**.[2] The members of the TAC were consulted and engaged at every stage and provided feedback on the usefulness and effectiveness of each study task. The TAC was comprised of stakeholders with a wide range of industry knowledge and experience in airports, aviation, and other related fields. The following list includes the entities represented on the TAC roster:

1. Federal, State, and Local agencies (FAA and IDOT)
2. Public/Private Partnerships (Illinois Chamber of Commerce)
3. Airports (including GA, commercial service, and the Chicago Department of Aviation)
4. Airlines (United Airlines)
5. Educational Institutions (Southern Illinois University)

Figure 1.2. Role of TAC



Source: Kimley-Horn, 2020

[2] The TAC was also consulted throughout the duration of the EIA.

6. Metropolitan Planning Organizations (Chicago Metropolitan Agency for Planning)
7. Aviation Associations (Illinois Association of Air & Critical Care Transport, Illinois Public Airports Association [IPAA], Aircraft Owners and Pilots Association [AOPA], Illinois Agricultural Aviation Association [IAAA], and Illinois Aviation Trades Association [IATA])

1.5. System Goals

Aviation system goals are a foundational element of the system planning process. Goals provide direction for desired results, serve as a starting point for developing performance-related metrics, and provide a framework on which IASP recommendations are made.

1.5.1. Considerations

A review of existing resources was conducted to assist in the development of the IASP goals. Other resources include system plans from other states and Illinois' Long Range Transportation Plan (LRTP). Illinois' latest aviation system plan was not referenced as the state hasn't completed an aviation system plan in over two decades.

1.5.1.1. Other Aviation System Plans

Goals from other aviation system plans were evaluated and compiled for consideration in the IASP. Additionally, phone interviews with various state aeronautics divisions were conducted to obtain information related to the success of their goals. Plans from Alabama, Alaska, Arkansas, California, Florida, Georgia, Idaho, Indiana, Iowa, Kentucky, Minnesota, Montana, New Hampshire, Ohio, Pennsylvania, Vermont, Virginia, and Wisconsin were evaluated. In coordination with IDOT these states were selected to provide a wide range of perspectives from geographic diversity to different sized systems, they have recently completed plans, their population is similar in size and distribution, and other relevant factors.

The project team evaluated other states' aviation system plan goals and compared the goals to IDOT's overall vision. Generally, many goals were similar. Goals were focused on safety, geographic coverage, security, accessibility, fiscal responsibility, preservation, capacity, stewardship, as well as others. The project team considered the multitude of goals that were established in other aviation system plans and wanted to make sure the goals developed for IDOT captured as many aviation needs as possible and were also clearly defined and measurable.

1.5.1.2. IDOT Long-Range Transportation Plan (LRTP)

The FAA updated AC 150-5070-7, Change 1, *The Airport System Planning Process* in 2015, which resulted in the additional recommended emphasis on the input and inclusion of intermodal transportation planning. According to the AC, an airport should be viewed as an element of the larger transportation system.

Per state legislation, IDOT is required to complete an LRTP every five years. The LRTP provides strategic direction for the development of the Illinois transportation system (IDOT Planning). The most recent Illinois LRTP was completed in 2019.

"The LRTP vision for transportation in Illinois is to provide innovative, sustainable and multimodal transportation solutions that support local goals and grow Illinois' economy."

Table 1.1 lists the five goals and associated objectives from Illinois' LRTP.

Table 1.1. LRTP Goals and Objectives

LRTP Goal	Objective
Economy	Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.
Livability	Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.
Mobility	Support all modes of transportation to improve the accessibility and safety by improving connections between all modes of transportation.
Resiliency	Proactively assess, plan, and invest in the state's transportation system to ensure our infrastructure is prepared to sustain and recover from extreme events and other disruptions.
Stewardship	Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.

Sources: IDOT LRTP, Kimley-Horn, 2020

1.5.2. IASP Goals

After review of other state aviation system plan goals, consideration of AC 150-5070-7, Change 1, *The Airport System Planning Process*, and input from IDOT and the TAC, it was validated that the IASP goals can be developed to align with the five goals established in Illinois' LRTP: **Economy, Livability, Mobility, Resiliency, and Stewardship**. Utilizing the goals from Illinois' LRTP not only promotes the FAA's desired emphasis on one larger, intermodal system; but also follows a goal structure that parallels IDOT's 20-year vision of the aviation system. Additionally, it provides IDOT with an opportunity to view the integrated system needs by goal and track progress to enhancing the statewide transportation system.

1.6. Performance Measures and Indicators

PMs are established to directly measure the system's performance in meeting the goals. PMs are elements of the aviation system that IDOT can focus funding efforts on (actionable) and provide qualitative assessments for each goal. Secondary to PMs are Performance Indicators (PIs). PIs are informational analyses that indirectly relate to the system's performance. PIs are informational in nature and are not intended to be influenced by policy or funding decision made by IDOT. **Figure 1.3** illustrates the structure of goals as they relate to PMs and PIs.

Figure 1.3. Goals, PMs, and PIs

Source: Kimley-Horn, 2020

1.6.1. Considerations

Similar to the development of the five IASP goal categories, the project team created a repository of other state aviation system plan performance metrics and consulted with aviation agencies in other states for input on their successes and lessons learned related to their PMs. The PMs were provided to IDOT as a menu of PM possibilities for the IASP and were categorized by type, such as airline/air service, zoning, approaches, etc.

Table 1.2. Other Aviation System Plan Performance Metrics

Categories of Performance Metrics	Example PMs
Air Cargo/ Economic Impact/ Miscellaneous	◆ Airports with documented air cargo activity (by type) and strategy/market, and airports with growing (>1% per year) commercial airline service ◆ Accessibility to various economic features (employment centers, meeting business user needs, agricultural resources, mineral resources, trade centers, tourism indicators, state businesses) ◆ Percent of population with access to an airport supporting business jet operations ◆ Percent of airports meeting minimum facility and service objectives
Airline/Airport Service Accessibility	◆ Percent of population within a 30-minute drive time of a system airport ◆ Percent of population providing access to rural communities ◆ Percent of the state, its population, and employment centers that are within 30 minutes of a system airport that has a Part 135-certified air taxi/charter operator ◆ Percent of hospitals in the state within 30 minutes of a system airport with Instrument Meteorological Conditions (IMC) capability, on-site weather reporting, and jet fuel availability
Airport Zoning and Land Use	◆ Number of system airports with the airport included in local comprehensive/land use plan ◆ Percent of airports that control the Runway Protection Zones (RPZs) through fee simple ownership or easement ◆ Percent of system airports that have a current (past five years) airport master plans/Airport Layout Plans (ALPs) ◆ Percent of airports with adequate safety zoning ordinances ◆ Percent of airports with adequate height/land use controls
Airport Operations and Development	◆ Percent of system airports with jet fuel ◆ Percent of airports with adequate terminal capacity to support passenger demand ◆ Percent of system airports with a waiting list for T-hangars or community hangars ◆ Airports with FBO facilities

Categories of Performance Metrics	Example PMs
Approaches	◆ Percent of airports that have active programs to clear obstructions from their approaches ◆ Percent of airports with up-to-date navigational systems ◆ Percent of the state, its population, and employment centers that are within 30 minutes of a system airport that has at least a non-precision approach ◆ Percent of system airports meeting FAA threshold siting surface requirements
Certificates, Licenses, and Training	◆ Percent of airports that have rental aircraft based at airport and regular flight instruction ◆ Percent of airports supporting airframe and powerplant (A&P) mechanic programs ◆ Percent of airports that accommodate aerial application services
Communication and Outreach	◆ Percent of system airports that have established public outreach programs that include active coordination efforts with the local community, as well as local, regional, state, and federal governmental representatives ◆ Percent of system airports that have educational programs that are affiliated with local elementary/secondary schools, community colleges, or technical/vocational schools
Emergency Response, Medical, and Weather	◆ 95% wind coverage for all Primary Commercial Service, Non-Primary Commercial Service, Limited Commercial Service, Regional GA, and Community GA airports ◆ Percent of system airports that support search and rescue operations. ◆ Percent of airports that support aerial firefighting operations ◆ Percent of population within 30 minutes of an all-weather runway (paved, IAP, weather reporting)
Environmental/ Wildlife Management	◆ Percent of applicable system airports with a Vegetation Management Plan (VMP) ◆ Percent of airports that have a spill prevention control and countermeasures (SPCC) program ◆ Percent of system airports that have fuel farms that comply with NEPA guidelines
Intermodal Transportation	◆ Percent of system airports with an airport perimeter road ◆ Airports with ground transportation services ◆ Percent of system airports accessed by roads within the National Highway System
Airfield	◆ NPIAS airports that meet current FAA/state design standards ◆ Population within 30 minutes of an airport with a paved and lighted runway ◆ Percent of airports with pavement management plans
Safety and Security	◆ Percent of system airports that have established procedures within an operations manual for accident reporting ◆ GA airports meeting TSA security guidelines ◆ Percent of airports with access controls to the airport operating area (AOA)

Source: Kimley-Horn Synthesis of Statewide Aviation System Plans, 2019

Over the course of several internal meetings, the project team finalized the list of PMs and PIs included in the IASP. A total of 44 PMs and PIs were chosen based on metrics used in other aviation system plans that were deemed effective in Illinois, as well as others that were more Illinois-airports-specific.

1.6.2. IASP PMs and PIs

The following section details the PMs and PIs that were established based on input from IDOT and consideration of TAC member feedback. The PMs and PIs are categorized by goal category.

1.6.2.1. Goal 1: Economy

Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.

Table 1.3. outlines the PMs and PIs related to the Economy goal.

Table 1.3. Economy Goal — PMs and PIs

Goal	Performance Measures	Performance Indicators
Economy Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.	Percent of airports that have completed master plan/ALP in the last 10 years (2010 or newer)	Percent of airports with current airside farm plats
	Percent of airports with primary runway approaches negatively impacted by obstructions	Percent of airports with the potential for runway/extension projects – including land already purchased (500+ aircraft operations that exceed Runway Design Code [RDC]/Airport Reference Code [ARC], crosswind runway, and length/width)
	Percent of airports meeting FAA taxiway geometry standards, including direct access taxiways	Percent of airports providing flight training
	Percent of airports that meet FAA Runway Safety Area (RSA) standards	Percent of airports with aging facilities (terminal buildings, hangars, etc.) as defined by the FAA
	Percent of population within a 30-minute drive of an airport with weather reporting capabilities	Percent of airports that have Americans with Disabilities Act (ADA)-compliant terminal buildings
		Percent of airports that experience aerial agricultural application operations
		Percent of airports that experience air ambulance operations
		Percent of airports that experience government operations (wildlife, prisons, military, survey/fish hatchery/ etc.) or law enforcement operations

Source: Kimley-Horn, 2020

1.6.2.2. Goal 2: Livability

Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.

Table 1.4 outlines the PMs and PIs related to the Livability goal.

Table 1.4. Livability Goal — PMs and PIs

Goal	Performance Measure	Performance Indicator
Livability Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.	Percent of airports that have adopted appropriate height /land use controls	Percent of airports included in local/regional comprehensive plans
	Percent of airports that have fully controlled RPZs (fee simple or avigation easement)	Percent of airports properly developing solar and farming initiatives
	Percent of airports with an adopted wildlife management plan	
	Percent of airports with up-to-date drainage analysis and storm water pollution plans	

Source: Kimley-Horn, 2020

1.6.2.3. Goal 3: Mobility

Support all modes of transportation to improve accessibility and safety by improving connections.

Table 1.5 outlines the PMs and PIs related to the Mobility goal.

Table 1.5. Mobility Goal — PMs and PIs

Goal	Performance Measure	Performance Indicator
Mobility Support all modes of transportation to improve accessibility and safety by improving connections.	Percent of population within a 30-minute drive time of a system airport meeting business user needs (5,000’ runway, Jet A, Instrument Approach Procedure [IAP], ground transportation)	Percent of population within a 30-minute drive time of a system airport
	Percent of system airports that have courtesy cars available	Percent of population within a 30-minute drive time of a NPIAS airport
	Percent of airports with 24-hour fuel facilities	Percent of population within a 60-minute drive time of a commercial service airport
	Percent of airports with 10,000 or greater gallon fuel storage	Percent of system airports that have rental cars available
	Percent of airports that have steel, underground storage tanks	Percent of system airports that are served by public transit
		Percent of airports at or exceeding 60K lbs. primary runway pavement strength
		Percent of airports with a grooved primary runway
		Percent of airports with a formal process to manage UAS operations

Source: Kimley-Horn, 2020

1.6.2.4. Goal 4: Resiliency

Proactively assess, plan, and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain and recover from extreme events and other disruptions.

Table 1.6 outlines the Resiliency goal, performance measures, and performance indicators.

Table 1.6. Resiliency Goal — PMs and PIs

Goal	Performance Measure	Performance Indicator
Resiliency Proactively assess, plan, and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain and recover from extreme events and other disruptions.	Percent of airports that have adopted and maintain an emergency response plan	Percent of airport with certified tornado shelters
	Percent of airports with emergency response equipment or mutual aid agreement including in-kind with sponsor	
	Percent of airports with dedicated Snow Removal Equipment (SRE), a storage building for the SRE, or mutual aid agreement – including in-kind from sponsor for snow removal	
	Percent of airports with up-to-date spill prevention plans	

Source: Kimley-Horn, 2020

1.6.2.5. Goal 5: Stewardship

Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.

Table 1.7 outlines the Stewardship goal, performance measures, and performance indicators.

Table 1.7. Stewardship Goal — PMs and PIs

Goal	Performance Measure	Performance Indictor
Stewardship Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.	Percent of airports with a primary runway PCI of 70 or greater	Percent of system airports with expansion/development potential (land availability and utility connections)
	Percent of airports with a primary taxiway PCI of 70 or greater	Percent of airports with documentable hangar needs of defined styles (T-hangar vs. corporate/box)
	Percent of airports with strategic plans or business plans	Percent of airports meeting minimum facility and service objectives
	Percent of airports with current rules, regulations, and minimum standards	

Source: Kimley-Horn, 2020

1.7. Summary

The goals, PMs, and PIs presented in this chapter lay the foundation for the IASP. All subsequent tasks are analyzed and evaluated to meet the desired goals of the aviation system.

Chapter 2. Airport Classifications

2.1. Introduction

Illinois is home to a diverse and varied system of airports, including 85 public-use facilities that vary in physical and/or operational size, location, and the type of users they serve. These facilities consist of general aviation (GA) and commercial service airports; however, there are also two heliports included in the system. Given the large variations among these facilities, it is critical to identify how each function within Illinois's system, grounded on the understanding that each has their own unique set of opportunities and challenges.

Commercial service airports accommodate a large assortment of passenger jets and provide sophisticated facilities and services to support the heavy flow of traffic and range of user needs. Though critical to the service and function of commercial service airports, these facilities and services are not necessary at all airports across the system. For example, Chicago O'Hare International's facilities include numerous passenger concourses, automated people movers, and several 10,000'-plus long runways while smaller commercial service airports, such as Quincy Regional have no passenger concourses and much shorter runway facilities.

Similarly, GA airports typically offer a completely different set of facilities and services that are designed to accommodate diverse types of aircraft. GA facilities serve a wide range of users that vary from corporate jets that traverse the globe to rural facilities providing agricultural support services and recreational flying opportunities.

A variety of factors contribute to an airport's operational ability and level of activity. These factors include the physical characteristics of an airport, such as the runway dimensions, taxiway types, and aircraft storage, and external factors, such as the geographic location, the density of the surrounding population, proximity to economic centers, different surrounding land uses, and more. As described, classifying the function or role that each airport plays in the statewide aviation system, driven by different physical or external factors, is a critical component of the aviation system planning process.

The airport classification process helps to identify like-airports that serve similar users, experience comparable levels of activity, offer similar facilities or services, and overall, function alike within the system. Classifying airports into distinctive roles at the state level allows for coordinated and informed decisions to be made about future development and resource allocation. It is important to note that classifying airports into different roles occurs at both the national level by the Federal Aviation Administration (FAA) and at the state level through the system planning process.

In addition to federal and state airport classification processes, this chapter introduces Facility and Service Objectives (FSOs). FSOs outline the minimum suggested level of facilities and services needed within each airport role to optimally support the type and volume of aviation activity typified by that state role. FSOs can be thought of as benchmarks that airport managers and IDOT Aeronautics can use to determine how an airport is performing in terms of its state role and where improvements can be made.

The sections in this chapter are presented as follows:

- Federal Airport Classifications
- Re-evaluation of Federal Classifications
- Illinois System Airport Classifications
- Facility and Service Objectives
- Summary

2.2. Federal Airport Classifications

Airports play different roles at the local, regional, state, and national level. An airport may not be considered essential to the National Airspace System (NAS) but is still considered a critical asset within a statewide aviation system. Federal and state classifications can be identical, partially overlap, or be completely different. The following section explains the FAA's federal classification system, referred to as the National Plan of Integrated Airport Systems (NPIAS), and identifies the federal roles of Illinois Aviation System Plan (IASP) airports.

2.2.1. National Plan of Integrated Airport Systems

The FAA publishes a NPIAS report in accordance with Title 49 United States Code (U.S.C.), Section 47103. The current 2021-2025 NPIAS was published in September 2020 and is updated every three years. The purpose of this document is to identify the airports deemed critical to the NAS, categorize the roles those airports play, and summarize the amount and type of airport development eligible for Airport Improvement Program (AIP) funding during the period. AIP funding is distributed at the federal level and only NPIAS airports are eligible to receive this funding.

The 2021-2025 NPIAS identifies 3,310 public-use aviation facilities (3,304 existing and six proposed) and estimates approximately $43.6 billion in AIP-eligible airport needs for airport projects between 2021 and 2025. One of the six proposed NPIAS facilities is in Illinois, located approximately 40 miles south of Chicago, and is referred to as the "South Suburban Airport." The airport is included in the NPIAS and recognized in IDOT Aeronautics' system of airports; however, it has been excluded from the subsequent analyses because it is still in its planning phase.

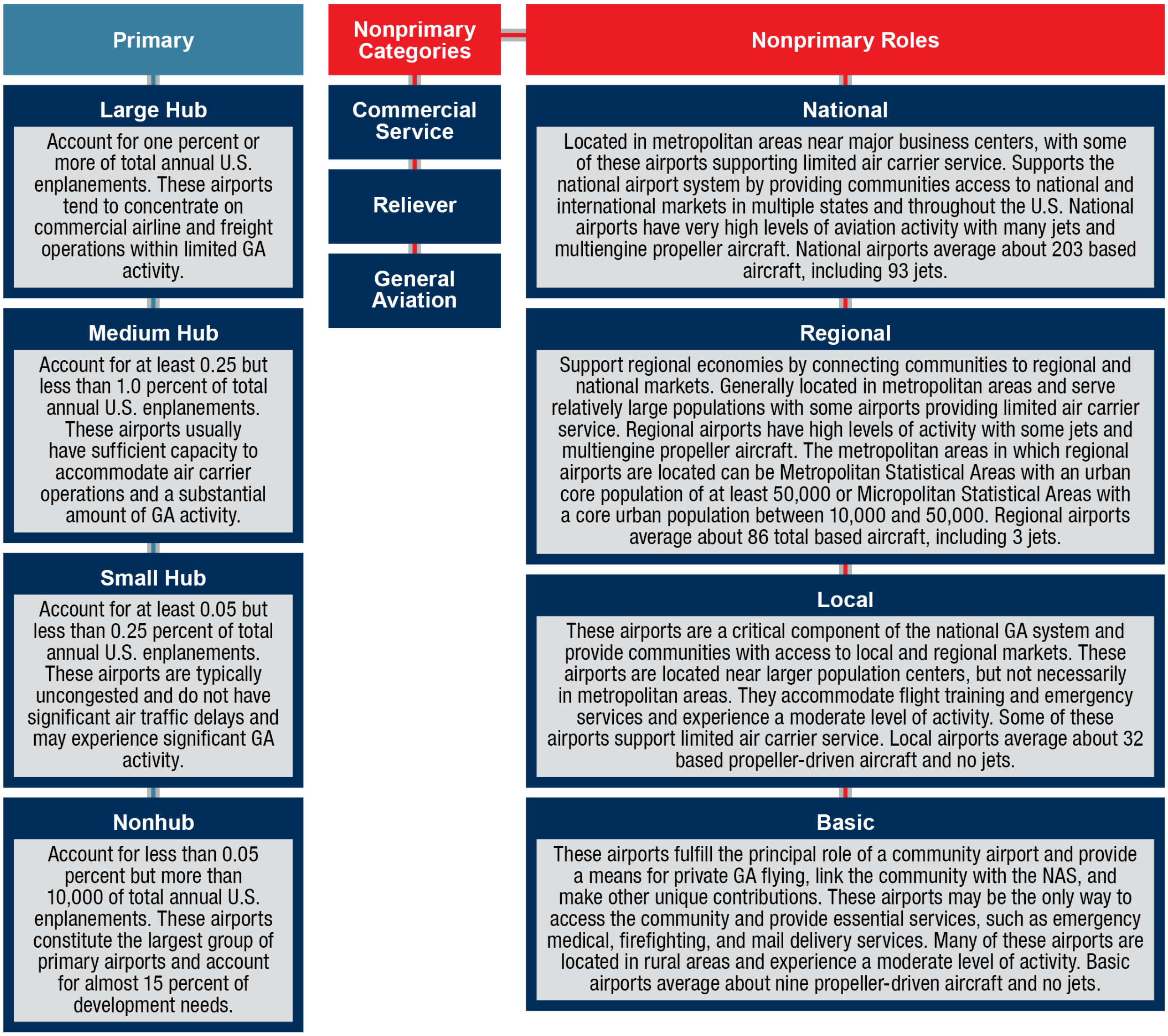
NPIAS airports represent approximately 65 percent of all public-use aviation facilities in the U.S. and include designated landing sites for fixed-wing aircraft, helicopters, and seaplane bases. The great majority of NPIAS facilities are publicly owned, with only two percent of NPIAS airports being privately owned. Illinois represents a portion of that percentage with four NPIAS airports that are privately owned.

Those airports are:

- Galt Field
- Dacy
- Poplar Grove
- Tuscola

Airports are separated into two categories within the NPIAS: Primary and Nonprimary. Primary airports are classified as Large Hub, Medium Hub, Small Hub, and Nonhub airports. Nonprimary airports are classified as National, Regional, Local, Basic, or Unclassified airports. **Figure 2.1** provides detailed descriptions of each classification type within the NPIAS.

Figure 2.1. NPIAS Categories and Classifications



Sources: 2021-2025 NPIAS; Kimley-Horn, 2020

The NPIAS classification process has been updated over the last decade as the level of facilities, services, and activity at airports change over time. The most significant change occurred when the FAA initiated its “General Aviation Airports: A National Asset (ASSET 1)” study in 2010, completed in 2012. “ASSET 2: In-Depth Review of the 497 Unclassified Airports” released in 2014 provided further evaluation and results. The airport categorization process was integrated into the NPIAS starting with the 2017-2019 NPIAS Report. **Figure 2.2** depicts the evolution of airport classifications since 2012.

Airport roles are re-evaluated every two years and, as noted previously, were updated in September 2020 as part of the 2021-2025 NPIAS Report. **Table 2.1** shows the federal classifications for the 2020 IASP airports.

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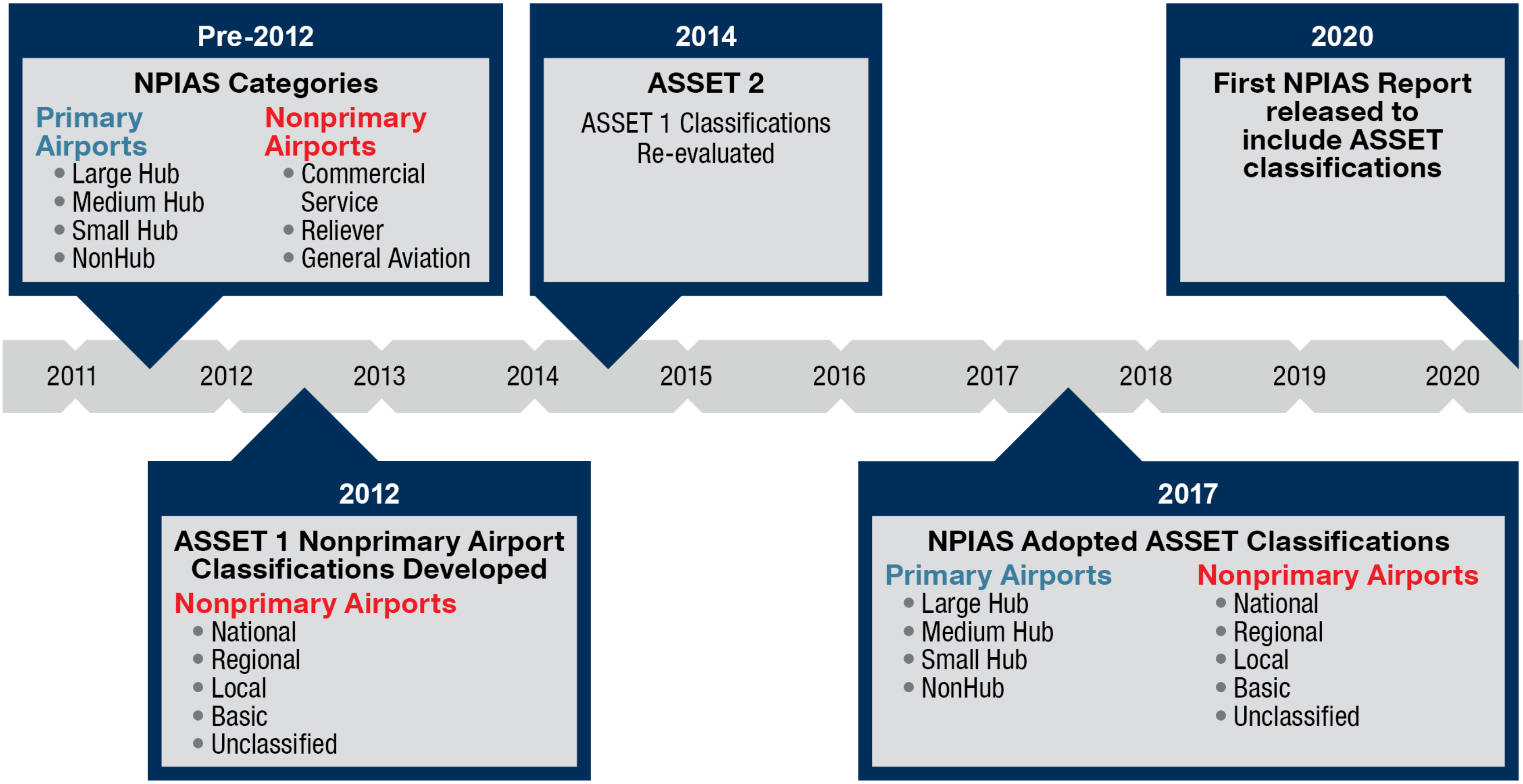
Figure 2.2. Evolution of NPIAS Classifications



Sources: 2021-2025 NPIAS; Kimley-Horn, 2020

Table 2.1. 2021-2025 NPIAS Classifications for 2020 IASP Airports

Associated City	Airport Name	FAA ID	Ownership	FAA Category	2021-2025 NPIAS Role
Primary Airports					
Belleville	Scott AFB/MidAmerica	BLV	Public	Primary	N/A
Bloomington/ Normal	Central Illinois Regional Airport at Bloomington-Normal	BMI	Public	Primary	N/A
Chicago	Chicago Midway International	MDW	Public	Primary	N/A
Chicago	Chicago O'Hare International	ORD	Public	Primary	N/A
Chicago/Rockford	Chicago/Rockford International	RFD	Public	Primary	N/A
Champaign/ Urbana	University of Illinois-Willard	CMI	Public	Primary	N/A
Marion	Veterans Airport of Southern Illinois	MWA	Public	Primary	N/A
Moline	Quad City International	MLI	Public	Primary	N/A
Peoria	General Downing-Peoria International	PIA	Public	Primary	N/A
Quincy	Quincy Regional-Baldwin Field	UIN	Public	Primary	N/A
Springfield	Abraham Lincoln Capital	SPI	Public	Primary	N/A
Nonprimary Airports					
Alton/St. Louis	St. Louis Regional	ALN	Public	Reliever	Regional
Beardstown	Greater Beardstown	K06	Public	General Aviation	Basic
Benton	Benton Municipal	H96	Public	General Aviation	Basic
Bolingbrook	Bolingbrook's Clow International	1C5	Public	General Aviation	Local
Cahokia/St. Louis	St. Louis Downtown	CPS	Public	Reliever	Regional
Cairo	Cairo Regional	CIR	Public	General Aviation	Basic
Canton	Ingersoll	CTK	Public	General Aviation	Local
Carbondale/Murphysboro	Southern Illinois	MDH	Public	General Aviation	Regional
Carmi	Carmi Municipal	CUL	Public	General Aviation	Local
Casey	Casey Municipal	1H8	Public	General Aviation	Local
Centralia	Centralia Municipal	ENL	Public	General Aviation	Local
Chicago	Lansing Municipal	IGQ	Public	Reliever	Local

Associated City	Airport Name	FAA ID	Ownership	FAA Category	2021-2025 NPIAS Role
Chicago/Aurora	Aurora Municipal	ARR	Public	Reliever	National
Chicago/Lake in the Hills	Lake in the Hills	3CK	Public	Reliever	Regional
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	Public	Reliever	National
Chicago/Romeoville	Lewis University	LOT	Public	Reliever	Regional
Chicago/Schaumburg	Schaumburg Regional	06C	Public	General Aviation	Local
Chicago/Schaumburg	Schaumburg Municipal Helistop	4H1	Public	General Aviation	Unclassified
Chicago/Waukegan	Waukegan National	UGN	Public	Reliever	National
Chicago/West Chicago	Dupage	DPA	Public	Reliever	National
Danville	Vermilion Regional	DNV	Public	General Aviation	Local
Decatur	Decatur	DEC	Public	Commercial Service	Regional
DeKalb	DeKalb Taylor Municipal	DKB	Public	General Aviation	Local
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	Public	General Aviation	Local
Effingham	Effingham County Memorial	1H2	Public	General Aviation	Local
Fairfield	Fairfield Municipal	FWC	Public	General Aviation	Basic
Flora	Flora Municipal	FOA	Public	General Aviation	Basic
Freeport	Albertus	FEP	Public	General Aviation	Local
Galesburg	Galesburg Municipal	GBG	Public	General Aviation	Local
Greenville	Greenville	GRE	Public	General Aviation	Local
Greenwood/Wonder Lake	Galt Field	10C	Private	General Aviation	Unclassified
Harrisburg	Harrisburg-Raleigh	HSB	Public	General Aviation	Local
Harvard	Dacy	0C0	Private	General Aviation	Unclassified
Havana	Havana Regional	9I0	Public	General Aviation	Basic
Jacksonville	Jacksonville Municipal	IJX	Public	General Aviation	Local
Joliet	Joliet Regional	JOT	Public	General Aviation	Local
Kankakee	Greater Kankakee	IKK	Public	General Aviation	Local
Kewanee	Kewanee Municipal	EZI	Public	General Aviation	Local
Lacon	Marshall County	C75	Public	General Aviation	Local

Associated City	Airport Name	FAA ID	Ownership	FAA Category	2021-2025 NPIAS Role
Lawrenceville	Lawrenceville-Vincennes International	LWV	Public	General Aviation	Local
Lincoln	Logan County	AAA	Public	General Aviation	Basic
Litchfield	Litchfield Municipal	3LF	Public	General Aviation	Local
Macomb	Macomb Municipal	MQB	Public	General Aviation	Local
Mattoon/Charleston	Coles County Memorial	MTO	Public	General Aviation	Regional
Metropolis	Metropolis Municipal	M30	Public	General Aviation	Basic
Monee	Bult Field	C56	Public	General Aviation	Local
Monmouth	Monmouth Municipal	C66	Public	General Aviation	Basic
Morris	Morris Municipal-James R. Washburn Field	C09	Public	General Aviation	Local
Mount Carmel	Mount Carmel Municipal	AJG	Public	General Aviation	Local
Mount Sterling	Mount Sterling Municipal	I63	Public	General Aviation	Basic
Mount Vernon	Mount Vernon	MVN	Public	General Aviation	Local
Olney-Noble	Olney-Noble	OLY	Public	General Aviation	Local
Paris	Edgar County	PRG	Public	General Aviation	Basic
Pekin	Pekin Municipal	C15	Public	General Aviation	Local
Peoria	Mount Hawley Auxiliary	3MY	Public	General Aviation	Local
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	Public	General Aviation	Regional
Pinckneyville	Pinckneyville-Du Quoin Airport	PJY	Public	General Aviation	Local
Pittsfield	Pittsfield Penstone Municipal	PPQ	Public	General Aviation	Basic
Pontiac	Pontiac Municipal	PNT	Public	General Aviation	Local
Poplar Grove	Poplar Grove	C77	Private	General Aviation	Unclassified
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	Public	General Aviation	Basic
Robinson	Crawford County	RSV	Public	General Aviation	Local
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	Public	General Aviation	Local
Salem	Salem-Leckrone	SLO	Public	General Aviation	Basic
Savanna	Tri-Township	SFY	Public	General Aviation	Basic

Associated City	Airport Name	FAA ID	Ownership	FAA Category	2021-2025 NPIAS Role
Shelbyville	Shelby County	2H0	Public	General Aviation	Local
Sparta	Sparta Community-Hunter Field	SAR	Public	General Aviation	Local
Sterling/Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI	Public	General Aviation	Local
Taylorville	Taylorville Municipal	TAZ	Public	General Aviation	Basic
Tuscola	Tuscola	K96	Private	General Aviation	Unclassified
Vandalia	Vandalia Municipal	VLA	Public	General Aviation	Basic
Non-NPIAS Airports					
Chicago/Tinley Park	Tinley Park Helistop	TF8	Public	N/A	N/A
Paxton	Paxton	1C1	Public	N/A	N/A
Rushville	Schuy-Rush	5K4	Public	N/A	N/A

Source: 2021-2025 NPIAS

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2.3. Re-evaluation of Federal Classifications

This section re-evaluates Illinois' NPIAS airports' ability to meet minimum NPIAS entry criteria, as well as Illinois' non-NPIAS facilities' ability or eligibility to pursue NPIAS status in the future. If an airport becomes unclassified within the NPIAS it may reduce the amount of funding allocated to the state of Illinois, which has implications across the system as Illinois participates in the State Block Grant Program (SBGP). States that participate in the SBGP assume responsibility for administering AIP grants at airports classified as nonprimary commercial service, reliever, and GA.

2.3.1. Entry Process for NPIAS Inclusion

The following evaluation applies to the most recent NPIAS guidance criteria provided in FAA Order 5090.5, *Formulation of the NPIAS and ACIP* (issued September 3, 2019). This order cancelled the previous FAA Orders 5090.3C, *Formulation of the NPIAS* and 5100.39A, *Airports Capital Improvement Plan*, both issued in 2000.

The FAA published revised guidance because of modifications to FAA's authorizing statutes and policies, as well as changes that occurred within the airport and airline industry itself.[3] Combining the NPIAS and ACIP orders into one document allows for a more streamlined flow of airport development data across the planning and identification of potential federal funding process.[4] Some important revisions within FAA Order 5090.5 are:

- Updates the eligibility requirements for airports requesting entry into and withdrawal from the NPIAS
- Defines the roles of Nonprimary airports in statute that had not been defined in previous orders[5]
- Revises the National Priority System (NPS) equation—the numerical system for prioritizing airport development—to consider an airport's role in the national airport system[6]

Classifying airports for the NPIAS is a multi-step process. For an airport to be considered in the NPIAS it must first meet certain minimum standards so that inclusion in the NPIAS aligns with FAA mandates to *"provide a safe, efficient, and integrated system of public use airports*". Once an airport has been considered eligible for NPIAS inclusion, airports are then further classified into their Primary and Nonprimary roles. Airports grouped in the Nonprimary category are further classified into roles based on their function within the system (see **Figure 2.1**). The following sections are organized in accordance with this process and concludes by evaluating Illinois's non-NPIAS and NPIAS airports in meeting the minimum criteria for NPIAS inclusion.

FAA Order 5090.5 considers several qualitative and quantitative factors when determining whether an airport should be included in the NPIAS. Initially, airports are evaluated by a series of data points related to the type and frequency of aviation activities that occur at the airport. Airports are then evaluated by other factors, including geographic location, role within the overall multimodal transportation network, and an airport sponsor's willingness and ability to meet economic and other responsibilities related to an

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[3] https://www.faa.gov/airports/planning_capacity/npias_acip_order/media/Order-5090-5-Summary.pdf
[4] Ibid, p. ii
[5] This update refers to the nonprimary roles of National, Regional, Local, Basic, and Unclassified
[6] FAA (September 3, 2019). Formulation of the NPIAS and the ACIP. Available online at https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/documentNumber/5090.5 (accessed December 2020)

airport's long-term viability. By considering both qualitative and quantitative factors, the NPIAS inclusion process is holistic in its approach and effectively evaluates an airport's potential to enhance and support the national airport system. The initial screening process for inclusion to the NPIAS and additional factors for consideration are provided below.[7]

2.3.1.1. Initial Screening Requirements for NPIAS Inclusion

The initial screening requirements for NPIAS inclusion by airport type are as follows:

Existing commercial service airports must meet the following criteria:

- Publicly owned, publicly accessible airport
- Receives scheduled air carrier service
- Annually enplanes 2,500 or more passengers

Existing GA airports must meet the following criteria:

- Operated by a sponsor eligible to receive federal funds and meet [FAA grant] obligations
- Used by at least 10 operational and airworthy aircraft based at the airport validated against the FAA Aircraft Registry (i.e., basedaircraft.com)
- Located at least 30 miles from the nearest NPIAS airport (including airports located in adjacent states)
- Demonstrates an identifiable role in the national system (such as basic, local, regional, or national)
- Included in a state or territory aviation system plan with a role similar to the federal role, and recommended by the airport's state or territory aviation authority to be part of the NPIAS
- No significant airfield design standard deficiencies, compliance violations, or wetland or wildlife issues based on a review by the FAA

Proposed commercial service or GA airports must meet the applicable eligibility criteria listed above (for existing airports) and meet the following additional requirements:

- Demonstrates how it will meet the operational activity required [for its proposed role] within the first five years of operations through a forecast validated by the FAA (The operational activity cannot be based on attracting demand from other airports, unless there is safety or standard deficiencies at these other airports)
- Provides enhanced facilities that will accommodate the current aviation activity and improve functionality, as well as provide room for future development based on imminent justified demand
- Shows a benefit-cost analysis rating of 1.0 or more (Information on when and how to conduct a benefit-cost analysis is in *FAA Order 5100.38, Airport Improvement Program Handbook*, and *FAA Airport Benefit-Cost Analysis Guidance*.)
- Presents a detailed financial plan for the proposed airport to accomplish its construction and ongoing maintenance
- Level of local support/consensus is adequate to achieve the development of the new airport

[7] FAA (September 3, 2019). Formulation of the NPIAS and the ACIP. Available online at https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.current/documentNumber/5090.5 (accessed December 2020)

"Special justification" may be given to an existing or proposed airport that does not meet all criteria listed above in the following cases:[8]

- Owned by or serving the needs of a Native American community
- Identified and used by the U.S. Forest Service, U.S. Marshals, U.S. Customs and Border Protection (designated, international, or landing rights), U.S. Postal Service (air stops), or has Essential Air Service
- New or replacement public-owned airport that has opened within the last 10 years
- Unique circumstances related to special aeronautical use

Existing publicly owned, public-use heliports may be considered for inclusion if deemed to provide a significant contribution to the public transportation system and meet the following criteria:

- Operated by a sponsor eligible to receive federal funds and meet obligations
- Used by at least four based rotorcraft for at least two years prior to its request for inclusion
- Experiences 400 annual instrument flight rule (IFR) operations
- Included in the state airport system plan (such as the 2020 IASP)

2.3.1.2. Additional FAA Considerations in Reviewing NPIAS Entry Requests

In addition to these specific screening requirements, *FAA Order 5090.5* provides 11 specific considerations that the FAA employs when reviewing NPIAS entry requests.[9] These considerations generally pertain to:

- Level of financial self-reliance
- Historic trends at the airport and in the communities it services
- Airport sponsor's ability and willingness to support the airport
- Ownership structure (i.e., public versus private)
- Diversity of potential future aviation users
- Current design standard deficiencies or other potential federal compliance issues (e.g., non-aeronautical activity on airport property)
- Role in meeting current and projected future aviation demands (and, in the case of proposed airports, how a proposed airport would meet unmet aviation demand without attracting demand from existing facilities)
- Number and classifications of other NPIAS airports within a 30-mile radius of the airport

NPIAS entry requests are reviewed at the FAA Airports District Office (ADO), regional, and headquarter levels. Once an airport is approved for inclusion, it is classified in accordance with the process outlined in the following section.

2.3.2. Federal Classification Process

NPIAS airports are reviewed annually by the FAA to determine if they are Primary or Nonprimary and adjust their hub or service-level designations based on recent changes. Additionally, the Nonprimary roles are evaluated every two years with results published in the biennial NPIAS report. **Table 2.2** provides the activity criteria for each Nonprimary airport role.

[8] Airports included in the NPIAS using "special justification" are considered Unclassified until it can meet the criteria for a role shown in **Table 2.2**.
[9] See Table 3.4 of *FAA Order 5090.5*

Table 2.2. Minimum Criteria for Nonprimary Airport Classifications

Nonprimary Airport Role	Minimum Activity Criteria
National	◆ 5,000 or more instrument operations, 11 or more validated based jets and 20 or more international flights or 500 or more interstate departures ◆ 10,000 or more enplanements and at least 1 carrier enplanement by a large-certificated air carrier ◆ 500 million pounds or more of landed cargo weight
Regional	◆ In a Metropolitan or Micropolitan Statistical Area, 10 or more domestic flights over 500 miles, 1,000 or more instrument operations, and one or more validated based jet or 100 or more validated based aircraft ◆ Nonprimary commercial service airport (requiring scheduled service) within a Metropolitan Statistical Area ◆ Currently designated by the FAA as a Reliever with 90 or more validated based aircraft
Local	◆ Public ownership and 10 or more instrument operations and 15 or more validated based aircraft ◆ Public ownership and 2,500 or more annual enplanements
Basic	◆ Public ownership with 10 or more validated based aircraft, or four or more validated based helicopters if a heliport ◆ Public ownership located 30 or more miles from the nearest NPIAS airport ◆ Owned or serving a Native American community ◆ Identified and used by the U.S. Forest Service, U.S. Marshals, U.S. Customs and Border Protection (designated, international, or landing rights), U.S. Postal Service (air stops), or has Essential Air Service ◆ A new or replacement public-owned airport that has opened within the last 10 years ◆ Unique circumstances related to special aeronautical use
Unclassified	◆ Airports that do not meet one of the criteria in the table listed above are considered Unclassified. These facilities are evaluated with the normal biennial NPIAS review cycle and reclassified accordingly.

Source: FAA Order 5090.5

It is important to keep in mind that the NPIAS roles and the associated criteria were developed to classify all NPIAS airports throughout the U.S. This methodology works well to compare large airports that primarily serve GA aircraft to those that are more rural from a national perspective, however, this methodology may not be as useful when looking at a smaller geography, such as those airports in a state.

2.3.3. Illinois NPIAS Analysis

Airports included in the NPIAS are deemed essential to the NAS and are eligible to receive federal AIP funding for certain types of projects. Considering the importance of NPIAS classifications, an important component of the IASP process is to evaluate both NPIAS and non-NPIAS airports in the state using the criteria described above for NPIAS inclusion and Nonprimary airport roles. It is important to monitor potential changes to federal classifications so that IDOT Aeronautics can be better prepared for future updates, as NPIAS classifications could impact planning decisions made at the state and federal level. The evaluations included below use the most current data available (base year 2019).

It is important to note that any changes to the NPIAS must be closely coordinated with the airport and the FAA. Further, NPIAS airports are required to comply with over 30 federal grant assurances in order to be eligible for AIP funding. These obligations require that the airport sponsor maintain and operate their facility safely and efficiently, and in accordance with specified conditions. In the event an airport sponsor cannot meet these obligations, they become financially responsible to pay back the grant(s) they received. Therefore, grant assurances are a significant undertaking and can be cumbersome for some small communities. There are pros and cons associated with being included in the NPIAS so careful consideration prior to seeking NPIAS status is important.

2.3.3.1. Non-NPIAS Airport Evaluation

The IASP includes three public-use, non-NPIAS facilities (two GA airports and one heliport). The following evaluation assumes that these facilities are operated by an airport sponsor that can meet grant obligations and is eligible to receive federal funds. **Table 2.3** presents the results of the non-NPIAS evaluation that considers FAA's initial screening requirements for inclusion of GA airports and **Table 2.4** shows a similar evaluation for heliport facilities. These evaluations show that none of the non-NPIAS IASP facilities currently meet the requirements for potential inclusion in the national airport system. **Figure 2.3** illustrates the proximity of the three non-NPIAS airports to the nearest NPIAS facility(ies). As shown, the non-NPIAS airports are all within 30 miles of the nearest NPIAS airport.

It should be noted that Illinois is home to many privately owned, private-use/restricted airports. In some locations, these airports have hundreds of based aircraft and are critical to the state system. However, because they are private use (i.e., restricted to the public), they are not part of IDOT Aeronautics' system nor are they included in the IASP analysis.

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Table 2.3. Evaluation of Non-NPIAS Airports for Potential Inclusion in the National Airport System

Associated City	Airport	FAA ID	Included in the IASP	10+ Based Aircraft	Design Deficiencies, Compliance Violations, and/or Wetland or Wildlife Issues	Located 30+ Miles from the Nearest NPIAS Airport	Meets FAA's Initial Screening Requirements
GA Airports							
Paxton	Paxton	1C1	Yes	Yes	Yes	No	No
Rushville	Schuy-Rush	5K4	Yes	No	Yes	No	No

Table 2.4. Evaluation of Non-NPIAS Heliports for Potential Inclusion in the National Airport System

Associated City	Airport	FAA ID	Included in the IASP	4+ Based Rotorcraft and 400 Annual IFR Flights	Meets FAA's Initial Screening Requirement
Heliport					
Chicago/Tinley Park	Tinley Park Helistop	TF8	Yes	No	No

Sources: FAA National Based Aircraft Inventory, 2020; IASP Inventory Form, 2020; FAA Order 5090.5; ArcGIS 2020; 2021-2025 NPIAS

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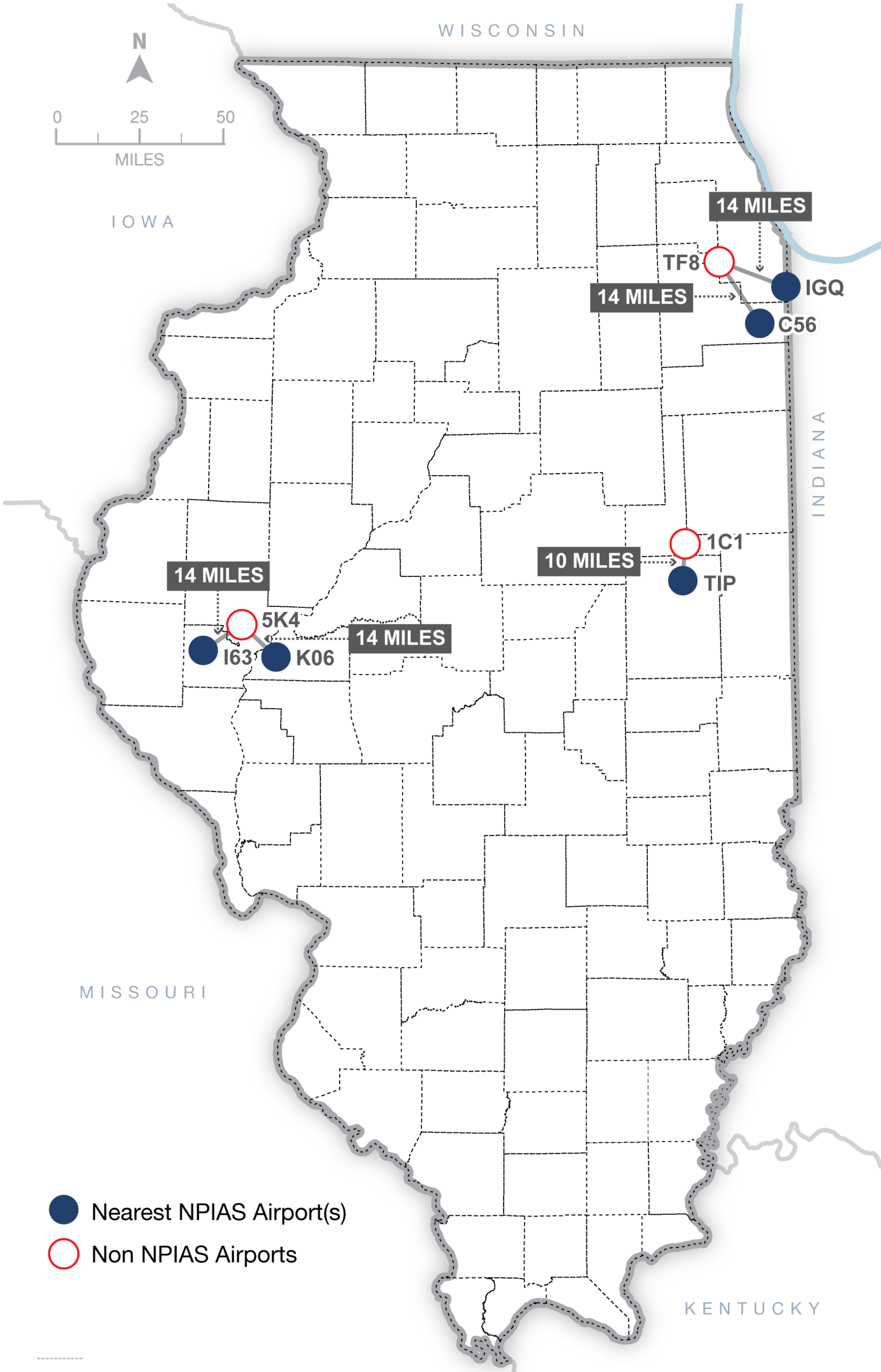
Figure 2.3. Non-NPIAS Airports and Nearest NPIAS Airports



Sources: 2021-2025 NPIAS; ESRI ArcMap; Kimley-Horn, 2020

2.3.3.2. NPIAS Airport Evaluation

Of the 82 NPIAS airports in the Illinois system, 72 are Nonprimary. These 72 facilities are evaluated within the IASP to determine their ability to meet the minimum criteria of a federally classified Basic airport (reference **Table 2.2**). The criteria used to identify a Nonprimary role is different, and far less stringent, than the initial screening requirements for entry into the NPIAS. If an airport within the NPIAS no longer meets one of the activity criteria related to the Basic service level, they may remain in the NPIAS as Unclassified. If and when activity levels improve, or conditions at the airport change, they may be reclassified as Basic. The FAA may remove an Unclassified airport from the NPIAS if both of the following conditions are met:[10]

- The airport is within 30 miles of another NPIAS airport
- The sponsor is incapable of accepting or maintaining any new grant assurance obligations

Airports will not be removed from the NPIAS without consultation and coordination between the FAA and the state agency. Since NPIAS classifications are regularly reviewed, it is important for airports to maintain current based aircraft counts in the FAA's National Based Aircraft Inventory Program (basedaircraft.com). An analysis of each airport's compliance with Basic service-level criteria is provided in **Table 2.5**.

As shown in **Table 2.5**, there are two airports that are currently considered Unclassified in the 2021-2025 NPIAS yet meet the minimum requirements of a NPIAS Basic airport. Both airports will be re-evaluated in the next NPIAS review process and may be eligible for reclassification to the Basic service level. These airports are:

- Dacy
- Galt Field

Additionally, as shown in **Table 2.5**, there are currently nine NPIAS airports that do not meet the minimum federal requirements for the Basic service level. Of those nine airports, three are already considered Unclassified so no recommendation or additional action is needed at this time. However, there are six other IASP airports that are considered NPIAS Basic but do not meet the minimum requirements for that level of service. These six airports will be reviewed again in the next NPIAS analysis for the 2023-2027 report and may experience a change in federal classification considering their current conditions. The six airports that are currently Basic but may change in the next NPIAS are:

- Greater Beardstown
- Benton Municipal
- Monmouth Municipal
- Mount Sterling Municipal
- Pittsfield Penstone Municipal
- Vandalia Municipal

These are **bolded and shown in red text** in the table on the following page.

[10] FAA Order 5090.5, Section 3.4.3

Table 2.5. NPIAS Airports' Achievement of Minimum Entry Criteria

Associated City	Airport Name	FAA ID	10+ Based Aircraft	Design Deficiencies	*30+ Miles from Nearest NPIAS Airport	Owned or Serving a Native American Community	Special Government Designation*	New or Replacement Airport within Last 10 years	Meets Requirements for Basic Airport
Primary									
Belleville	Scott AFB/MidAmerica	BLV	No	Yes	No	No	Yes	No	Yes
Bloomington/Normal	Central Illinois Regional Airport at Bloomington-Normal	BMI	Yes	Yes	Yes	No	No	No	Yes
Champaign/Urbana	University of Illinois-Willard	CMI	Yes	Yes	No	No	No	No	Yes
Chicago	Chicago Midway International	MDW	No	Yes	No	No	Yes	No	Yes
Chicago	Chicago O'Hare International	ORD	No	Yes	No	No	Yes	No	Yes
Chicago/Rockford	Chicago/Rockford International	RFD	Yes	Yes	No	No	Yes	No	Yes
Marion	Veterans Airport of Southern Illinois	MWA	Yes	Yes	No	No	Yes	No	Yes
Moline	Quad City International	MLI	Yes	Yes	No	No	No	No	Yes
Peoria	General Downing-Peoria International	PIA	Yes	Yes	No	No	Yes	No	Yes
Quincy	Quincy Regional-Baldwin Field	UIN	Yes	Yes	No	No	Yes	No	Yes
Springfield	Abraham Lincoln Capital	SPI	Yes	Yes	No	No	No	No	Yes
Nonprimary – National									
Chicago/Aurora	Aurora Municipal	ARR	Yes	Yes	No	No	No	No	Yes
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	Yes	Yes	No	No	Yes	No	Yes
Chicago/Waukegan	Waukegan National	UGN	Yes	Yes	No	No	Yes	No	Yes
Chicago/West Chicago	Dupage	DPA	Yes	Yes	No	No	Yes	No	Yes
Nonprimary – Regional									
Alton/St. Louis	St. Louis Regional	ALN	Yes	Yes	No	No	No	No	Yes
Cahokia/St. Louis	St. Louis Downtown	CPS	Yes	Yes	No	No	No	No	Yes
Carbondale/Murphysboro	Southern Illinois	MDH	Yes	Yes	No	No	No	No	Yes
Chicago/Lake in the Hills	Lake in the Hills	3CK	Yes	Yes	No	No	Yes	No	Yes
Chicago/Romeoville	Lewis University	LOT	Yes	Yes	No	No	No	No	Yes
Decatur	Decatur	DEC	Yes	Yes	Yes	No	Yes	No	Yes
Mattoon/Charleston	Coles County Memorial	MTO	Yes	Yes	No	No	No	No	Yes
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	Yes	Yes	No	No	No	No	Yes
Nonprimary – Local									
Bolingbrook	Bolingbrook's Clow International	1C5	Yes	Yes	No	No	No	No	Yes
Canton	Ingersoll	CTK	Yes	Yes	No	No	No	No	Yes
Carmi	Carmi Municipal	CUL	Yes	Yes	No	No	No	No	Yes
Casey	Casey Municipal	1H8	Yes	Yes	No	No	No	No	Yes
Centralia	Centralia Municipal	ENL	Yes	Yes	No	No	No	No	Yes
Chicago	Lansing Municipal	IGQ	Yes	Yes	No	No	No	No	Yes
Chicago/Schaumburg	Schaumburg Regional	06C	Yes	Yes	No	No	No	No	Yes
Danville	Vermilion Regional	DNV	Yes	Yes	Yes	No	No	No	Yes
DeKalb	DeKalb Taylor Municipal	DKB	Yes	Yes	No	No	No	No	Yes

Associated City	Airport Name	FAA ID	10+ Based Aircraft	Design Deficiencies	*30+ Miles from Nearest NPIAS Airport	Owned or Serving a Native American Community	Special Government Designation*	New or Replacement Airport within Last 10 years	Meets Requirements for Basic Airport
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	Yes	Yes	No	No	No	No	Yes
Effingham	Effingham County Memorial	1H2	Yes	Yes	No	No	No	No	Yes
Freeport	Albertus	FEP	Yes	Yes	No	No	No	No	Yes
Galesburg	Galesburg Municipal	GBG	Yes	Yes	No	No	No	No	Yes
Greenville	Greenville	GRE	Yes	Yes	No	No	Yes	No	Yes
Harrisburg	Harrisburg-Raleigh	HSB	Yes	Yes	No	No	No	No	Yes
Jacksonville	Jacksonville Municipal	IJX	Yes	Yes	No	No	No	No	Yes
Joliet	Joliet Regional	JOT	Yes	Yes	No	No	No	No	Yes
Kankakee	Greater Kankakee	IKK	Yes	Yes	No	No	No	No	Yes
Kewanee	Kewanee Municipal	EZI	Yes	Yes	Yes	No	No	No	Yes
Lacon	Marshall County	C75	Yes	Yes	No	No	No	No	Yes
Lawrenceville	Lawrenceville-Vincennes International	LWV	Yes	No	No	No	No	No	Yes
Litchfield	Litchfield Municipal	3LF	Yes	Yes	No	No	No	No	Yes
Macomb	Macomb Municipal	MQB	Yes	Yes	No	No	No	No	Yes
Monee	Bult Field	C56	Yes	No	No	No	No	No	Yes
Morris	Morris Municipal-James R. Washburn Field	C09	Yes	No	No	No	No	No	Yes
Mount Carmel	Mount Carmel Municipal	AJG	Yes	Yes	No	No	No	No	Yes
Mount Vernon	Mount Vernon	MVN	Yes	Yes	No	No	No	No	Yes
Olney-Noble	Olney-Noble	OLY	Yes	Yes	No	No	No	No	Yes
Pekin	Pekin Municipal	C15	Yes	Yes	No	No	No	No	Yes
Peoria	Mount Hawley Auxiliary	3MY	Yes	Yes	No	No	No	No	Yes
Pinckneyville	Pinckneyville-Du Quoin Airport	PJY	Yes	Yes	No	No	No	No	Yes
Pontiac	Pontiac Municipal	PNT	Yes	Yes	Yes	No	No	No	Yes
Robinson	Crawford County	RSV	Yes	Yes	No	No	No	No	Yes
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	Yes	Yes	No	No	No	No	Yes
Shelbyville	Shelby County	2H0	Yes	Yes	No	No	No	No	Yes
Sparta	Sparta Community-Hunter Field	SAR	Yes	Yes	No	No	No	No	Yes
Sterling/Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI	Yes	Yes	No	No	No	No	Yes
Nonprimary – Basic									
Beardstown	**Greater Beardstown**	**K06**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Benton	**Benton Municipal**	**H96**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Cairo	Cairo Regional	CIR	Yes	Yes	No	No	No	No	Yes
Fairfield	Fairfield Municipal	FWC	Yes	Yes	No	No	No	No	Yes
Flora	Flora Municipal	FOA	Yes	Yes	No	No	No	No	Yes
Havana	Havana Regional	9I0	Yes	Yes	No	No	No	No	Yes
Lincoln	Logan County	AAA	Yes	Yes	No	No	No	No	Yes
Metropolis	Metropolis Municipal	M30	Yes	Yes	No	No	No	No	Yes

Associated City	Airport Name	FAA ID	10+ Based Aircraft	Design Deficiencies	*30+ Miles from Nearest NPIAS Airport	Owned or Serving a Native American Community	Special Government Designation*	New or Replacement Airport within Last 10 years	Meets Requirements for Basic Airport
Monmouth	**Monmouth Municipal**	**C66**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Mount Sterling	**Mount Sterling Municipal**	**I63**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Paris	Edgar County	PRG	Yes	Yes	No	No	No	No	Yes
Pittsfield	**Pittsfield Penstone Municipal**	**PPQ**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	Yes	Yes	No	No	No	No	Yes
Salem	Salem-Leckrone	SLO	Yes	Yes	No	No	No	No	Yes
Savanna	Tri-Township	SFY	Yes	Yes	No	No	No	No	Yes
Taylorville	Taylorville Municipal	TAZ	Yes	Yes	No	No	No	No	Yes
Vandalia	**Vandalia Municipal**	**VLA**	**No**	**Yes**	**No**	**No**	**No**	**No**	**No**
Nonprimary – Unclassified									
Chicago/Schaumburg	Schaumburg Municipal Helistop	4H1	No	No	No	No	No	No	No
Greenwood/Wonder Lake	Galt Field	10C	Yes	Yes	No	No	No	No	Yes
Harvard	Dacy	0C0	Yes	Yes	No	No	No	No	Yes
Poplar Grove	Poplar Grove	C77	No	Yes	No	No	No	No	No
Tuscola	Tuscola	K96	No	Yes	No	No	No	No	No

Note: Airports were considered as having design deficiencies if there are obstructions in the RPZs (as determined by a visual analysis using Google Earth) or if the airport does not meet FAA design separation standards. Airports were considered as having special government designation if the airport is located on or adjacent to Tribal or U.S. Forest Service land; designated by U.S. Customs and Border Protection for international landings; and/or eligible to receive Essential Air Service. Data is not available to identify airports used by the U.S. Marshals or U.S. Postal Service as air stops. Previous NPIAS minimum entry requirements stated that the nearest NPIAS airport must be a 30-minute drivetime or more away, it has been updated to 30 or more miles. Sources: ArcGIS 2019; FAA National Based Aircraft Inventory 2019; FAA 5090.5; NPIAS 2021-2025; U.S. Department of Transportation, 2020; U.S. Customs and Border Protection, 2020; U.S. Forest Service, 2020

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2.4. Illinois System Airport Classifications

Identifying airport classifications on a statewide level can support informed decision-making about resource allocation to ensure state transportation goals are being met in an efficient manner. State airport classifications group together like-airports that may support similar user activities, provide comparable levels of service, and have future development needs that are alike based on those activity and service levels within the state boundaries. It is important to classify airports at the state level because an airport may not be identified in the NPIAS as being critical to NAS, however that same facility (which is not in the NPIAS) may serve a critical role within the Illinois system. There are also other considerations specific to the state that may not be as critical to the federal classification system.

2.4.1. Methodology Overview

This section provides an overview of common methodologies for classifying airports at the state level. Classification methodologies and/or criteria at the state level often differ from the federal level. There are several options available to states when selecting a state classification methodology. The three most popular methodologies include:

- Strict Set of Role Criteria
- Flow Chart
- Points System

Strict Set of Role Criteria

The strict set of role criteria approach is the simplest form of state-specific airport classifications. The methodology identifies specific facilities, services, or other factors that are associated with each role in the system. As roles become less demanding, so too does the criteria associated with that role. For example, if a runway length is selected as a criterion for evaluation, the runway length considered the minimum need for a commercial service airport will be much longer than the minimum runway length need associated with a rural GA facility. While this methodology is easy to understand by airports and airport sponsors, and is fairly customizable, it can lead to airports being under-classified in the event that there is a misalignment between what facilities or services it provides and the types of activities that occur there. If the airports are under classified using this methodology, it can be adjusted so that an airport need only meet a certain number of the criteria, instead of all.

Flow Chart

The flow chart approach relies on a string of questions answered with a “Yes/No” response that determines which role is appropriate for the airport. This methodology also uses established criteria; however, the importance of the criteria can be prioritized based on the order the questions are posed within the flow chart. The criteria that are most impactful or important in the process of differentiating airports should be asked first in the series of questions. The flow chart can successfully organize airports into a tiered system with fewer criteria than other methodologies and is more customizable than the strict set of role criteria methodology. This methodology is also easily updated to reevaluate state roles intermittently or between system plan updates.

Points System

Selecting criteria is also required when adopting the points system methodology. However, instead of making decisions for airport classification based solely on if the airport meets or does not meet the criteria, the point system allocates certain points based on airport performance within each criterion. For example, an airport with a parallel taxiway may receive five points, an airport with a partial parallel taxiway may receive three points, and an airport with only a connector, or no taxiway, receives no points. Once points have been allocated to airports based on the selected criteria they are ranked in terms of their relative performance to other airports. Natural groupings will occur and thresholds for where the score ranges between roles should exist is determined. While the point system is the most customizable and can be tailored to unique state characteristics, it is the most complex and time consuming of the common methodologies and can be less transparent as other methodologies.

2.4.2. 2020 IASP State Classifications

Identifying state classifications can be as simple as adopting the NPIAS roles directly. Adopting NPIAS roles as state roles can help to align state objectives and goals with federal objectives and goals. However, directly adopting NPIAS roles means that non-NPIAS airports included in the state system would be excluded from the classification process, and any attributes important to the state that may not be considered at the federal level would also be excluded.

Based on discussions with IDOT Aeronautics and the Technical Advisory Committee (TAC), it was determined that the 2021-2025 NPIAS generally reflects the functionality of Illinois aviation system, except for the airports in the Local classification. Of the 85 IASP airports, 37 airports (44 percent) were classified as Local which is higher than the national average (37 percent). The 37 Local airports in Illinois reflect varying functions and activity levels within the state system, indicating they are not all alike in their state role. IDOT Aeronautics indicated their desire to re-evaluate the Local airports to determine if these airports should have a separate set of criteria to differentiate them in the state system.

Many different criteria were evaluated such as annual instrument operations, annual jet operations, the presence of AvGas and/or Jet A fueling facilities, and others for their potential use in stratifying between the 37 Local airports. Since airport activity is a crucial indicator of an airport’s function, annual jet operations were selected as the data point that best differentiated between the Local airports. Annual jet operations were obtained from the FAA’s Traffic Flow Management System Counts (TFMSC). Based on 2019 TFMSC annual jet operations data, there was a clear divide in Local airports that experienced a significant level of jet operations and those that did not. This discovery resulted in the decision to classify Local airports identified in the NPIAS as Illinois Regional airports at the state level.

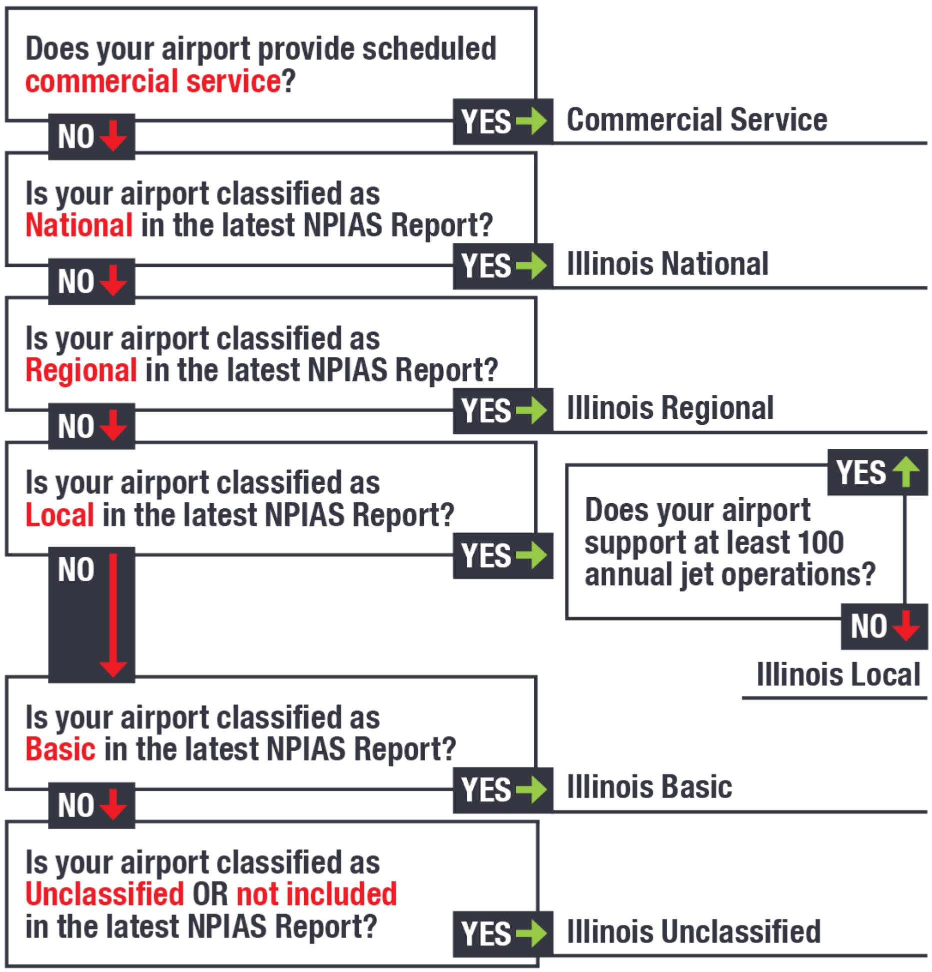
To effectively decipher between state and federal classifications, the IASP used “Illinois” as a descriptor in the 2020 IASP classification titles. The flow chart methodology used in the IASP closely followed the NPIAS criteria with a few exceptions:

- NPIAS roles were not considered if the airport supports scheduled air service. Airports with scheduled commercial service (Part 121 or 135) were classified as Commercial Service regardless of their NPIAS classification
- NPIAS Local airports were classified as Illinois Regional if the airport experienced 100 or more annual jet operations in 2019
- Non-NPIAS airports were included with Unclassified NPIAS airports and all are identified as Illinois Unclassified airports

Figure 2.4 illustrates the flow chart methodology developed for the IASP. The 2020 IASP classifications that resulted from the flow chart methodology are as follows:

- Commercial Service
- Illinois National
- Illinois Regional
- Illinois Local
- Illinois Basic
- Illinois Unclassified

Figure 2.4. 2020 IASP Flow Chart Methodology



Source: Kimley-Horn, 2020

Table 2.6 compares the 2020 IASP role classifications with the 2021-2025 NPIAS classifications. Note that the airports are presented by 2020 IASP role, with each group presented alphabetically by associated city. Airports that are in **bold green** have a higher state classification than their federal/NPIAS classification, with the NPIAS role identified in the column and the IASP role in the row headers by role category. It should be noted that no airport's state classification is lower than their federal classification. **Figure 2.5** depicts the 2020 IASP roles for each system airport.

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ILLINOIS AVIATION SYSTEM PLAN

Table 2.6. 2020 IASP Roles

Associated City	Airport Name	FAA ID	2021-2025 NPIAS Role	Annual Jet Ops*
Commercial Service				
Belleville	Scott AFB/MidAmerica	BLV	N/A	N/A
Bloomington/Normal	Central Illinois Regional Airport at Bloomington-Normal	BMI	N/A	N/A
Champaign/Urbana	University of Illinois-Willard	CMI	N/A	N/A
Chicago	Chicago Midway International	MDW	N/A	N/A
Chicago	Chicago O'Hare International	ORD	N/A	N/A
Chicago/Rockford	Chicago/Rockford International	RFD	N/A	N/A
Decatur	**Decatur**	**DEC**	**Regional**	**N/A**
Marion	Veterans Airport of Southern Illinois	MWA	N/A	N/A
Moline	Quad City International	MLI	N/A	N/A
Peoria	General Downing-Peoria International	PIA	N/A	N/A
Quincy	Quincy Regional-Baldwin Field	UIN	N/A	N/A
Springfield	Abraham Lincoln Capital	SPI	N/A	N/A
Illinois National				
Chicago/Aurora	Aurora Municipal	ARR	National	N/A
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	National	N/A
Chicago/Waukegan	Waukegan National	UGN	National	N/A
Chicago/West Chicago	Dupage	DPA	National	N/A
Illinois Regional				
Alton/St. Louis	St. Louis Regional	ALN	Regional	N/A
Cahokia/St. Louis	St. Louis Downtown	CPS	Regional	N/A
Carbondale/Murphysboro	Southern Illinois	MDH	Regional	N/A
Chicago/Lake in the Hills	Lake in the Hills	3CK	Regional	N/A
Chicago/Romeoville	Lewis University	LOT	Regional	N/A
Danville	**Vermilion Regional**	**DNV**	**Local**	**107**
DeKalb	**DeKalb Taylor Municipal**	**DKB**	**Local**	**233**
Effingham	**Effingham County Memorial**	**1H2**	**Local**	**702**

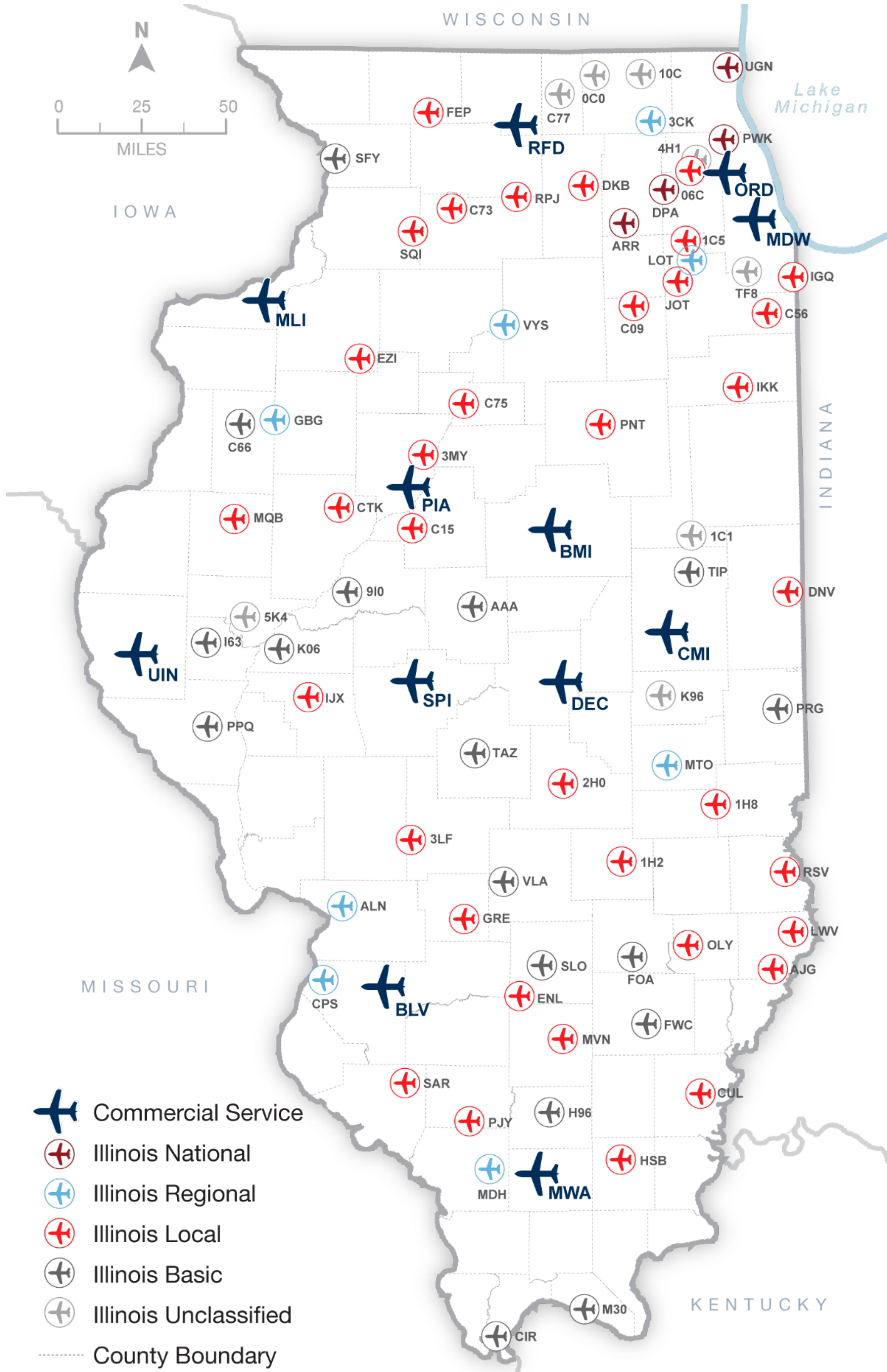
Associated City	Airport Name	FAA ID	2021-2025 NPIAS Role	Annual Jet Ops*
Galesburg	**Galesburg Municipal**	**GBG**	**Local**	**336**
Jacksonville	**Jacksonville Municipal**	**IJX**	**Local**	**115**
Kankakee	**Greater Kankakee**	**IKK**	**Local**	**231**
Macomb	**Macomb Municipal**	**MQB**	**Local**	**170**
Mattoon/Charleston	Coles County Memorial	MTO	Regional	N/A
Monee	**Bult Field**	**C56**	**Local**	**179**
Morris	**Morris Municipal-James R Washburn Field**	**C09**	**Local**	**158**
Mount Vernon	**Mount Vernon**	**MVN**	**Local**	**186**
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	Regional	N/A
Sterling/Rockfalls	**Whiteside County-Jos H. Bittorf Field**	**SQI**	**Local**	**106**
Illinois Local				
Bolingbrook	Bolingbrook's Clow International	1C5	Local	2
Canton	Ingersoll	CTK	Local	0
Carmi	Carmi Municipal	CUL	Local	11
Casey	Casey Municipal	1H8	Local	35
Centralia	Centralia Municipal	ENL	Local	32
Chicago	Lansing Municipal	IGQ	Local	33
Chicago/Schaumburg	Schaumburg Regional	06C	Local	37
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	Local	0
Freeport	Albertus	FEP	Local	43
Greenville	Greenville	GRE	Local	4
Harrisburg	Harrisburg-Raleigh	HSB	Local	13
Joliet	Joliet Regional	JOT	Local	2
Kewanee	Kewanee Municipal	EZI	Local	7
Lacon	Marshall County	C75	Local	12
Lawrenceville	Lawrenceville-Vincennes International	LWV	Local	93
Litchfield	Litchfield Municipal	3LF	Local	34
Mount Carmel	Mount Carmel Municipal	AJG	Local	2

Associated City	Airport Name	FAA ID	2021-2025 NPIAS Role	Annual Jet Ops*
Olney-Noble	Olney-Noble	OLY	Local	24
Pekin	Pekin Municipal	C15	Local	21
Peoria	Mount Hawley Auxiliary	3MY	Local	17
Pinckneyville	Pinckneyville-Du Quoin Airport	PJY	Local	0
Pontiac	Pontiac Municipal	PNT	Local	20
Robinson	Crawford County	RSV	Local	22
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	Local	20
Shelbyville	Shelby County	2H0	Local	2
Sparta	Sparta Community-Hunter Field	SAR	Local	22
Illinois Basic				
Beardstown	Greater Beardstown	K06	Basic	N/A
Benton	Benton Municipal	H96	Basic	N/A
Cairo	Cairo Regional	CIR	Basic	N/A
Fairfield	Fairfield Municipal	FWC	Basic	N/A
Flora	Flora Municipal	FOA	Basic	N/A
Havana	Havana Regional	9I0	Basic	N/A
Lincoln	Logan County	AAA	Basic	N/A
Metropolis	Metropolis Municipal	M30	Basic	N/A
Monmouth	Monmouth Municipal	C66	Basic	N/A
Mount Sterling	Mount Sterling Municipal	I63	Basic	N/A
Paris	Edgar County	PRG	Basic	N/A
Pittsfield	Pittsfield Penstone Municipal	PPQ	Basic	N/A
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	Basic	N/A
Salem	Salem-Leckrone	SLO	Basic	N/A
Savanna	Tri-Township	SFY	Basic	N/A
Taylorville	Taylorville Municipal	TAZ	Basic	N/A
Vandalia	Vandalia Municipal	VLA	Basic	N/A

Associated City	Airport Name	FAA ID	2021-2025 NPIAS Role	Annual Jet Ops*
Illinois Unclassified				
Greenwood/Wonder Lake	Galt Field	10C	Unclassified	N/A
Harvard	Dacy	0C0	Unclassified	N/A
Paxton	Paxton	1C1	Non-NPIAS	N/A
Poplar Grove	Poplar Grove	C77	Unclassified	N/A
Rushville	Schuy-Rush	5K4	Non-NPIAS	N/A
Tuscola	Tuscola	K96	Unclassified	N/A

Sources: 2021-2025 NPIAS; Kimley-Horn, 2020

Figure 2.5. 2020 IASP Airport Classifications



Source: Kimley-Horn, 2020; ArcGIS, 2020

2.5. Facility and Service Objectives

Illinois's aviation system provides a comprehensive range of facilities and services that support a variety of user needs. FSOs provide the minimum suggested level of facilities and services needed to optimally support the type and volume of aviation activity typified by that state role. FSOs offer specific guidance as to how airports can better service their users and enhance performance at the statewide level.

It should be noted that while FSOs provide clear guidance to assist airport development decision-making, they are not considered requirements. Instead, FSOs should be used as a tool by the airport sponsor and IDOT Aeronautics to better determine project needs during the planning process. An airport that offers facilities and services above or below these recommendations may still fulfill its role based on local needs and context. However, an airport's inability to meet these objectives over time may impact future functionality of the statewide system, and these airports may need to be reclassified to a more suitable role in future system planning efforts.

The IASP FSOs were developed with the assistance of IDOT Aeronautics and the TAC. The facilities and/or services evaluated as part of the FSO analysis are separated by airfield facilities, landside facilities, and airport services. FSOs are analyzed at the systemwide level in **Chapter 3. Inventory and System Adequacy** and at the airport-level in the form of Airport Report Cards presented in **Appendix A**. **Table 2.7** presents the FSOs by IASP Classification.

Table 2.7. 2020 IASP Facility and Service Objectives

Objective Category	Commercial Service	Illinois National	Illinois Regional	Illinois Local	Illinois Basic	Illinois Unclassified
Airfield						
ARC	C-III	C-II	A/B-II	A/B-II Small Aircraft	A-I/B-I	A/B-I Small Aircraft
Primary Runway Length	7,000 ft.	6,000 ft.	5,000 ft.	5,000 ft.	Maintain Existing	Maintain Existing
Primary Runway Width	150 ft.	100 ft.	75 ft.	75 ft.	60 ft.	60 ft.
Primary Runway Surface	Paved	Paved	Paved	Paved	Paved	Maintain Existing
Skid Treatment (Groove/PFC)	Yes	Yes	Yes	Yes	Not an Objective	Not an Objective
Taxiway	Full Parallel	Full Parallel	Full Parallel	Full Parallel	Partial Parallel	Maintain Existing
Runway Markings	Precision	Precision	Precision	Non-Precision	Basic	Maintain Existing
Approach	Precision	Precision	Precision	Non-Precision	Maintain Existing	Maintain Existing
ALS	Yes	Yes	Yes	Not an Objective	Not an Objective	Not an Objective
Rotating Beacon	Yes	Yes	Yes	Yes	Yes	Not an Objective
VGSIs	Yes	Yes	Yes	Yes	Yes	Not an Objective
REILs	Yes	Yes	Yes	Yes	Yes	Not an Objective
Runway Lighting	Yes	Yes	Yes	Yes	Yes	Not an Objective
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes	Yes	Not an Objective	Not an Objective
Taxiway Lighting	Yes	Yes	Yes	Yes	Yes	Not an Objective
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	Maintain Existing
Landside Facilities						
Terminal (GA)	Per ALP	Acceptable ratio of GA terminal square footage to peak hour passengers	Acceptable ratio of GA terminal square footage to peak hour passengers	Acceptable ratio of GA terminal square footage to peak hour passengers	500 sq. ft.	Maintain Existing
Snow Removal Equipment (SRE)	Yes	Yes	Yes	Through mutual aid agreement	Through mutual aid agreement	Through mutual aid agreement
Dedicated Maintenance/SRE Storage Building	Yes	Yes	Yes	Yes – If SRE available No – If SRE unavailable	Yes – If SRE available No – If SRE unavailable	Yes – If SRE available No – If SRE unavailable
Airport Service						
24-Hour Fuel Service (AvGas or Jet A)	Yes	Yes	Yes	Yes	Yes	Not an Objective
Jet A Fuel	Yes	Yes	Yes	Yes	Not an Objective	Not an Objective
Aircraft Deicing	Yes	Yes	Not an Objective	Not an Objective	Not an Objective	Not an Objective
Pilot Area/Flight Planning Area	Yes	Yes	Yes	Yes	Yes	Not an Objective

Source: Kimley-Horn, 2020

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2.5.1. Systemwide Minimum Objectives

In conjunction with FSOs, a set of minimum objectives for all airports regardless of airport classification was developed. These are referred to as systemwide minimum objectives and they represent the minimum level of airfield, landside facilities, and airport services recommended at all airports to maintain safety. These objectives represent the recommended minimum level of airfield facilities, landside facilities, and airport services needed at ALL airports to maintain a safe and efficient aviation system that meets a variety of user needs. **Table 2.8** presents the systemwide minimum objectives for all airports. Systemwide minimum objectives are evaluated and presented as part of **Chapter 3. Inventory and System Adequacy**.

Table 2.8. Systemwide Minimum Objectives

Objective Category	Systemwide Minimum
Airfield	
Lighted Wind Cone/Velocity Indicator	Yes
All Pavement PCI	60 or Greater
Landside Facilities	
Paved Entry Road	Yes
Segmented Circle Marker Where Non-standard Traffic is Used	Yes
Airport Services	
AvGas Fuel	Yes
Courtesy Car	Yes
Internet Access	Yes
Phone Access	Yes
After-Hours Food and Beverage	Yes
24-Hour (Sanitary) Restrooms	Yes
First-Aid Kit	Yes
Potable Water	Yes
Fire Protection	Yes
Access Control	Yes

Source: Kimley-Horn, 2020

2.6. Summary

The process of classifying airports is important at both the federal and state level. This chapter provided an overview of the federal classification process, identified the NPIAS classifications for system airports, and included a re-evaluation of NPIAS criteria and roles to predict possible changes in federal classifications in the future. This chapter also provided an overview of common state classification methodologies and detailed the methodology developed to classify 2020 IASP airports. The IASP classifications established in this chapter are used in subsequent analyses to document system performance by airport classification, identify facility/service duplication or shortfalls, help inform system recommendations, and contribute to the formulation of a systemwide capital improvement plan (CIP).

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Chapter 3. Existing and Future System Adequacy

3.1. Introduction

Fundamental to the 2020 Illinois Aviation System Plan (IASP) is the establishment of a comprehensive, project-specific, dataset for each of the airports within the system that allows for a systemwide analysis of needs. As such, a thorough data collection effort was critical for the success of the IASP. The data collected is used to establish existing conditions and supports subsequent analyses based on the established project goals and associated performance measures (PMs), performance indicators (PIs), and Facility and Service Objectives (FSOs), which are detailed in **Chapter 1. System Goals and Performance Measures**.

This chapter presents the findings of the IASP inventory effort and uses the findings to determine system adequacy – providing detail on how well the state is performing in meeting the overall goals of the IASP as well as the Illinois Department of Transportation's (IDOT) Long Range Transportation Plan.

First, the chapter introduces the Illinois aviation system and presents an overview of the data collection effort for the 2020 IASP. Following this introduction, the results (performance) of each PM and PI are presented across all goal categories. For PMs specifically, future performance targets were established which identified gaps and deficiencies at Illinois system airports. In addition to the PM and PI results, the results of the systemwide FSO analyses are presented at the conclusion of this chapter. FSOs were established and introduced at the conclusion of **Chapter 2. Airport Classifications**. FSOs outline the minimum recommended level of facilities and services for each airport based on its IASP airport classification.

The IASP goals and associated PMs and PIs were established in **Chapter 1. System Goals and Performance Measures**. The five IASP goals are listed below:

- **Goal #1 – Economy**: Improve Illinois's economy by providing transportation infrastructure that supports the efficient movement of people and goods
- **Goal #2 – Livability**: Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment
- **Goal #3 – Mobility**: Support all modes of transportation to improve accessibility and safety by improving connections
- **Goal #4 – Resiliency**: Proactively assess, plan, and invest in the state's transportation system to ensure our infrastructure is prepared to sustain and recover from extreme events and other disruptions
- **Goal #5 – Stewardship**: Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois's transportation system

The remainder of this chapter is organized by the following sections:

- IASP Airports
- Inventory Process
- Performance Measures, Performance Indicators, and Future Performance Targets
- Airfield Capacity Analysis
- Facility and Service Objectives
- Systemwide Minimum Objectives
- Summary

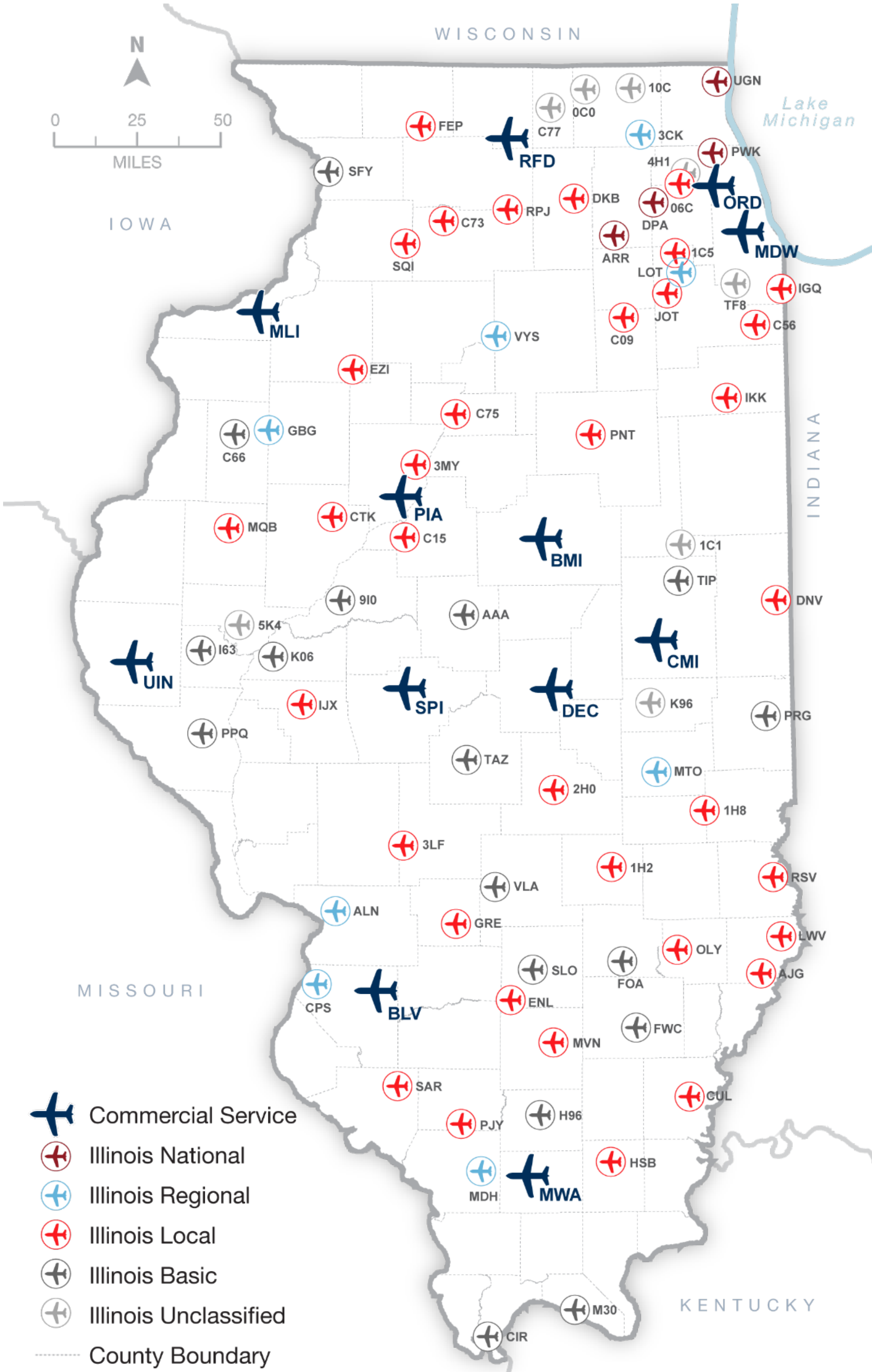
3.2. IASP Airports

As noted in **Chapter 1. System Goals and Performance Measures**, the IASP consists of 85 study airports, 12 commercial service airports, 71 general aviation (GA) airports, and two heliports. Of these 85 study airports, 82 are included in the FAA's National Plan of Integrated Airport Systems (NPIAS) and three are not included and are referred to as non-NPIAS airports. **Chapter 2. Airport Classifications** detailed the process to establish state classifications for each of the 85 airports, with the GA airports assigned to one of five state classifications and all commercial service airports having the same commercial service classification.

While there are 85 airports in the IASP system, two are heliports whose facility needs greatly differ from a standard airport. As such, the two heliports were not evaluated in the system performance metrics documented in this chapter. **Figure 3.1** illustrates the IASP system of airports.

ILLINOIS AVIATION SYSTEM PLAN

Figure 3.1. IASP Airports



Sources: ArcGIS, 2020; Kimley-Horn, 2020

3.3. Inventory Process

The primary means of collecting data for the study was completed through an airport inventory survey, referred to as the IASP Inventory Form. The IASP Inventory Form included a wide array of questions that sought to comprehensively collect data to provide a framework of each airport's existing conditions as they relate to the IASP Goals, PMs, PIs, and FSOs. The IASP Inventory Form contained questions categorizing all essential data points required to evaluate the system. The IASP Inventory Form was 24 pages long and contained nine major sections of questions presented in **Table 3.1**. Data pertaining to the Illinois Aviation Economic Impact Analysis (EIA) was also collected as a part of the IASP Inventory Form.

Table 3.1. IASP Inventory Form Data Categories

IASP Inventory Form Sections	Example Data Categories
General Airport Information	◆ Airport Contact Information
Airside	◆ Runways ◆ Taxiways ◆ Visual Aids ◆ Navigational Aids
Landside	◆ Terminal ◆ Hangars and Tiedowns ◆ Airport Infrastructure ◆ Aviation Services ◆ Fuel Options ◆ Snow Removal
Aviation Services	◆ Fixed-base Operator (FBO) ◆ Fuel Farm ◆ Aircraft Maintenance ◆ Flight Instruction
Airport Activity	◆ Types and number of operations ◆ Enplanements ◆ Based Aircraft ◆ Air Ambulance/Medical ◆ Aerial Agriculture Application
Mobility and Access	◆ Ground Transportation ◆ Automobile Parking ◆ Paved Entry
Airport Safety	◆ Drone Reporting and Compliance ◆ Law Enforcement Operations ◆ Generator and Backup Power ◆ Aircraft Rescue and Firefighting
Airport Planning	◆ Airport Master Planning ◆ Review of IDOT's Project Management ◆ Environment/Land Use Compatibility ◆ Land Use and Zoning

Source: Kimley-Horn, 2020

Prior to distribution of the surveys, readily available data from existing IDOT and FAA sources was pre-populated in the surveys with information unique to each airport. Surveys were only partially pre-populated as many of the necessary data points required to analyze each airport for the system plan were unavailable from the FAA or other industry sources. The IASP Inventory Form was provided to each of the 85 airports in the system.

Surveys are traditionally completed during in-person airport site visits where a member of the project team meets with an airport representative. However, due to restrictions in response to COVID-19, as well as an increased effort to keep project team and airport staff safe, in-person site visits were not possible. Instead, the project team opted to conduct virtual site visits via online video conferences and phone calls.

The inventory data is presented within the subsequent analysis of the existing system adequacy so as to not duplicate the immense amount of material that was compiled and collated at the conclusion of the data gathering. All data obtained through the inventory process are utilized in some fashion, primarily in the measurement of performance.

3.4. Performance Measures, Performance Indicators, and Future Performance Targets

This section presents existing and future IASP analyses (PMs and PIs) by goal category. Existing and future analyses are broken out separately, as documented below.

Existing Conditions

As discussed in **Chapter 1. System Goals and Performance Measures**, the 2020 IASP goals were developed to provide an overall direction for achieving IDOT's desired aviation system performance. The goals provide a framework that, in conjunction with the data-driven results of the system adequacy analyses, inform IASP recommendations. The system's adequacy was evaluated by established performance-related metrics associated with each goal, referred to as PMs, PIs, and FSOs. PMs and PIs serve similar functions because they are both used to assess system adequacy. However, the results of the PM analyses are used to directly inform IASP project and policy recommendations, whereas PIs are informational only and do not directly result in recommendations. PM and PI analysis results are presented by state airport classification established in **Chapter 2. Airport Classifications**. The existing system adequacy results are presented by goal and organized by PM and PI. The PM and PI analyses are presented systemwide and by airport classification.

Future Targets

The future system adequacy evaluation consists of a statewide examination and a breakdown of airports by airport classification by goal for PMs only. PIs are **not** accompanied by a future performance target. Identifying the future system adequacy by airport classification and on a statewide level supports informed decision-making about resource allocation to ensure state transportation goals are met in an efficient manner. As noted previously, airport classifications were established in **Chapter 2. Airport Classifications** using a methodology based on NPIAS Report classifications, type of airport operations, and number of annual jet operations. The six airport classifications include:

- Commercial Service
- Illinois National
- Illinois Regional
- Illinois Local
- Illinois Basic
- Illinois Unclassified

Please note, for all subsequent evaluation of Future System Adequacy, data is reported using 2019 as the base year and is current as of the time the data was collected.[11] While all IASP airports are not included in the NPIAS, FAA standards are generally used for all airports as they represent appropriate standards to by applied in most conditions.

3.4.1. Goal 1: Economy

The purpose of the IASP Economy Goal is to improve Illinois's economy by providing transportation infrastructure that supports the efficient movement of people and goods. The intent of this goal is to support aviation development that enhances airport safety, while also supporting local, regional, and state economies. Therefore, the PMs and PIs associated with this goal evaluate how airports are meeting FAA design standards, primary runway approach obstructions, airport development planning, and identify airports that support aviation flight training, air ambulance and aerial agricultural application operations, and more.

3.4.1.1. Performance Measures and Future Performance Targets

This section presents the findings of the PMs associated with Goal 1: Economy as well as establishes future performance targets to determine gaps and/or deficiencies in facilities or services at IASP airports. The PMs for this goal are:

- Percent of airports that have completed a Master Plan/ALP within the last 10 years (2010 or newer)
- Percent of airports with primary runway approaches negatively impacted by obstructions
- Percent of airports meeting FAA taxiway geometry standards, including direct access taxiways
- Percent of airports that meet FAA Runway Safety Area (RSA) standards
- Percent of population within a 30-minute drive time of an airport with weather reporting capabilities

Percent of Airports that have Completed a Master Plan/ALP in the Last 10 Years (2010 or Newer)

Airport Master Plans and Airport Layout Plans (ALPs) are critical planning tools developed at the airport level to establish existing conditions and plan for future developments. Airports that are eligible for FAA funding must maintain a current ALP and/or Master Plan in order to be eligible for grants. Non-NPIAS airports are not required to produce a Master Plan or ALP; however, they are useful planning tools for airports of all sizes and activity levels.

A Master Plan is akin to a guide because it represents the airport's plan for long-term development. A Master Plan is developed to accomplish goals such as:

- Provide a graphic representation of existing airport features and future airport development
- Establish a realistic budget and schedule for implementation of the proposed development
- Validate the plan technically and procedurally through investigation of concepts and alternatives
- Present a plan that adequately addresses issues and satisfies local, state, and federal regulations

An ALP is an airport planning document that shows the current layout of the airport including the airside and landside environment. The ALP is used to show proposed projects over time and how these projects will affect the airport environment and surrounding area. In many cases, an ALP is developed in

[11] Airport data was collected between January and July 2020.

conjunction with a Master Plan, however, an ALP can be developed with only cursory documentation to support the proposed developed depicted on the ALP. By definition, the ALP is a plan for an airport that shows:

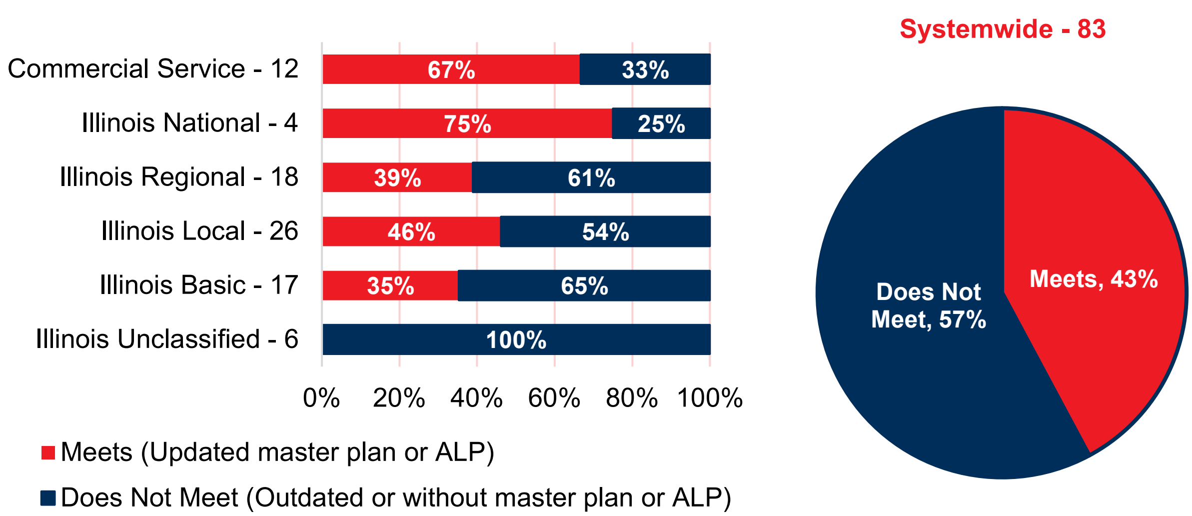
- Boundaries and proposed additions to all areas owned or controlled by the sponsor for airport purposes
- The location and nature of existing and proposed airport facilities and structures
- The location on the airport of existing and proposed non-aviation areas and improvements therein

To be issued an Airport Improvement Program (AIP) grant, a current FAA-approved ALP showing the proposed airport development for which the grant is being sought is required. The FAA notes that an ALP that has not been updated for several years is usually deficient.

Existing Conditions

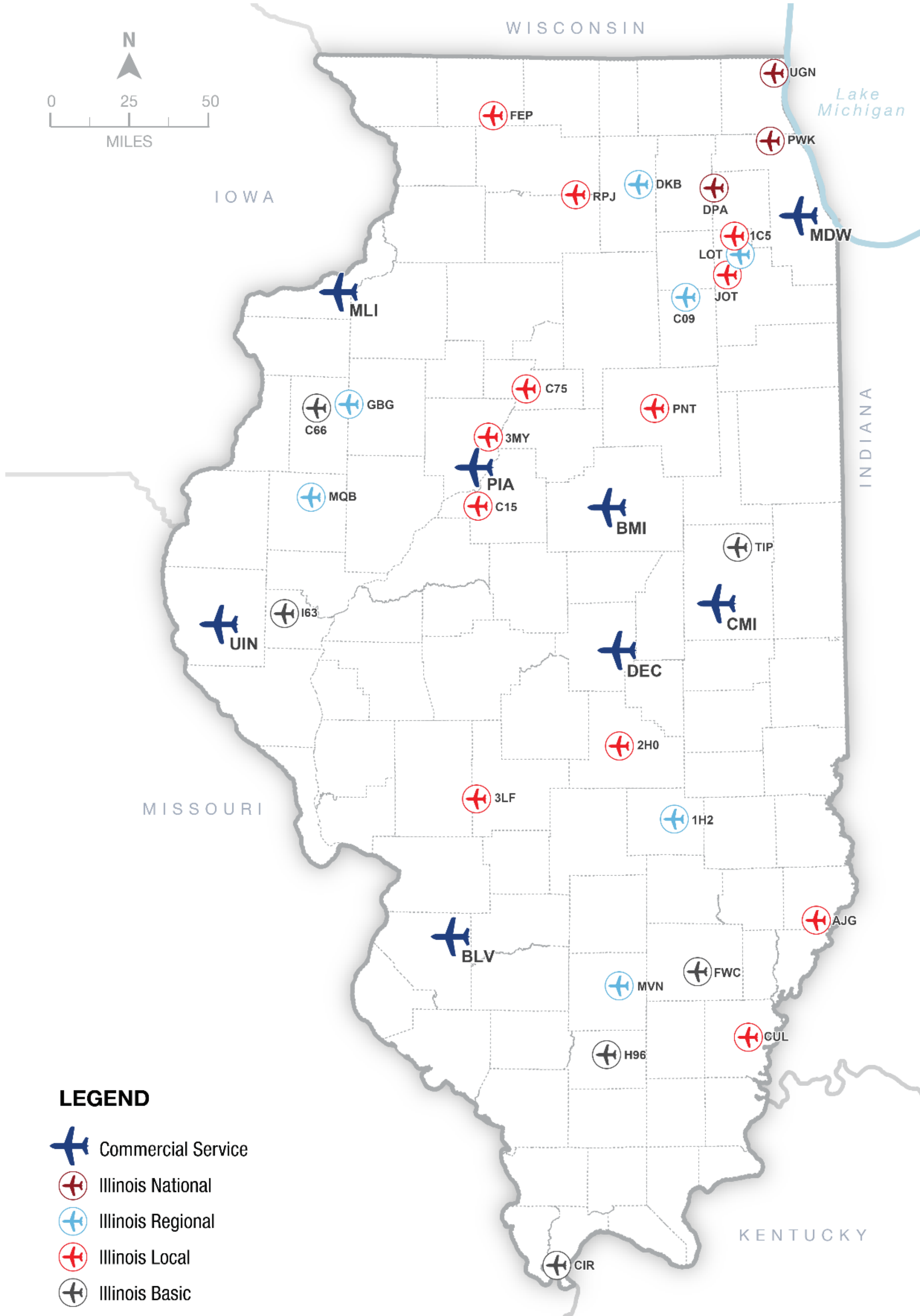
To assess this PM, airports were asked if they have a Master Plan or an approved ALP and the year the plan was last updated. Systemwide, 43 percent of airports meet the Master Plan/ALP PM because they have a master plan or ALP developed within the last 10 years, as presented in **Figure 3.2**. Sixty-seven percent of Commercial Service, 75 percent of Illinois National, 39 percent of Illinois Regional, 46 percent of Illinois Local, and 35 percent of Illinois Basic meet this PM. None of the Illinois Unclassified airports reported having an up-to-date Master Plan or ALP. **Figure 3.3** depicts the IASP airports with a current Master Plan or ALP.

Figure 3.2. Percent of Airports that have Completed a Master Plan/ALP in the Last 10 Years (2010 or Newer)



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.3. Airports that have Completed a Master Plan/ALP in the Last 10 Years (2010 or Newer)



Sources: ArcGIS, IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

The future performance target for this PM is set at 100 percent for all airports due to the importance of FAA- and/or IDOT-approved planning at the individual airport level. Master Plans and ALPs are typically updated once every seven to 10 years, or more often if there are significant changes at the airport or in the community. Commercial service airports typically update their master plans more often than general aviation (GA) airports, but it depends on changes at the airport and with FAA and/or IDOT design standards and guidance. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies. **Table 3.2** presents current performance and future performance targets for each airport classification as well as at the systemwide level.

Table 3.2. Percent of Airports by Classification that have Completed Master Plan and/or ALP in the Last 10 Years (2010 or Newer) – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	67%	100%
Illinois National - 4	75%	100%
Illinois Regional - 18	39%	100%
Illinois Local - 26	46%	100%
Illinois Basic - 17	35%	100%
Illinois Unclassified - 6	0%	100%
Systemwide - 83	**43%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

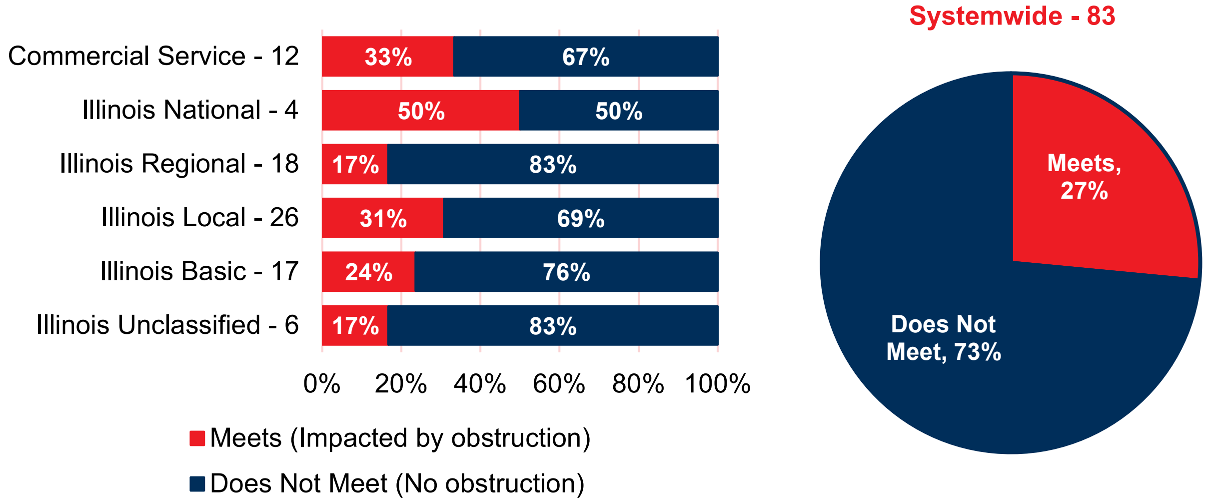
Percent of Airports with Primary Runway Approaches Negatively Impacted by Obstructions

An approach is a series of procedures dictating an aircraft's route, direction, and rate of descent to a runway. There are three main types of approaches including visual, non-precision, and precision. Approaches can be negatively impacted by obstructions, which are man-made or natural objects, that hinder the safe and efficient use of an approach to an airport. Obstructions are presumed to be a hazard to the navigability of the Part 77 approach surface and require a study by the FAA to ensure that the obstruction will not negatively impact the safety of the airport approach surface. As discussed in more in detail in **Chapter 6. Land Use Evaluation and Environmental Considerations**, Part 77 surfaces are imaginary surfaces governed by Title 14 Code of Federal Regulations (CFR) that dictate development restrictions in an airport's navigable airspace. Trees and powerlines are among the most common obstructions at airports.

Existing Conditions

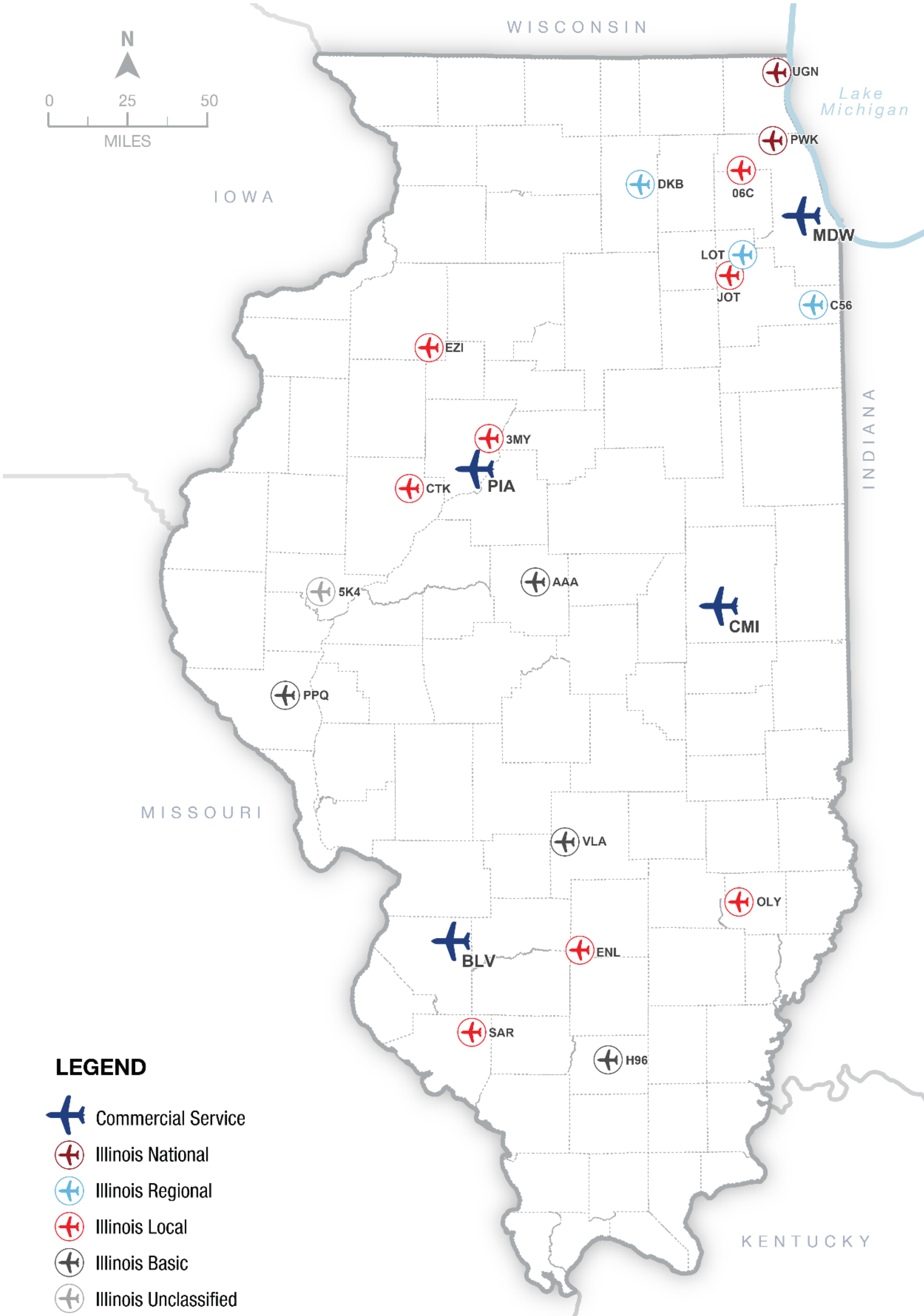
Based on approach data collected from various sources including the IASP Inventory Form, SkyVector.com, and the FAA's 5010 Master Record, 27 percent of airports systemwide meet the negatively impacted primary approach PM because they have a primary runway approach that is negatively impacted by an obstruction. As presented in **Figure 3.4**, 33 percent of Commercial Service, 50 percent of Illinois National, 17 percent of Illinois Regional, 31 percent of Illinois Local, 24 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports meet this PM. **Figure 3.4** depicts the IASP airports with obstructions that negatively impact their primary runway. It is important to note that the percent of airports meeting this PM is indicative of a low percentage of airports having their primary runways negatively impacted by an obstruction/s. Ideally, airports are not impacted negatively by obstructions, so a lower percentage here is the preferred condition.

Figure 3.4. Percent of Airports with Primary Runways Negatively Impacted by Obstructions



Sources: FAA Form 5010, IASP Inventory Form, 2020; SkyVector.com; Kimley-Horn, 2020

Figure 3.5. Airports with Primary Runways Negatively Impacted by Obstructions



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.3**, the future performance target for this PM is set at zero percent (i.e., zero percent of IASP airports should have reduced approach slopes due to an obstruction). The actions needed are primarily related to trimming or removing trees, although there are other obstructions that require mitigation within the system. It should be noted that this statewide analysis focused on obstructions within the Approach surface only. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.3. Percent of Airports by Classification with Primary Runway Approaches Negatively Impacted by Obstructions – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	33%	0%
Illinois National - 4	50%	0%
Illinois Regional - 18	17%	0%
Illinois Local - 26	27%	0%
Illinois Basic - 17	18%	0%
Illinois Unclassified - 6	17%	0%
Systemwide - 83	**24%**	**0%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Airports Meeting FAA Taxiway Design Standards Including Direct Access Taxiways

The FAA establishes certain airport design criteria to encourage safe operations. Design criteria are frequently monitored and updated by the FAA to determine if changes to aircraft, such as faster aircraft, wider wingspans, and other equipment require updates to standards. In 2014, the FAA published new design standards for taxiways in the *Advisory Circular 150/5300-13A, Change 1* that addresses three design concerns:

Direct Access

Direct access taxiways lead an aircraft directly from an apron to a runway without requiring a turn. These configurations can lead to confusion when a pilot typically expects to encounter a parallel taxiway, but instead accidentally enters a runway. An example of a direct access conflict is provided in **Figure 3.6**.

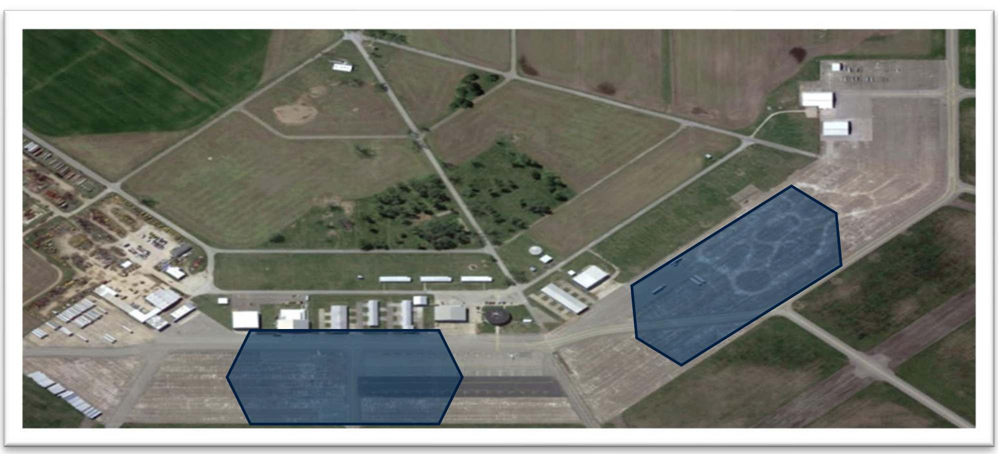
Figure 3.6. Direct Access Taxiway

Sources: Google Earth, Kimley-Horn, 2021

Wide Expanse of Pavement

FAA recommendations advise avoiding wide expanses of pavement within the taxiway and runway interface. Wide expanses of pavement require placement of signs far from a pilot's eye and reduce the visibility of other visual cues. Under low visibility conditions signs can be missed. An example of wide expanses of pavement is provided in **Figure 3.7**.

Figure 3.7. Wide Expanse of Pavement



Sources: Google Earth, Kimley-Horn, 2021

Three-Node Intersection

FAA recommendations advise adherence to the three-node design principle to keep intersections simple and reduce the number of taxiways intersecting at a single location. The three-node concept means that a pilot is presented with no more than three choices at an intersection – ideally left, right, and straight ahead. **Figure 3.8** shows an example of a location with more than three nodes.

Figure 3.8. Three-Node Intersection

Sources: Google Earth, Kimley-Horn, 2021

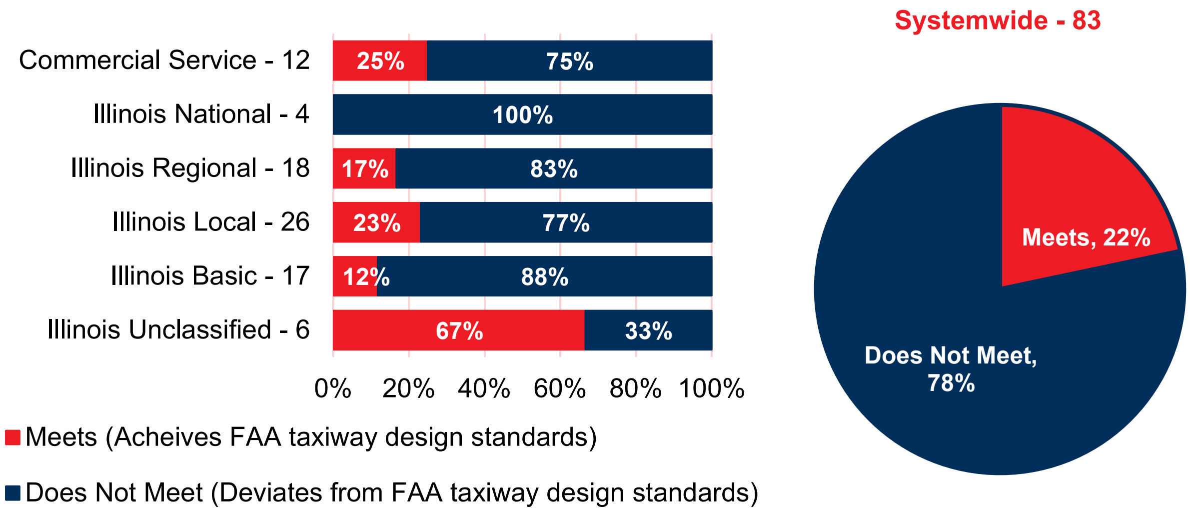
Existing Conditions

System airports were evaluated to determine if any of these three design concerns existed on their taxiways. This analysis was conducted to identify the airports that may require future airfield geometry updates. The FAA is not likely to fund a singular stand-alone taxiway redesign project; however, the FAA has funded taxiway geometry re-design projects as part of other airfield projects.

The analysis for this PM was conducted by reviewing and comparing the design standards referenced in FAA AC 150/5300-13A, Change 1 to Google Earth aerial images of the airports and review of ALPs. An airport did not meet this PM if there was at least one non-standard taxiway design occurrence.

Systemwide, 22 percent of airports meet the FAA taxiway design standards PM because no taxiway design standard deviations were observed, as presented in **Figure 3.9**. Twenty five percent of Commercial Service, 17 percent of Illinois Regional, 23 percent of Illinois Local, 12 percent of Illinois Basic, and 67 percent of Illinois Unclassified airports meet the FAA taxiway design standards PM. None of the Illinois National airports meet FAA taxiway design standards. It is not surprising that many airports in Illinois, and in the U.S., have non-standard taxiways considering taxiway design standards were only recently updated and adopted by the FAA. **Figure 3.9** depicts the IASP airports that meet FAA taxiway design standards. As a note, if direct access violations were excluded from FAA taxiway design standards, then 81 percent of the system would be meeting these FAA taxiway design standards. The number of airports, by classification, that would be meeting FAA taxiway design standards if direct access violations were excluded is presented in **Table 3.4**.

Figure 3.9. Percent of Airports Meeting FAA Taxiway Design Standards



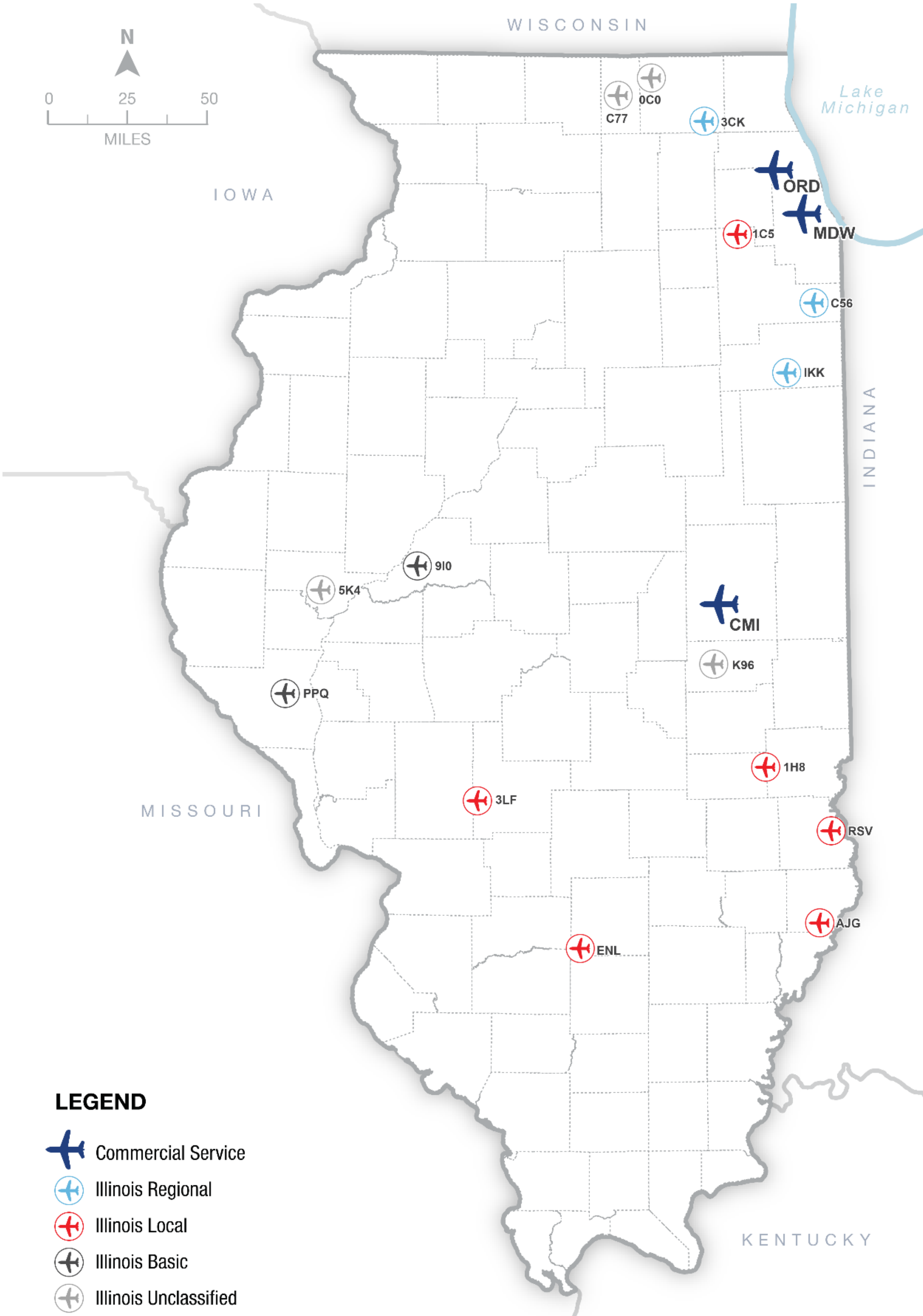
Sources: FAA AC 150/3500; Google Earth, Master Plans/ALPs; Kimley-Horn, 2020

Table 3.4. Number of Airports by Classification Meeting FAA Taxiway Geometry Standards if Direct Access Violations Were Excluded

IASP State Classification and Number of Airport	Number of Airports Achieving Taxiway Geometry Standards, Excluding Direct Access
Commercial Service - 12	8
Illinois National - 4	1
Illinois Regional - 18	16
Illinois Local - 26	22
Illinois Basic - 17	14
Illinois Unclassified - 6	6
Systemwide - 83	**67**

Sources: FAA AC 150/3500; Google Earth, Master Plans/ALPs; Kimley-Horn, 2020

Figure 3.10. IASP Airports Meeting FAA Taxiway Design Standards



Sources: Kimley-Horn 2021, Google Earth

Future Targets

As shown in **Table 3.5**, the future performance target for this PM is set at 100 percent for all IASP airports. Twenty-two percent of the system meets current standards; however, it is important to note that many of the current performance issues are due to the change in FAA design criteria compared to when the pavement was constructed. IDOT and the FAA are cognizant that it will take time for airports to update their airfield geometries in accordance with the latest design standards. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.5. Percent of Airports by Classification Meeting FAA Taxiway Geometry Standards Including Direct Access Taxiways – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	25%	100%
Illinois National - 4	0%	100%
Illinois Regional - 18	17%	100%
Illinois Local - 26	23%	100%
Illinois Basic - 17	12%	100%
Illinois Unclassified - 6	67%	100%
Systemwide - 83	**22%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Airports Meeting FAA RSA Standards

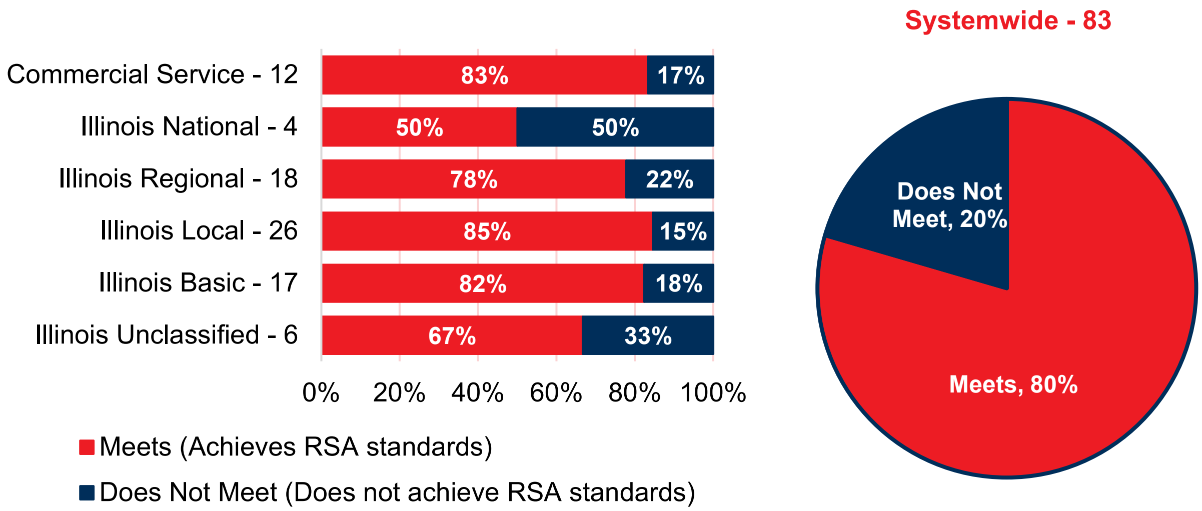
Runway Safety Areas (RSAs) are buffers surrounding a runway that are designed to protect the aircraft, people, and property, in the event of an aircraft undershoot, overrun, or other incident during take-off and landing procedures. The dimensions of an airport's RSA are based on Runway Design Code (RDC) as outlined in FAA *AC 150/5300-13A*, *Change 1*. An RSA can range from 120 feet to 500 feet in width from the runway centerline and 240 feet to 1,000 feet in length from the end of the runway. RSAs should be completely clear of any obstructions, including trees, shrubbery, or water, as well as man-made structures, including buildings, roadways, fences, and more.

In order for an airport to meet the PM for FAA RSA standards, the RSA must appear to be graded and clear of any obstructions within the buffer based on review of imagery from Google Earth, master plans, and ALPs.

Existing Conditions

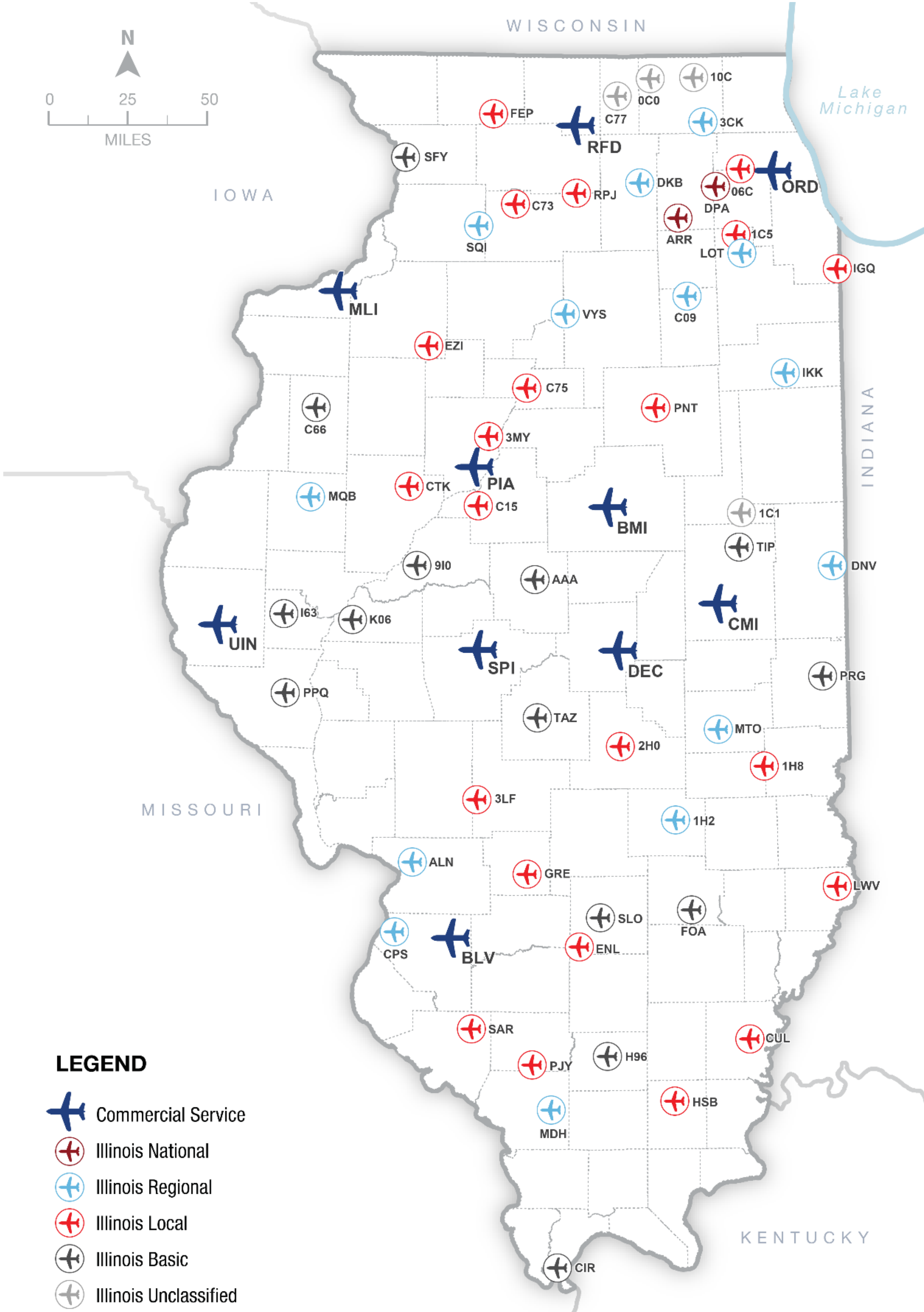
Systemwide, 80 percent of airports meet the FAA RSA standards PM because their RSAs were observed as clear from obstructions, including structures, roadways, water bodies, and trees or tall shrubbery, as presented in **Figure 3.11**. Eighty-three percent of Commercial Service, 50 percent of Illinois National, 78 percent of Illinois Regional, 85 percent of Illinois Local, 82 percent of Illinois Basic, and 67 percent of Illinois Unclassified airports meet the FAA RSA standards PM. **Figure 3.12** depicts the IASP airports meeting FAA RSA standards.

Figure 3.11. Percent of Airports Meeting FAA RSA Standards



Sources: FAA AC 150/3500; Google Earth; Master Plans/ALPs; Kimley-Horn, 2020

Figure 3.12. Airports Meeting FAA RSA Standards



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

The future performance target for this PM is set at 100 percent for all IASP airports, as shown in **Table 3.6**. In recent years, RSA standards have become a heightened point of emphasis at the FAA, which justifies the 100 percent systemwide future performance target. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.6. Percent of Airports by Classification That Meet FAA RSA Standards – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	83%	100%
Illinois National - 4	50%	100%
Illinois Regional - 18	78%	100%
Illinois Local - 26	88%	100%
Illinois Basic - 17	88%	100%
Illinois Unclassified - 6	67%	100%
Systemwide - 83	**82%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Population within a 30-Minute Drive of an Airport with Weather Reporting Capabilities

Weather reporting facilities consist of a series of equipment that broadcast minute-by-minute weather data directly to pilots via radio broadcast. Towered airports can transmit weather data via the Air Traffic Control Towers (ATCT). Non-towered airports rely on automated weather reporting systems that report weather conditions. The two most common weather reporting systems include:

- **Automated Weather Observing Systems (AWOS):** a weather reporting system that reports at 20-minute intervals and does not report special observations for rapidly changing weather conditions.
- **Automated Surface Observing System (ASOS):** a weather reporting system with automated sensors that are designed to serve meteorological and aviation observing needs. These systems generally report at hourly intervals, as well as special observations if weather conditions change rapidly and cross aviation operation thresholds.

Existing Conditions

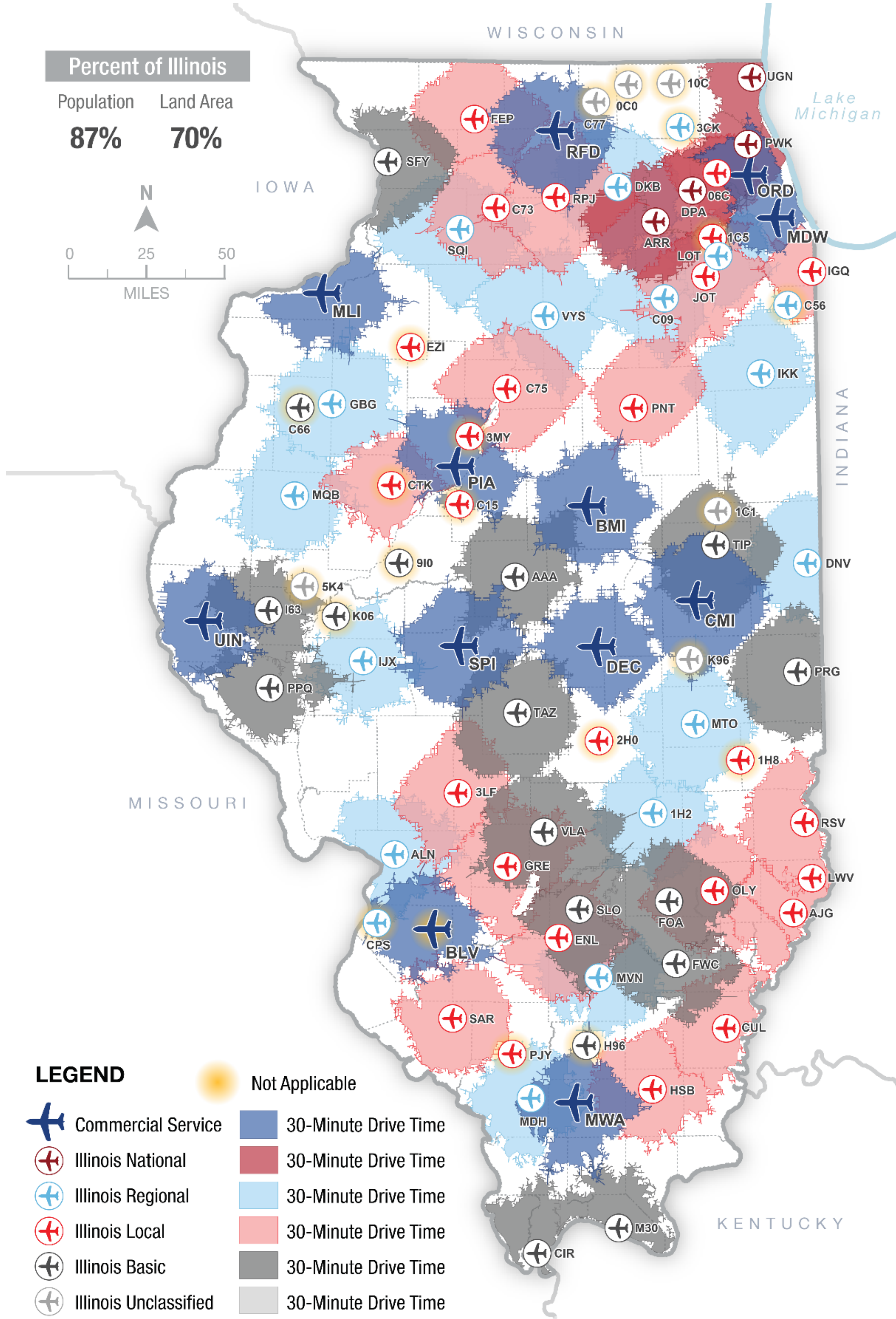
This PM assesses the state population's access to an Illinois system airport with weather reporting capabilities. This analysis was conducted using GIS and United States Census data. For the purpose of this analysis, the population and land area of neighboring states as well as intrastate population coverage overlaps were not included. As presented in **Figure 3.13**, 87 percent of Illinois's population, or approximately 11 million people, live within a 30-minute drive to an airport with weather services, this accounts for 70 percent of Illinois's overall land mass, or approximately 58,000 square miles. Systemwide, 76 percent of airports have weather reporting services. **Table 3.7** shows the number of airports within each IASP classification with weather reporting services.

Table 3.7. Airports by Classification with On-Site Weather Reporting

IASP State Classification and Number of Airport	Number of Airports with Weather Reporting
Commercial Service - 12	12
Illinois National - 4	4
Illinois Regional - 18	15
Illinois Local - 26	19
Illinois Basic - 17	13
Illinois Unclassified - 6	0

Sources: 2020 IASP Inventory Form; Kimley-Horn, 2020

Figure 3.13. Percent of Population within a 30-Minute Drive of an Airport with On-site Weather



Sources: ESRI Community Analyst, Community Profile, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.8**, the future performance target for this PM is set at 100 percent for Commercial Service, Illinois National, Illinois Regional, and Illinois Local airports which is consistent with Facility and Service Objectives (FSOs). On-site weather reporting is not a target for Illinois Basic or Illinois Unclassified airports. However, Illinois Basic and Illinois Unclassified airports with existing operational weather reporting facilities should continue to maintain them to the greatest extent possible. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.8. Percent of Airports by Classification with On-Site Weather Reporting – Future Performance Target

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	100%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	83%	100%
Illinois Local - 26	73%	100%
Illinois Basic - 17	76%	Not a target
Illinois Unclassified - 6	0%	Not a target
Systemwide - 83	**76%**	**88%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Goal #1 – Illinois Airport System Needs Summary

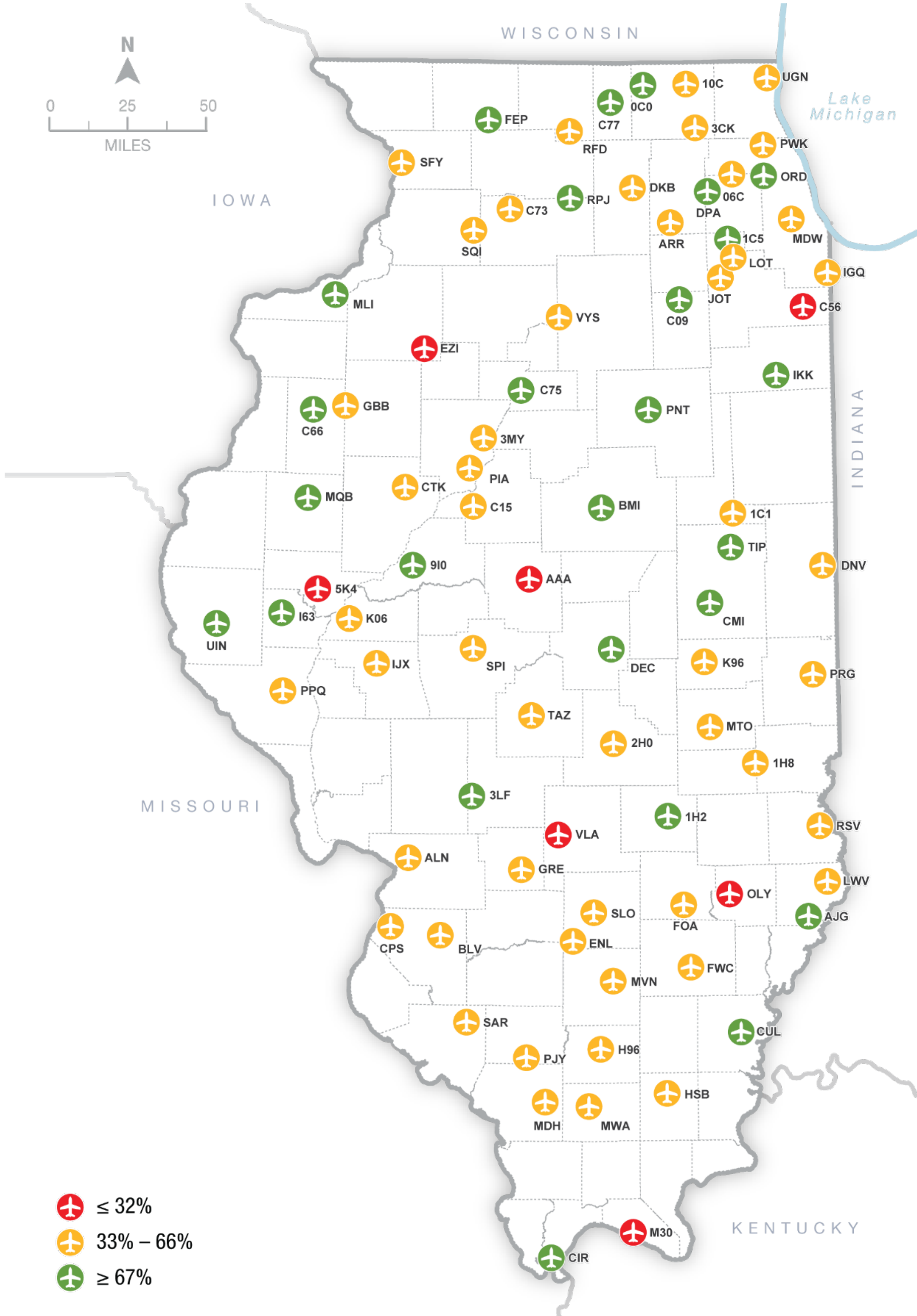
The following section summarizes and illustrates systemwide performance related to Goal #1 analyses. **Table 3.9** below describes the components of **Figure 3.14**. Of the 83 system airports, seven are red, 50 are yellow, and 26 are green.

Table 3.9. Illinois Airport System Needs Summary – Goal #1

Icon	Description	Number of Airports
	Achieves one out of five PMs in Goal #1 (≤32%)	7
	Achieves two or three out of five PMs in Goal #1 (33%-66%)	50
	Achieves four or five out of five PMs in Goal #1 (≥67%)	26

Source: Kimley-Horn, 2021

Figure 3.14. Goal #1 – Illinois Airport System Needs Summary Map



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

3.4.1.2. Performance Indicators

This section presents the findings of the PIs associated with Goal 1: Economy. It should be noted that PIs are not are not accompanied by future performance targets because IDOT does not have the direct ability to improve performance. The PIs for this goal are:

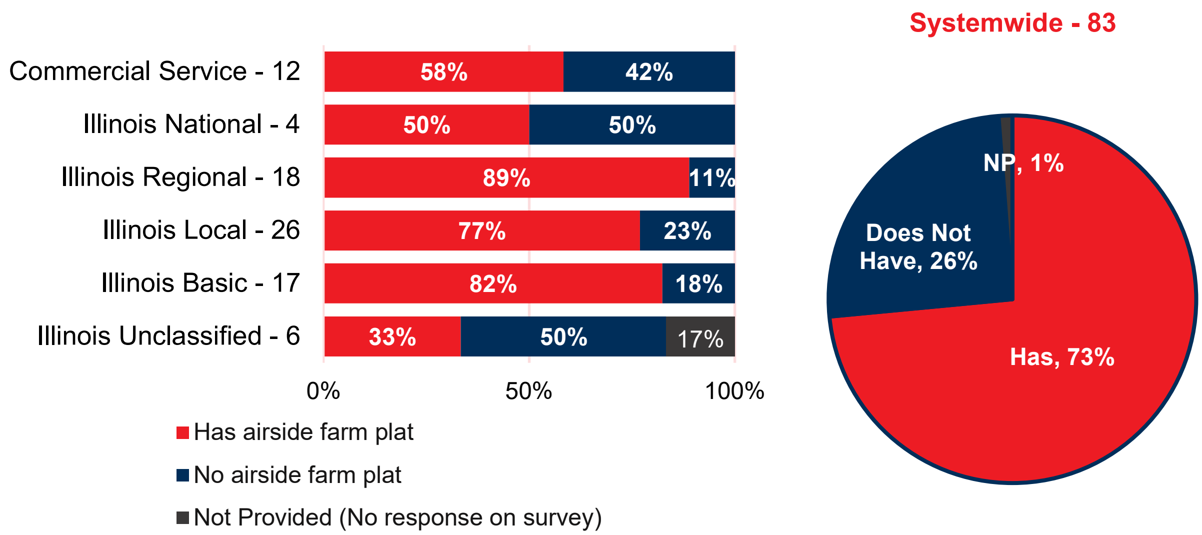
- Percent of airports with current airside farm plats
- Percent of airports with the potential for runway/extension project – including land already purchased
- Percent of airports providing flight training
- Percent of airports with aging facilities (terminal buildings, hangars, etc.) as defined by the FAA
- Percent of airports that have American with Disabilities Act (ADA)-compliant terminal buildings
- Percent of airports that experience aerial agricultural application operations
- Percent of airports that experience air ambulance operations
- Percent of airports that experience government operations or law enforcement operations

Percent of Airports with Current Airside Farm Plats

A farm plat is a parcel of land used for agricultural purposes such as farming and raising livestock. Because the FAA considers certain types of farmland as compatible uses, airports can lease excess land to farmers to generate additional revenue.

To assess this PI, airports were asked if their airport has airside farm plats on airport property. Systemwide, 73 percent of airports reported having an airside farm plat, as presented in **Figure 3.15.** Fifty eight percent of Commercial Service, 50 percent of Illinois National, 89 percent of Illinois Regional, 77 percent of Illinois Local, 82 percent of Illinois Basic, and 33 percent of Illinois Unclassified airports have an airside farm plat. One system airport did not respond to this question on the IASP Inventory Form, accounting for one percent of the system being considered "Not Provided (NP)."

Figure 3.15. Percent of Airports with Current Airside Farm Plats



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

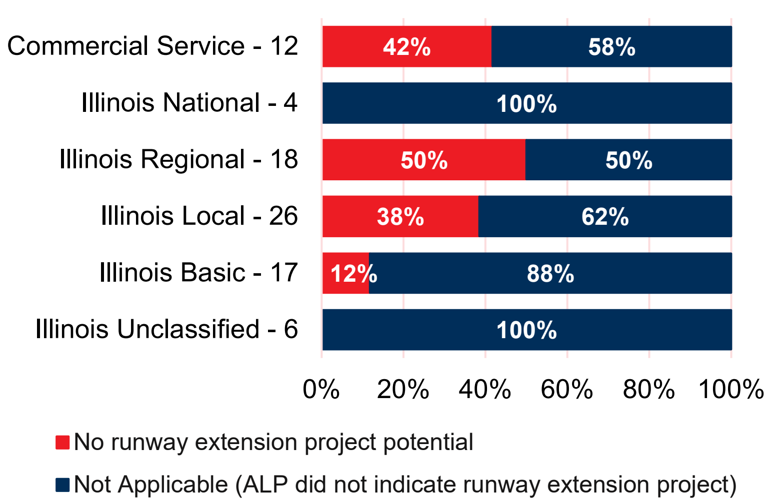
Percent of Airports with the Potential for Runway/Extension Projects – Including Land Already Purchased (500+ aircraft operations that exceed Runway Design Code [RDC]/Airport Reference Code [ARC])

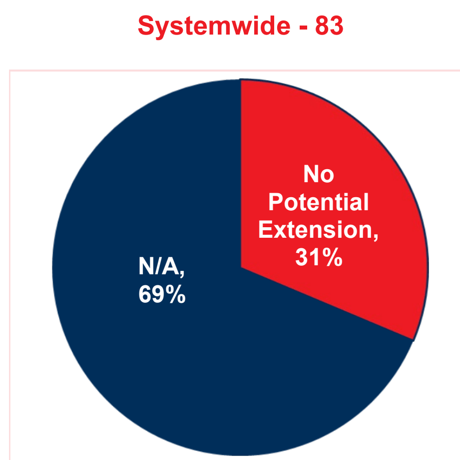
One of the ways system planning can address meeting future needs is to determine how many airports have the potential to support runway extension projects. There are two primary indicators that identify an airport's ability and need to extend its runway. First, runway extension projects may be necessary for airports that are experiencing 500 or more operations by an aircraft more demanding than the airport's ARC. The ARC was selected for this evaluation because the analysis did not look at specific runways, rather the airport overall. The ARC is informed by the airport's RDC and the most demanding RDC becomes the airports ARC. Second, airports can prepare for potential runway extension projects by indicating on their ALPs where land has already been purchased or designated for future expansion. Identifying and securing the necessary land needed prior to undergoing an expansion can ensure that the land will be available to the airport when it is needed.

Airports had to meet two criteria to meet this PI: 1) they had to indicate on their IASP Inventory Form that there is land secured for a runway extension project as indicated on their approved ALP; and 2) the airport must experience 500 or more annual operations by a more demanding aircraft than indicated by the airport's current ARC. Traffic Flow Management System Count (TFMSC) data was collected for calendar year 2019 for the airports that indicated having land identified on their approved ALP for expansion projects. This data was analyzed to determine if any of these airports experienced 500 or more annual operations during 2019 by a more demanding aircraft than the airport's ARC.

Systemwide, 31 percent of airports reported having an ALP that identifies land ownership for expansion projects, however none of these airports experienced 500 or more operations by aircraft larger and more demanding than their ARC. Therefore, no airports meet this PI, as presented in **Figure 3.16**. Sixty-nine percent of the system (57 airports) did not report having either an approved ALP, an ALP that shows a runway extension, or did not report owning the land for the extension and were therefore considered "Not Applicable (N/A)" for this analysis.

Figure 3.16. Percent of Airports with Potential for Runway Extension Projects





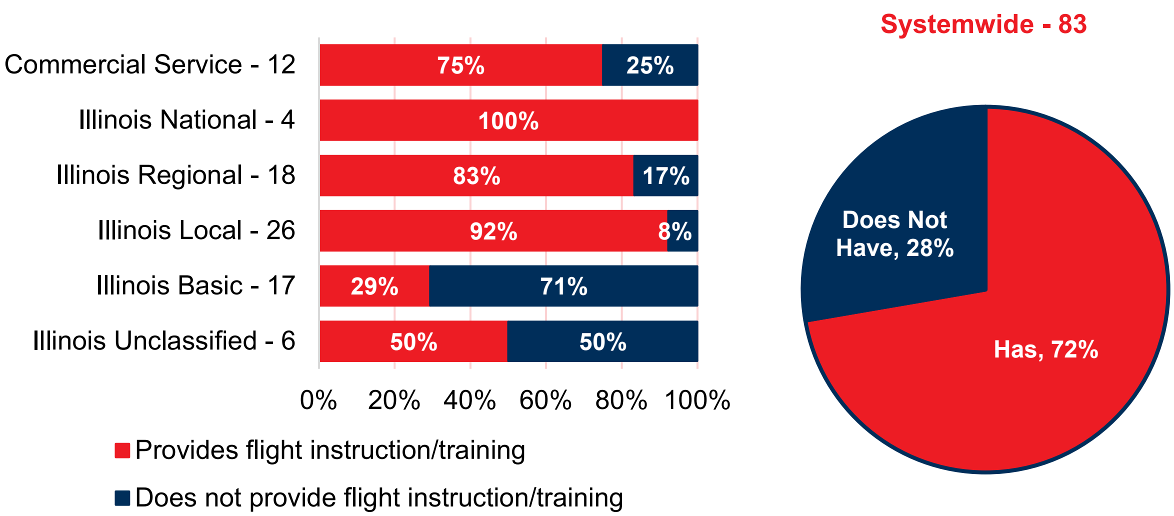
Sources: IASP Inventory Form, 2020; TFMSC Data, 2019; Kimley-Horn, 2020

Percent of Airports Providing Flight Training

Flight training activity is indicative of revenue generation by way of fuel sales, ground leases, and business revenues through tuition and flight fees. Flight training at an airport also indicates a level of continued operational activity as students often fly in the pattern performing touch-and-go's. Understanding which airports in the system have flight schools on airport property can help to provide greater context at the airport and the regions from an operational standpoint.

Airports were asked if their airport provides flight instruction or training services. Systemwide, 72 percent of airports provide flight training, as presented in **Figure 3.17**. Seventy-five percent of Commercial Service, all Illinois National, 83 percent of Illinois Regional, 92 percent of Illinois Local, 29 percent of Illinois Basic, and 50 percent of Illinois Unclassified airports provide flight instruction.

Figure 3.17. Percent of Airports with Flight Training



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of Airports with Aging Facilities (Terminal Buildings, Hangars, etc.) as Defined by the FAA

Understanding the general age of key airport infrastructure is important for short- and long-term planning purposes, as it helps to inform funding decisions related to timing of repair, replacement, and expansion projects. Many facilities at airports represent a significant capital investment; therefore, understanding expected life of these facilities is critical for proper planning, design, and maintenance. The FAA defines useful life for a range of aviation facilities in the FAA's Airport Improvement Program (AIP) Handbook. **Table 3.10** presents age thresholds for each facility category as documented in the FAA's AIP Handbook. It is important to note that that for the purpose of the 2020 IASP "on-airport buildings" include terminals and other buildings but excludes hangars. This is a departure from the FAA AIP Handbook which does include hangars as a part of "on-airport buildings." The 2020 IASP evaluates hangars separately to gain a clearer understanding of the age of these facilities so that recommendations can be made specific to the age of hangars, distinct from other on-airport buildings. Airports are considered meeting the PI if they reported that 100 percent of their facilities are within the aging facility threshold as defined by the FAA.

Table 3.10. FAA Aging Facility Thresholds Definitions

Facility Category	Aging Facility Thresholds per FAA Definitions
New/Fully Reconstructed Airside Pavement	Less than 20 Years Old
Rehabilitated Airside Pavement	Less than 10 Years Old
Hangars	Less than 20 Years Old
On-airport Buildings	Less than 40 Years Old
NAVAIDs and Weather Reporting Equipment	Less than 15 Years Old
Loading Bridges	Less than 20 Years Old

Source: AIP Handbook

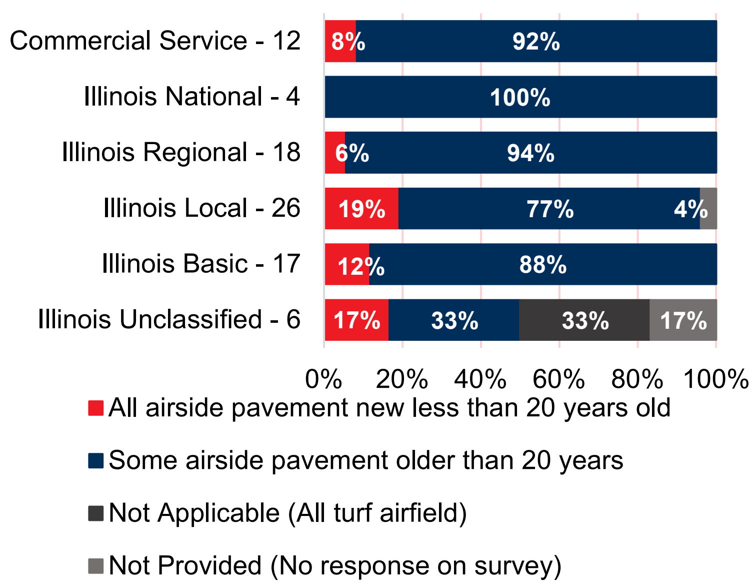
Percent of All New or Fully Reconstructed Airside Pavement Less than 20 Years Old

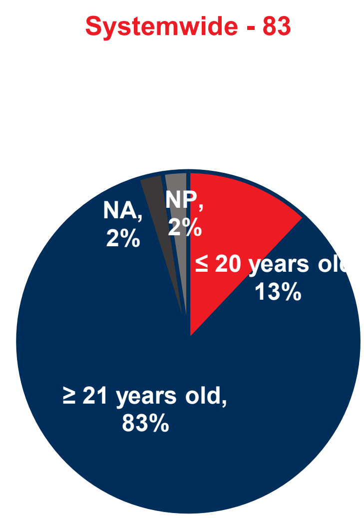
The relative age of pavement is one factor that contributes to a paved surface's existing condition. Newer pavement will have a higher Pavement Condition Index (PCI), which makes it less vulnerable to the elements and will show fewer signs of deterioration. It is important for airports to be aware of their pavements' relative age so they can make informed decisions in terms of when to invest in pavement maintenance and/or reconstruction projects.

Reconstruction projects are reserved for more deteriorated pavement than rehabilitation projects and restore the pavement to a new state. Reconstruction projects occur less frequently are more expensive by orders-of-magnitude than rehabilitation projects.

Systemwide, 13 percent of airports reported that all of their airside pavement is new or reconstructed within the last 20 years, as presented in **Figure 3.18**. Eight percent of Commercial Service, six percent of Illinois Regional, 19 percent of Illinois Local, 12 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports have all airside pavement that is new or fully reconstructed within 20 years. None of the Illinois National airports have all airside pavement that is new or reconstructed within the past 20 years. Two system airports have an all turf airfield, resulting in two percent of the system being considered "Not Applicable (N/A)." Two other system airports did not respond to this question on the IASP Inventory Form, resulting in two percent of the system being considered "Not Provided (NP)."

Figure 3.18. Percent of Airports with All Reconstructed Pavement Less Than 20 Years Old





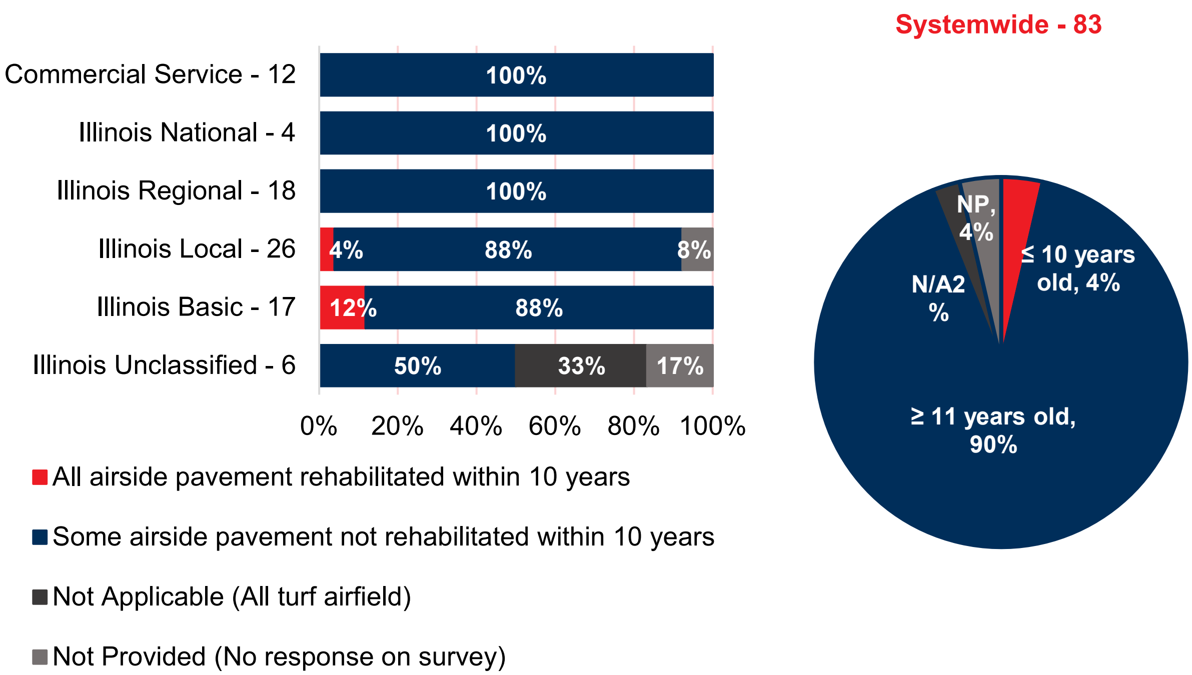
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of All Rehabilitated Airside Pavement Less Than 10 Years Old

Pavement rehabilitation projects are designed to prolong a pavement's lifespan through intermittent or routine maintenance. Considering that rehabilitation projects are not as extensive as a full pavement reconstruction project, the FAA's aging facility threshold for rehabilitation is 10 years.

Systemwide, four percent of airports reported having all of their airside pavement rehabilitated within the last 10 years, as presented in **Figure 3.19**. Four percent of Illinois Local and 12 percent of Illinois Basic have all airside pavement that has been rehabilitated within the past 10 years. None of the Commercial Service, Illinois National, Illinois Regional, or Illinois Unclassified airports reported having all of their airside pavement rehabilitated in the last 10 years. As noted previously, two system airports have an all turf airfield, resulting in two percent of the system being considered "Not Applicable (N/A)" to this analysis. Three system airports did not respond to this question on the IASP Inventory Form, accounting for two percent of the system being considered "Not Provided (NP)."

Figure 3.19. Percent of Airports with All Rehabilitated Airside Pavement Less Than 10 Years Old



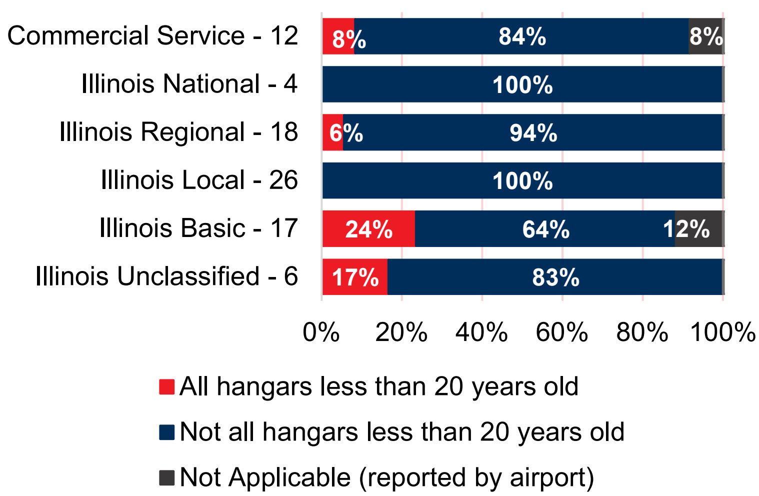
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

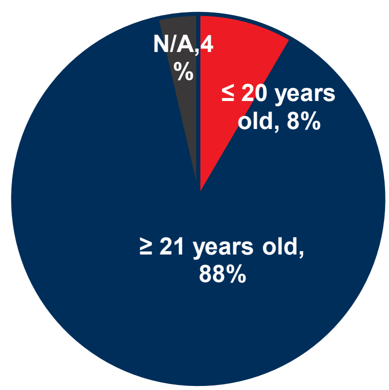
Percent of All Hangars Less Than 20 Years Old

Hangar structures provide covered storage for based and transient aircraft and contribute to revenue generation. Well-maintained and updated hangar facilities can result in increased demand, revenue generation for airports, and most importantly, safety for the pilots, passengers, and aircraft. As mentioned previously, hangars were assessed on a 20-year lifespan, as opposed to being included with all airport buildings on a 40-year lifespan.

Systemwide, eight percent of airports reported that all of their hangar structures are less than 20 years old, as presented in **Figure 3.20**. Eight percent of Commercial Service, six percent of Illinois Regional, 24 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports have all hangar structures that are less than 20 years old. None of the Illinois National or Illinois Local airports reported having all hangar buildings that are less than 20 years old. Three system airports reported this question was not applicable to them on the IASP Inventory Form, resulting in four percent of the system being considered "Not Applicable (N/A)."

Figure 3.20. Percent of Airports with All Hangars Less Than 20 Years Old





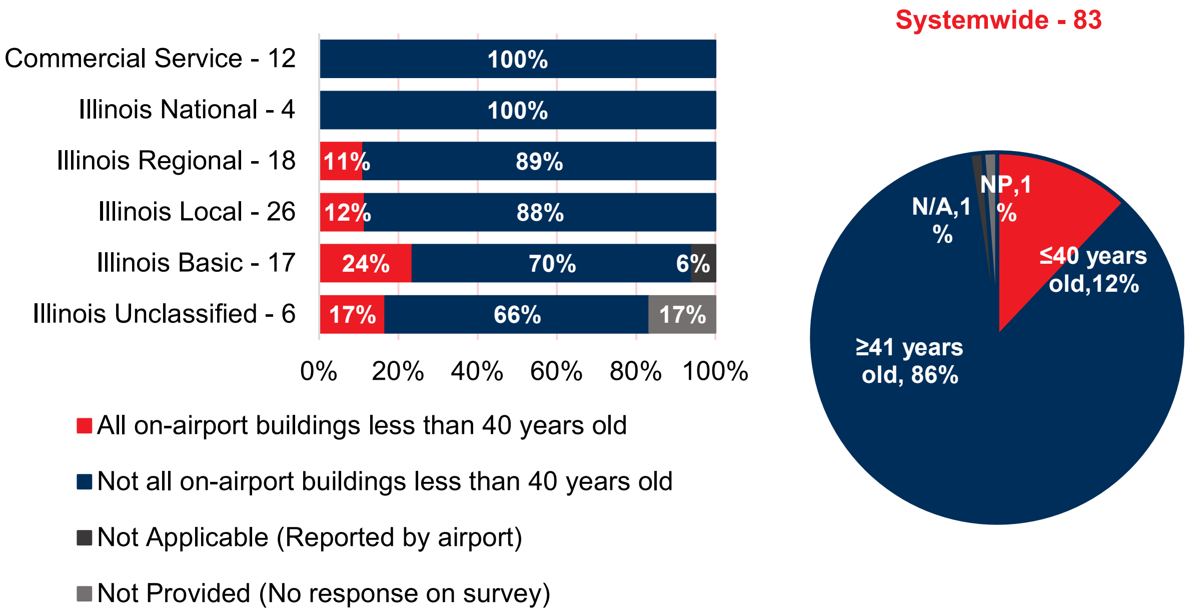
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of All On-airport Buildings Less Than 40 Years Old

Similar to hangar structures, it is important that airports are able to maintain their terminal buildings and other structures on airport property, such as operations centers and maintenance facilities. Newer buildings tend to be more efficient and modernized in terms of safety standards and aesthetics, which could directly or indirectly contribute to increased tenant and passenger demand.

Systemwide, 12 percent of airports reported that all of their on-airport buildings were built within the last 40 years, as presented in **Figure 3.21**. Eleven percent of Illinois Regional, 12 percent of Illinois Local, 24 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports have all on-airport buildings that are less than 40 years old. None of the Commercial Service or Illinois National airports reported having all of their on-airport buildings constructed within the last 40 years. One system airport reported not having on-airport building on the IASP Inventory Form, which resulted in one percent of the system being considered "Not Applicable (N/A)" to this analysis. Another airport did not respond to this question on the IASP Inventory Form, which resulted in one percent of the system being considered "Not Provided (NP)."

Figure 3.21. Percent of All On-airport Buildings Less Than 40 Years Old



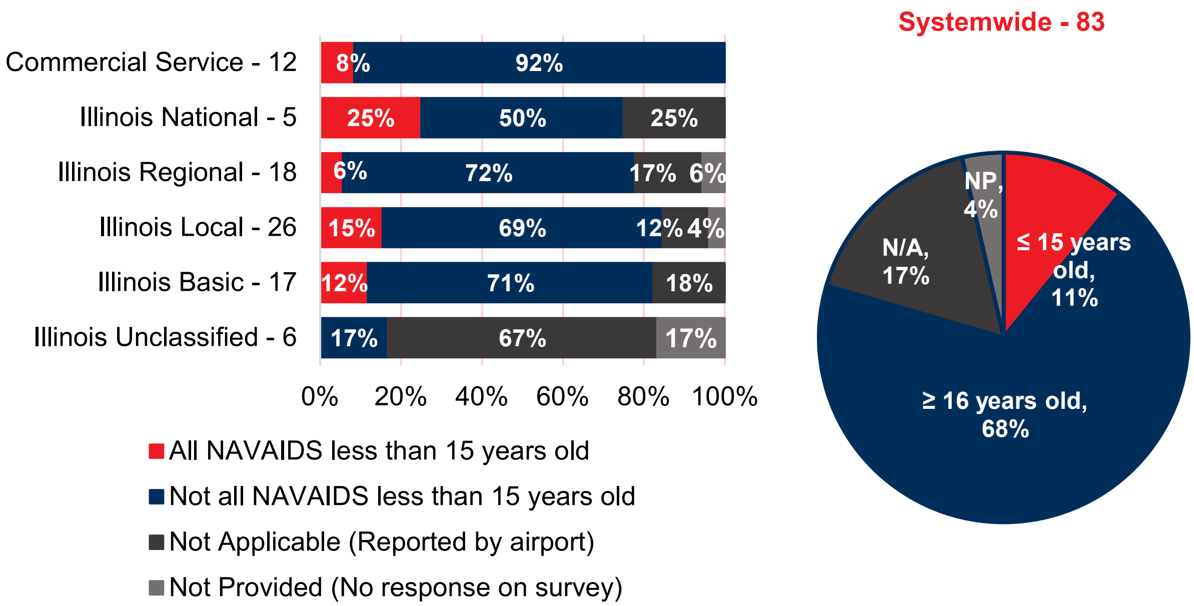
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of All NAVAIDs and Weather Reporting Equipment Less Than 15 Years Old

A NAVAID is a catchall term for a variety of electronic and visual navigational aids. NAVAIDs are an essential component of any airfield as they provide necessary guidance to pilots and are required for safe and efficient aircraft operations. With ever-changing technologies and routine wear, it is important to monitor the relative age of NAVAIDs and weather reporting equipment to ensure they are maintained.

Systemwide, eleven percent of airports reported that all of their NAVAIDs and weather reporting equipment are less than 15 years old, as presented in **Figure 3.22**. Eight percent of Commercial Service, 25 percent of Illinois National, six percent of Illinois Regional, 15 percent of Illinois Local, and 12 percent of Illinois Basic have all NAVAIDs and weather reporting equipment that is less than 15 years old. None of the Illinois Unclassified airports reported having all NAVAIDS and weather reporting equipment that is less than 15 years old. Fourteen system airports reported this question was not applicable to them on the IASP Inventory Form, resulting in 17 percent of the system being considered "Not Applicable (N/A)." Three other airports did not respond to this question on the IASP Inventory Form, which resulted in four percent of the system being considered "Not Provided (NP)."

Figure 3.22. Percent of Airports with All NAVAIDS Less Than 15 Years Old



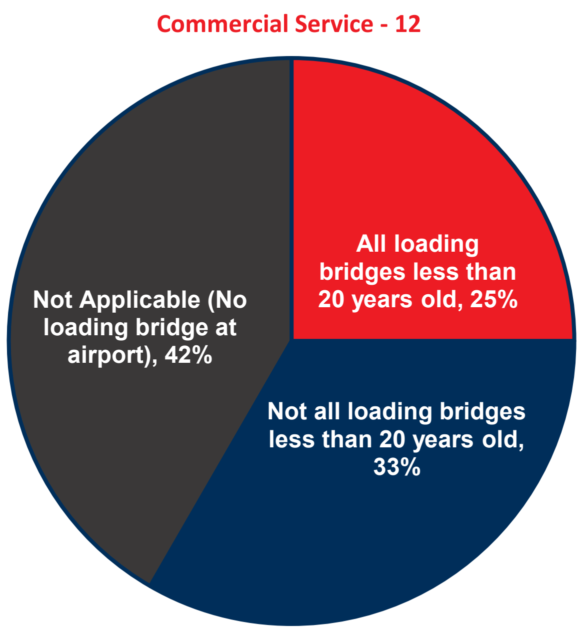
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of All Loading Bridges Less Than 20 Years Old

Loading bridges are enclosed and typically elevated passageways that connect the terminal gate to an aircraft. Loading bridges are important for efficient boarding and disembarking of an aircraft. Loading bridges are not a common airport facility across the system considering they are only used at commercial service airports, and even then, it is not a requirement to have loading bridges if airport activity levels don't warrant it. When loading bridges are used, it is important that their age is monitored to ensure that necessary repairs and replacements can be planned for.

Twenty five percent of Commercial Service airports reported that their loading bridges are less than 20 years old, as presented in **Figure 3.23**. Five Commercial Service airports do not have loading bridges and were considered "Not Applicable (N/A)" to this analysis. No other system airports were applicable to this PI as they do not have loading bridges. Systemwide, that accounts for four percent of the system meeting this PI, five percent not meeting, and the majority of the rest of the system was not applicable.

Figure 3.23. Percent of All Loading Bridges Less Than 20 Years Old



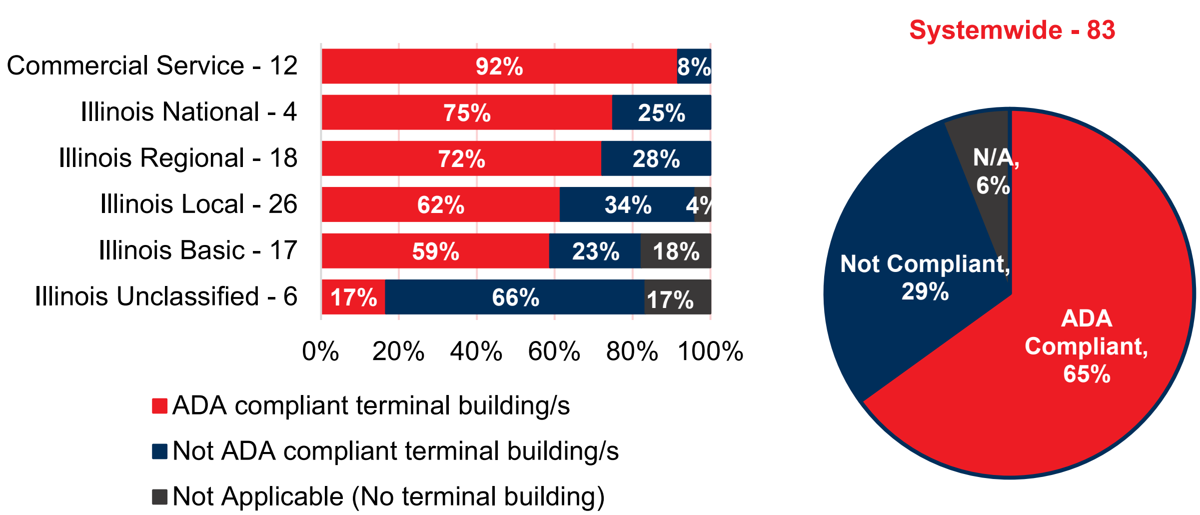
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of Airports that have Americans with Disabilities Act (ADA)-Compliant Terminal Buildings

The Americans with Disabilities Act (ADA) was established at the federal level in 1990 to ensure that Americans with disabilities would not be discriminated against. Part of the ADA made it lawfully required to have buildings designed to accommodate people with disabilities. This was accomplished in several ways, including the requirement of handicap accessible ramps to enter buildings, automatic doors, and requiring systems like elevators to be installed for multi-level buildings. Airports are included in the list of facilities that must adhere to ADA guidelines.

Airports were asked to report if their terminal buildings were ADA-compliant. Systemwide, 65 percent of airports reported having ADA-compliant terminal buildings. As presented in **Figure 3.24**, 92 percent of Commercial Service, 75 percent of Illinois National, 72 percent of Illinois Regional, 62 percent of Illinois Local, 59 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports have ADA-accessible terminal buildings. Five airports do not have a terminal building, resulting in six percent of the system being considered "Not Applicable (N/A)."

Figure 3.24. Percent of Airports that have ADA-Compliant Terminal Buildings



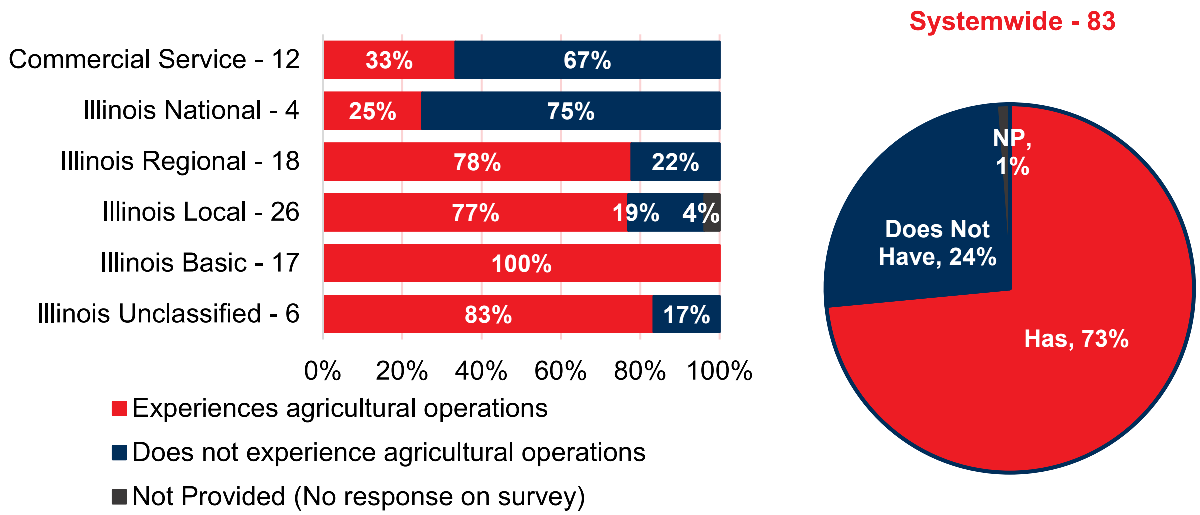
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of Airports that Experience Aerial Agricultural Application Operations

Aerial agricultural operations are performed by pilots who specialize in spraying crop fields with pesticides, fertilizers, or seeds that are dispensed from their aircraft. Aerial agricultural application is seen as preferable to traditional surface-based equipment as it protects the ground from damage caused by the surface-based equipment. Aerial agricultural spraying helps farmers maximize crop yields, which is a tremendous benefit for the surrounding community. Airports primarily benefit from the presence of agricultural spraying operators by way of fuel sales and hangar rentals.

Airports were asked if their airport experiences aerial agricultural application operations. Systemwide, 73 percent of airports reported experiencing aerial agricultural application operations, as presented in **Figure 3.25**. Thirty-three percent of Commercial Service, 25 percent of Illinois National, 78 percent of Illinois Regional, 77 percent of Illinois Local, all Illinois Basic, and 83 percent of Illinois Unclassified airports experience aerial agricultural operations. One airport did not respond to this question on the IASP Inventory Form, resulting in one percent of the system being considered “Not Provided (NP).”

Figure 3.25. Percent of Airports that Experience Aerial Agricultural Operations



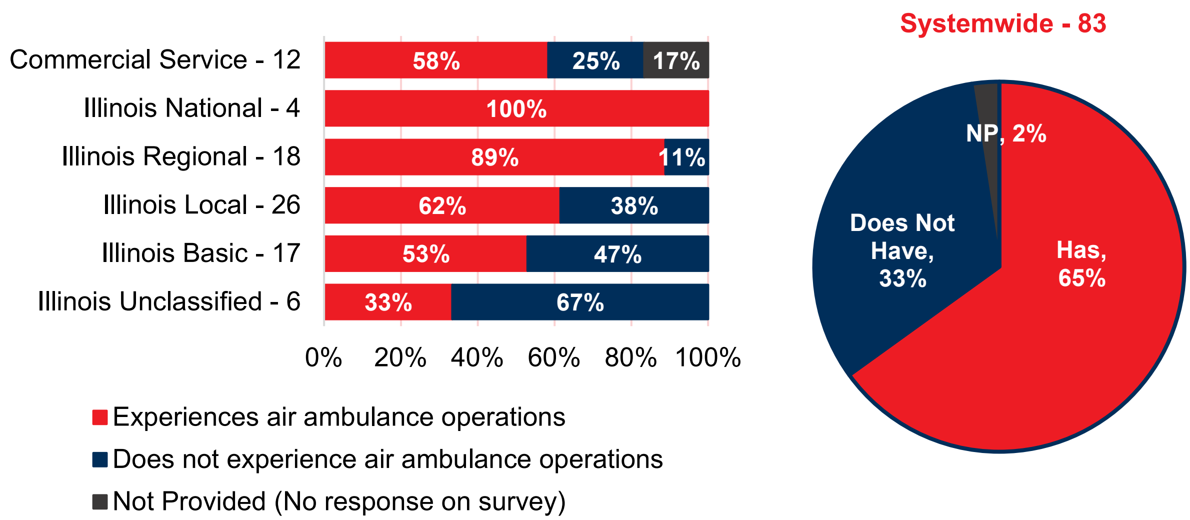
Sources: IASP Inventory Form 2020; Kimley-Horn, 2020

Percent of Airports that Experience Air Ambulance Operations

Air ambulance operators provide lifesaving emergency flights to medical facilities for people in need of critical help. This is particularly important when a ground ambulance is too slow or if the person in need is unreachable by ground ambulance.

Airports were asked if their airport experiences air ambulance operations. Systemwide, 65 percent of airports reported experiencing air ambulance operations, as presented in **Figure 3.26**. Fifty-eight percent of Commercial Service, all Illinois National, 89 percent of Illinois Regional, 62 percent of Illinois Local, 53 percent of Illinois Basic, and 33 percent of Illinois Unclassified airports experience air ambulance operations. Two airports did not respond to this question on the IASP Inventory Form, resulting in two percent of the system being considered "Not Provided (NP)."

Figure 3.26. Percent of Airports that Experience Air Ambulance Operations



Sources: IASP Inventory Form, 2020: Kimley-Horn, 2020

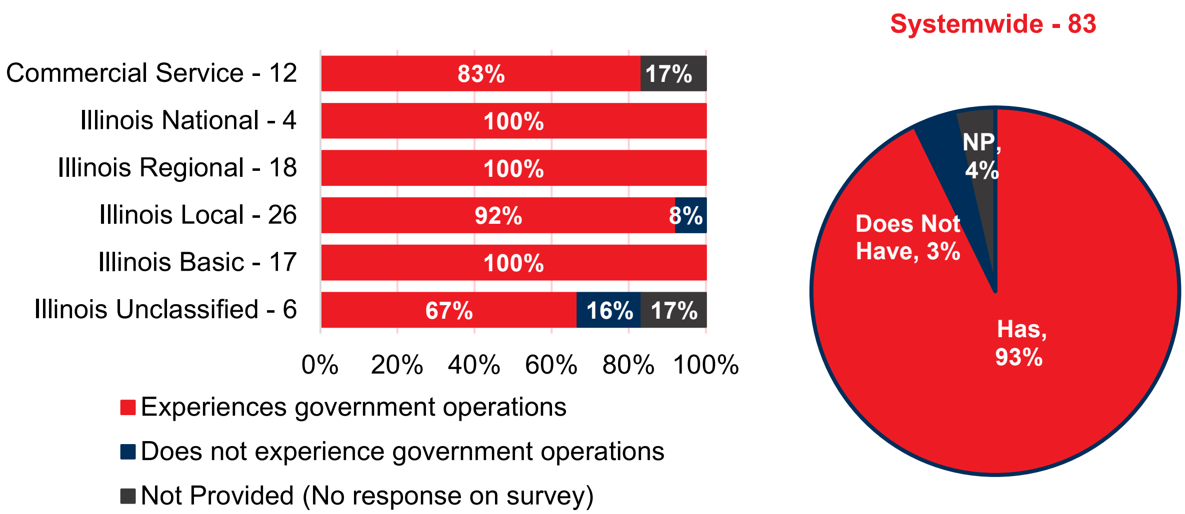
Percent of Airports that Experience Government or Law Enforcement Operations

Airports host a wide array of government operations that benefit and protect the community. These operations benefit the airport through fuel purchases and other revenue generating activities, as well as life safety and social benefits. The activities that apply to this PI are:

- Police/Law Enforcement
- Prisoner Transport
- Aerial/Wildland Firefighting
- Military Exercises/Training
- Environmental Patrol

Airports were asked if their airports experience any of the government or law enforcement operations listed. Systemwide, 93 percent of airports reported experiencing at least one of the government services or law enforcement operations listed, as presented in **Figure 3.27**. Eighty-three percent of Commercial Service, all Illinois National, all Illinois Regional, 92 percent of Illinois Local, all Illinois Basic, and 67 percent of Illinois Unclassified airports experience government or law enforcement operations. Three airports did not respond to this question on the IASP Inventory Form, resulting in four percent of the system being considered "Not Provided (NP)."

Figure 3.27. Percent of Airports Experiencing Government or Law Enforcement Operations



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

3.4.2. Goal 2: Livability

The IASP Livability Goal seeks to enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment. The PMs and PIs associated with this goal evaluate the systems' ability to support future aviation development by evaluating existing land use controls and other land use compatibility factors. Land use compatibility factors include having complete control of runway protection zones (RPZs) and mitigating on-airport hazards that can stem from nearby wildlife habitats, or storm water run-off. Moreover, this goal evaluates the system's effort in preparing for the future by being integrated into local and regional long-range planning efforts and supporting solar initiatives. The facilities, services, and airport activities associated with this goal help to inform how the system is currently enhancing quality of life by evaluating land use controls and planning, and environmental factors, such as drainage analyses, wildlife management, and advancing solar initiatives,

3.4.2.1. Performance Measures and Future Performance Targets

This section presents the findings of the PMs associated with Goal 2: Livability as well as establishes future performance targets to determine gaps and/or deficiencies in facilities or services at IASP airports. The PMs for this goal are:

- Percent of airports that have adopted appropriate land use controls
- Percent of airports that have fully controlled RPZs (fee simple or avigation easement)
- Percent of airports with an adopted wildlife management plan
- Percent of airports with up-to-date drainage analysis and storm water pollution plans

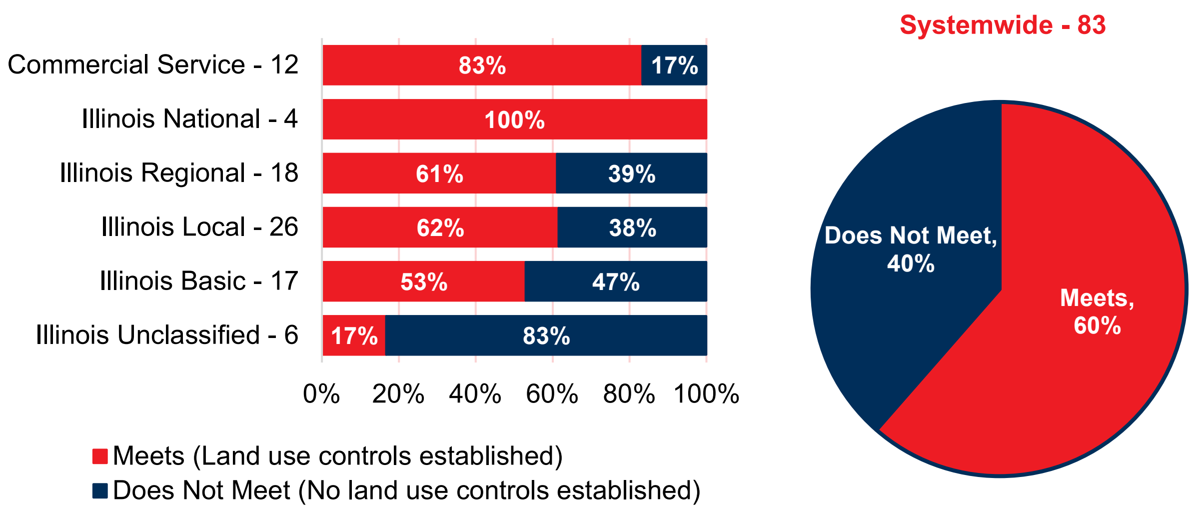
Percent of Airports that have Adopted Appropriate Land Use Controls

One of the ways an airport can achieve and maintain a safe airport environment is to work with local planning authorities to adopt appropriate zoning and land use controls. Zoning can support airport compatible land uses by restricting certain types of development, avoiding future obstructions, and identifying where existing obstructions can be mitigated. Land use controls identify and control certain land uses that are deemed to be incompatible around airports, such as schools, dense housing developments, and event centers. Land use decisions and development should be evaluated on a case-by-case basis.

Existing Conditions

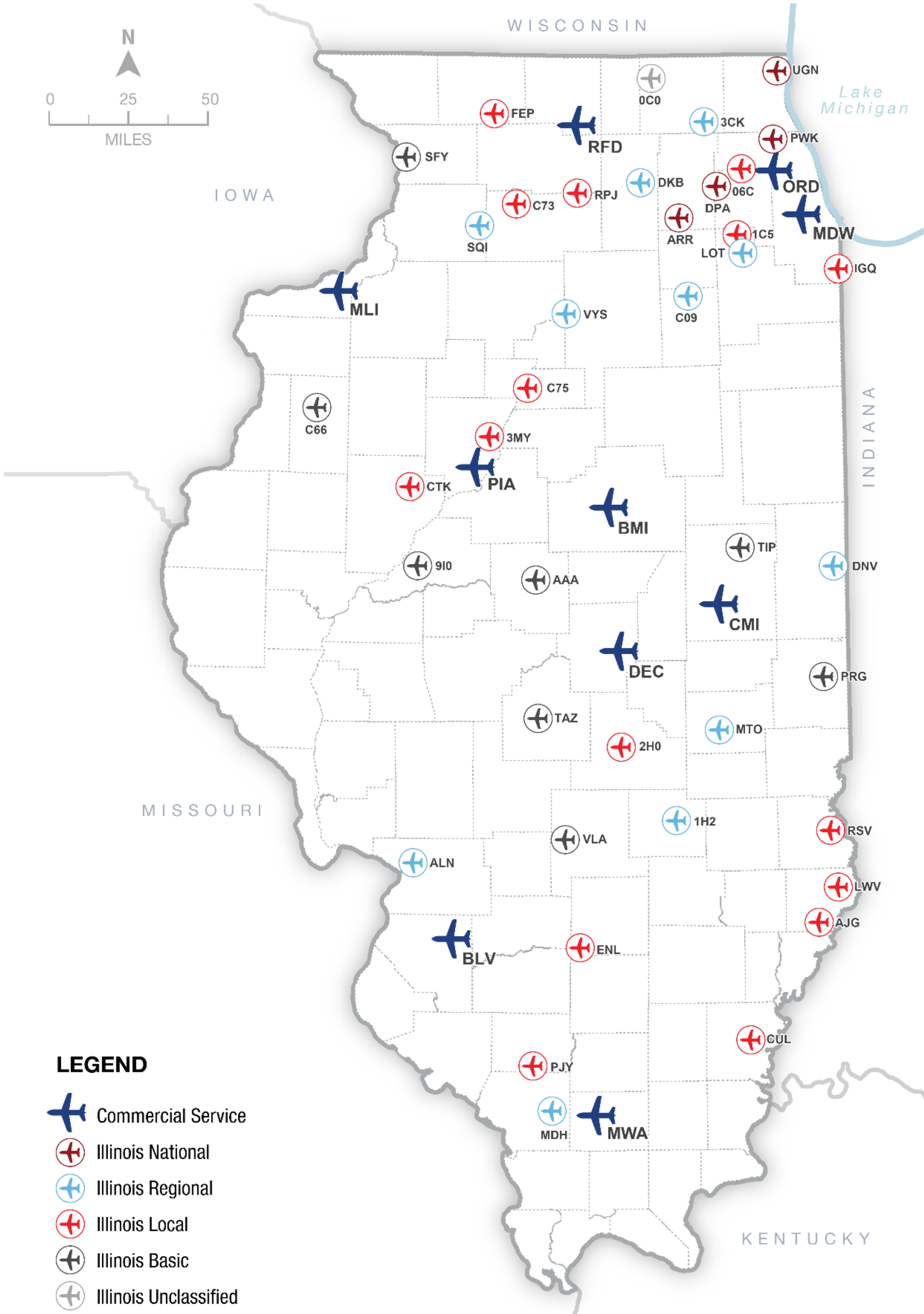
Airports were asked if their airport has adopted appropriate land use controls. Systemwide, 60 percent of airports meet the land use controls PM because they have adopted appropriate land use controls, as presented in **Figure 3.28**. Eighty-three percent of Commercial Service, all Illinois National, 61 percent of Illinois Regional, 62 percent of Illinois Local, 47 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports meet this PM. **Figure 3.29** depicts the IASP airports with land use controls.

Figure 3.28. Percent of Airports with Land Use Controls



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.29. Airports with Land Use Controls



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.11,** the future performance target for this PM is 100 percent for all airports. The airports that have not met this PM should work with their local zoning authorities to adopt appropriate land use controls. FAA and other resources such as the ACRP Report 27: *Enhancing Airport Land Use Compatibility* and FAA AC 150/5020-1, *Noise Control and Compatibility Planning for Airports* are available for reference for airports and local zoning authorities as they develop and adopt land use and other zoning related regulations to address airport and community compatibility. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.11. Percent of Airports by Classification That Have Adopted Appropriate Land Use Controls – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	83%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	61%	100%
Illinois Local - 26	62%	100%
Illinois Basic - 17	53%	100%
Illinois Unclassified - 6	17%	100%
Systemwide - 83	**61%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Airports that have Fully Controlled RPZs (Fee Simple or Avigation Easement)

A Runway Protection Zone (RPZ) is a trapezoidal area located at each runway end that is designed to protect both people and property in the event of an aircraft overrun or undershoot when departing or landing at an airport. All FAA obligated airports are required to have a sufficient interest in the land encompassing the RPZ to ensure that obstructions and incompatible land uses are mitigated and prevented.

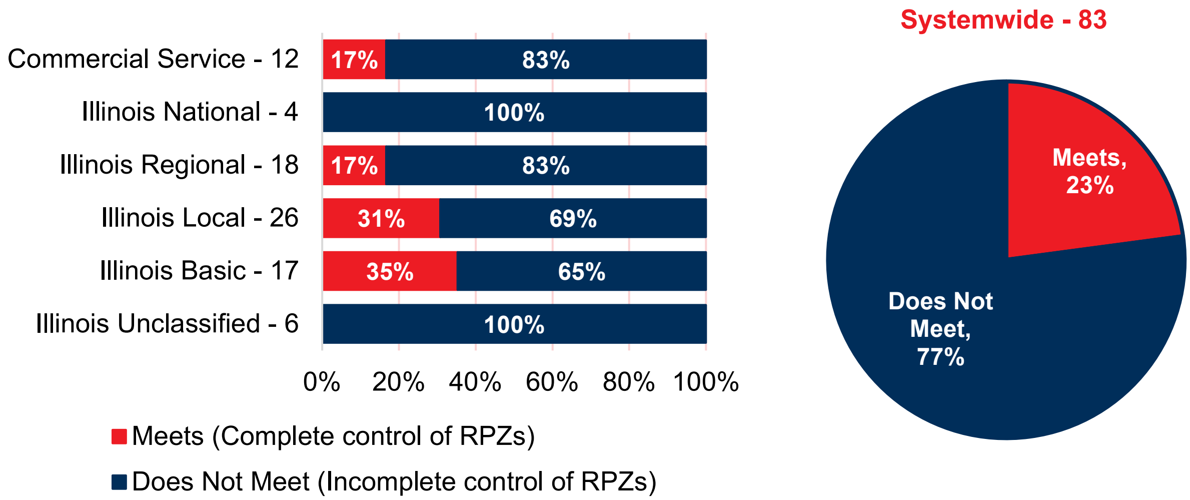
Airports can control this land through fee simple ownership and/or avigation easements. Fee simple ownership is preferred, however not always possible if the landowner is not interested in selling, or the land is controlled by a government agency with right-of-way privileges, or using it for other official local, state, or federal uses. Avigation easements are official agreements between an airport sponsor and the property owner, which gives the airport flyover rights, and in some instances, the right to remove obstacles within the RPZs. Obstacle removal within an avigation easement can be limited due to ownership of the land and if essential non-aviation infrastructure is present within the RPZ. The FAA recommends that an airport achieve complete control of their RPZs, through fee simple and/or avigation easements.

Airports were asked to indicate their level of RPZ control (in percentages) by runway end. There were three possible responses: Percent controlled by fee simple, avigation easement, or the percent of RPZ uncontrolled. To achieve full control of the RPZ, the airport would have to fully own the land within the RPZ, have full avigation easement, or some combination of the two. ALPs were reviewed with the airports during these discussions to assist in the visual assessment.

Existing Conditions

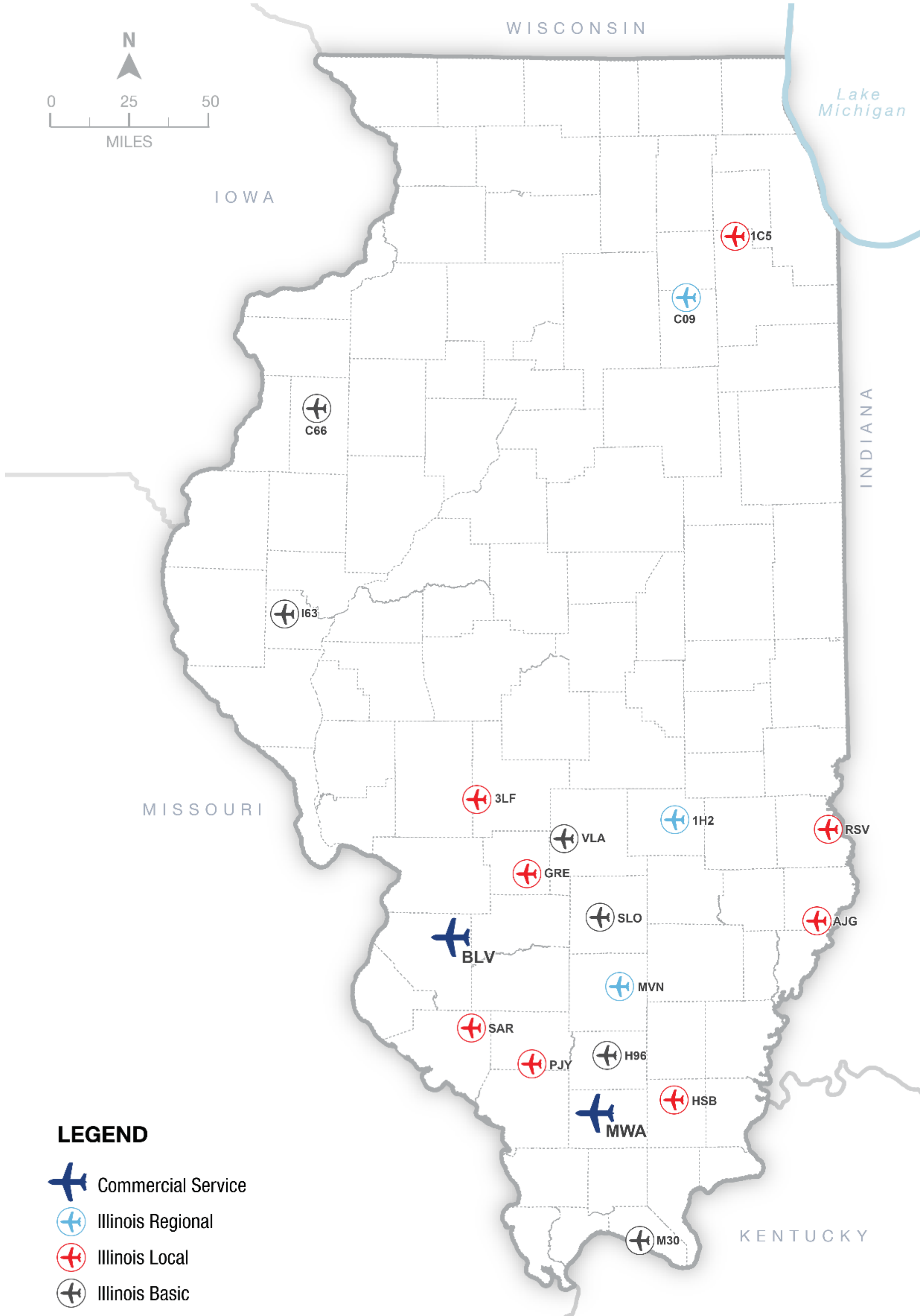
Systemwide, 23 percent of airports reported having full control of their RPZs through ownership or avigation easement as presented in **Figure 3.30**. Seventeen percent of Commercial Service, 17 percent of Illinois Regional, 31 percent of Illinois Local, and 35 percent of Illinois Basic, meet this PM. None of the Illinois National or Illinois Unclassified airports have complete control of their RPZs. **Figure 3.31** depicts IASP airports that have fully controlled RPZs.

Figure 3.30. Percent of Airports that have Fully Controlled RPZs



Sources: ALPs/MPs, IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.31. Airports that have Fully Controlled RPZs



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.12**, the future performance target for this PM is set at 100 percent for all airports. It should be noted that the RPZ PM analysis was conducted for all runways at all IASP airports. In order to meet the performance target, individual airports have to maintain fully controlled RPZs on both ends of all of their runways. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.12. Percent of Airports by Classification That Have Fully Controlled RPZs (Fee Simple or Avigation Easement) – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	17%	100%
Illinois National - 4	0%	100%
Illinois Regional - 18	17%	100%
Illinois Local - 26	23%	100%
Illinois Basic - 17	29%	100%
Illinois Unclassified - 6	0%	100%
Systemwide - 83	**19%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

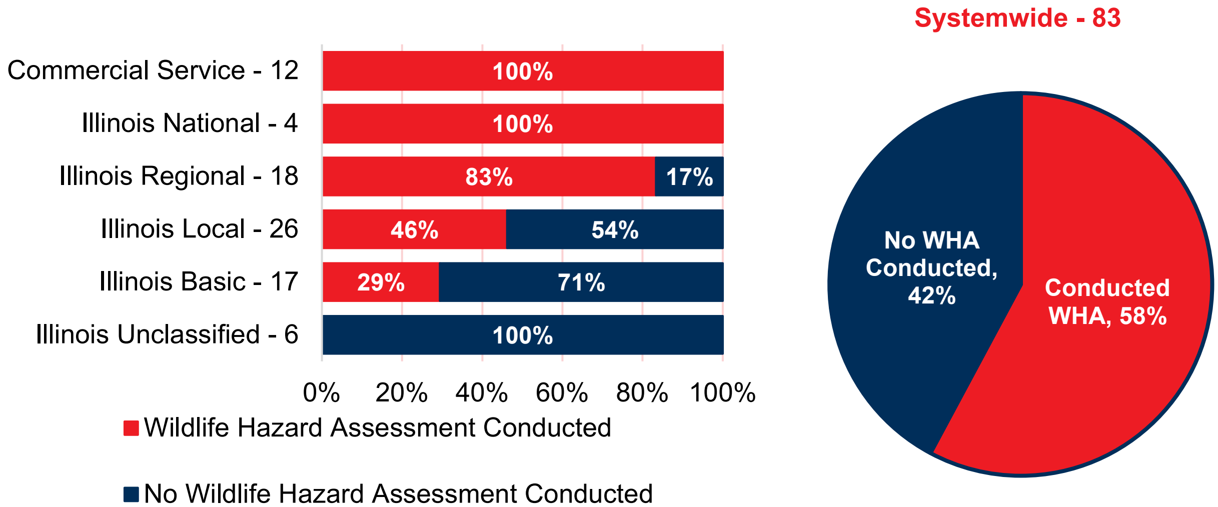
Percent of Airports with an Adopted Wildlife Hazard Management Plan

Considering the dangers that wildlife can pose it is necessary to mitigate the presence of wildlife at an airport. The first step toward mitigating the issue is to perform a Wildlife Hazard Assessment (WHA), which is a study that inspects for the presence of wildlife in the airport environment and identifies any wildlife hazards that may have developed specific to an airport.

Existing Conditions

Airports were asked if their airport has conducted a WHA. Systemwide, 58 percent of airports have conducted a WHA, as presented in **Figure 3.32**. All Commercial Service, all National Illinois, 83 percent of Illinois Regional, 46 percent of Illinois Local, and 29 percent of Illinois Basic airports have taken the initial step toward identifying if any wildlife hazards that impact the airport. None of the Illinois Unclassified Airports have conducted a WHA. It is important to note that non-Part 139 airports are not required to conduct a WHA, however, that does not mean it is not important for all system airports to be aware of potential hazards posed by nearby wildlife.

Figure 3.32. Percent of Airports that have Conducted a Wildlife Hazard Assessment

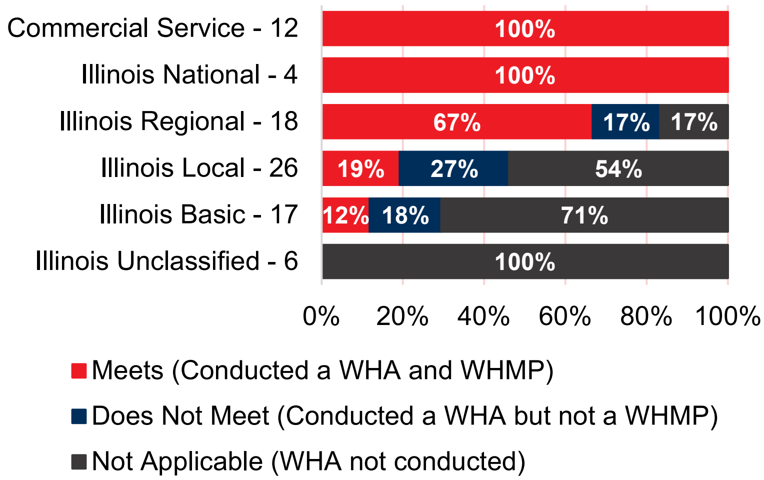


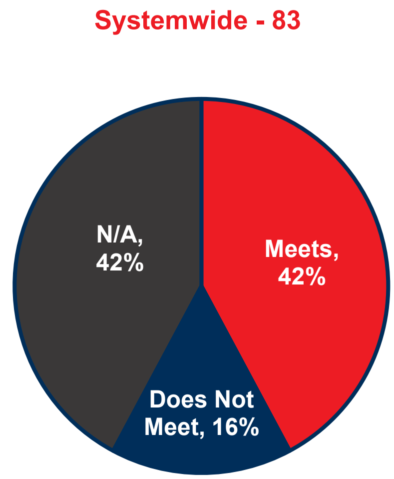
Source: IASP Inventory Form, 2020; Kimley-Horn, 2020

Once a WHA is completed, the results are sent to the FAA, and the FAA determines if a Wildlife Hazard Management Plan (WHMP) is necessary. A WHMP is developed to minimize the risks associated with wildlife habitats and activity being present on and around the airport. The WHMP identifies specific measures the airport will take to mitigate the risk of wildlife and aircraft incursions on or near the airport by identifying hazardous wildlife and their attractants, suitable proactive and reactive management techniques, and necessary resources and supplies to successfully implement a WHMP program. Part 139 airports are heavily encouraged by the FAA to complete a WHA followed by a WHMP, as appropriate, and to date, every Part 139 airport nationwide has completed or initiated a WHA.

Airports were asked if their airport has adopted an WHMP. Systemwide, 42 percent of airports meet the WHMP PM because they conducted a WHA and followed up that study with a WHMP, as presented in **Figure 3.33**. All Commercial Service, all Illinois National, 67 percent of Illinois Regional, 19 percent of Illinois Local, and 12 percent of Illinois Basic Airports completed a WHMP based on the results of their WHA. It is important to note that 16 percent of airports are not meeting this PM because they did not report conducting a WHMP, however, these airports may have not conducted this plan because the results of their WHA deemed it unnecessary due to no findings of impactful wildlife presence. Forty-two percent of the system are considered “Not Applicable (N/A)” in **Figure 3.33** because they have not conducted a WHA and therefore would not be prompted to conduct a WHMP. **Figure 3.34** depicts the IASP airports with an adopted wildlife management plan.

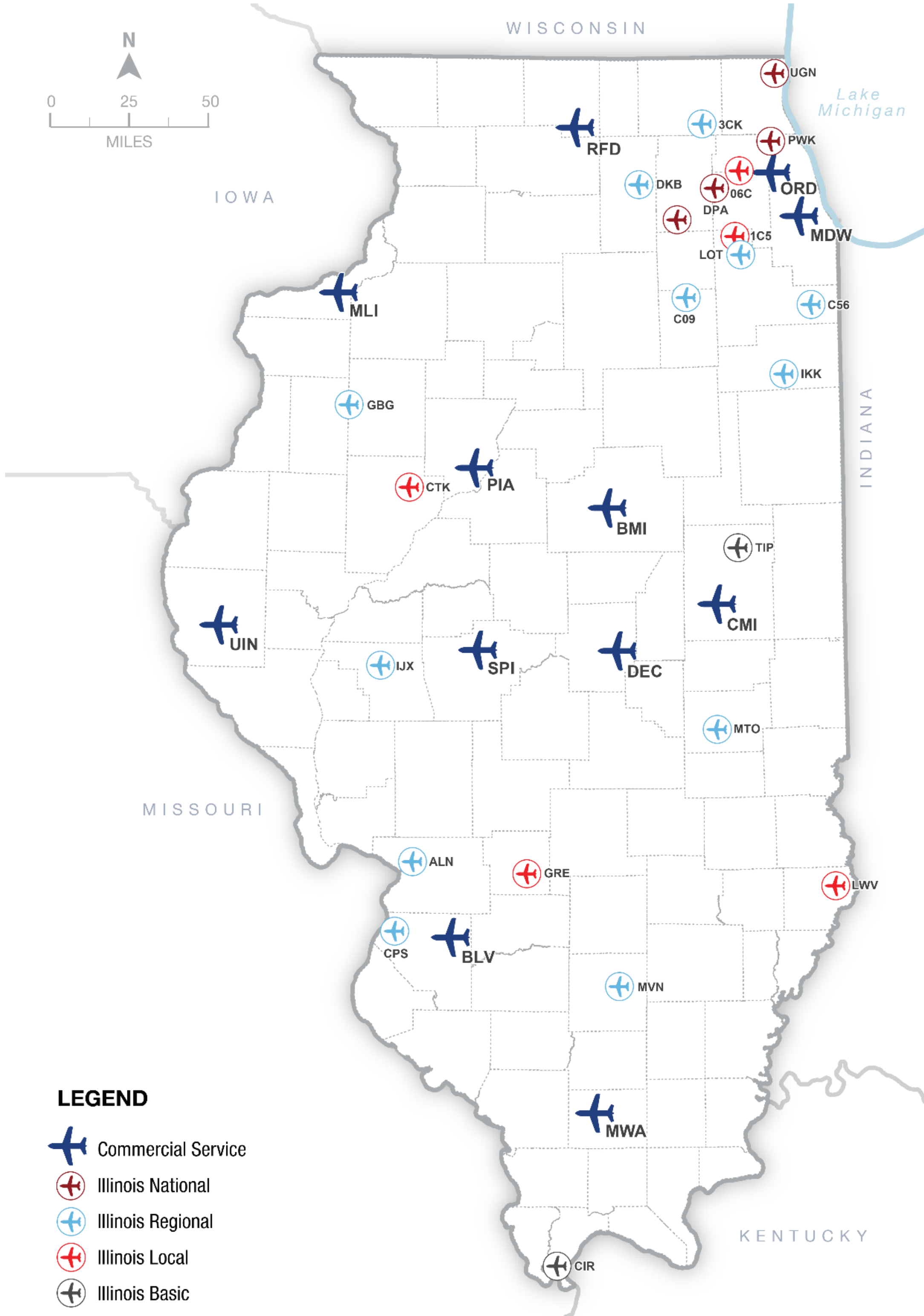
Figure 3.33. Percent of Airports with an Adopted Wildlife Hazard Management Plan





Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.34. Airports with an Adopted Wildlife Hazard Management Plan



Sources: ArcGIS, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.13**, the future performance target for this PM is set at 100 percent for Commercial Service and Illinois National airports and "as needed" for all other airports. A target for WHMPs was set for only Commercial Service and Illinois National airports due to their propensity to experience scheduled air carrier and/or air charter activities.

As shown above, all Commercial Service and Illinois National airports currently adopt and maintain a WHMP and therefore, already meet their future performance target. IDOT should continue to work with Commercial Service and Illinois National airports to keep their WHMPs up to date.

Table 3.13. Percent of Airports by Classification with an Adopted Wildlife Hazard Management Plan – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service – 12	100%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	67%	As needed
Illinois Local – 26	19%	As needed
Illinois Basic – 17	12%	As needed
Illinois Unclassified - 6	0%	As needed
Systemwide – 83	**42%**	**As needed**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Airports with Up-to-Date Drainage Analysis and Storm Water Pollution Plans

A Storm Water Pollution Prevention Plan (SWPPP) is crucial to minimizing an airport's long-term environmental impact. A SWPPP identifies the mitigation measures to be used by the airport to minimize the amount of pollution runoff, sediment runoff, and erosion that is allowed to leave the airport environment. Due to the large number of impervious surfaces that lead to water pooling instead of reabsorbing into the ground, SWPPPs are particularly important to airports. Drainage analyses are another key planning document that airports can implement to optimize on-airport activities. Conducting a drainage analysis supports safer airport operations during a storm event and determines how effective the current drainage system is in rapidly removing storm water from airfield pavement. Stagnant storm water on an airfield can pose risks to safety, contributes to pavement deterioration, and can be harmful to the environment. Having an up-to-date drainage analysis validates that the existing drainage system is working as intended or can identify where improvements need to occur to ensure proper storm water drainage at an airport.

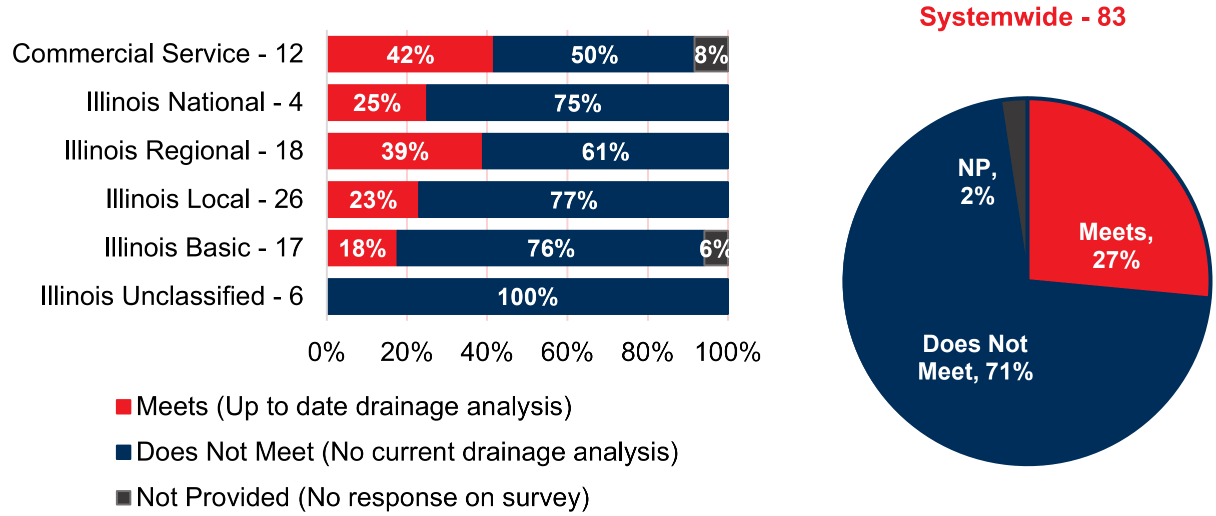
Airports were asked if the airport has completed both a drainage analysis and a SWPPP, and what year both plans were developed or updated. SWPPP's must be updated annually, while the cut off for an up-to-date drainage analysis was 2010. Ten years is an industry standard for drainage analysis updates.

Existing Conditions (Drainage Analysis)

Systemwide, 27 percent of airports meet the drainage analysis portion of this PM because they reported having an up-to-date drainage analysis, as presented in **Figure 3.35**. Forty-two percent of Commercial Service, 25 percent of Illinois National, 39 percent of Illinois Regional, 23 percent of Illinois Local, and 18 percent of Illinois Basic airports meet the drainage analysis portion of this PM. None of the Unclassified airports have an up-to-date drainage analysis. Two airports did not respond to this question on the IASP

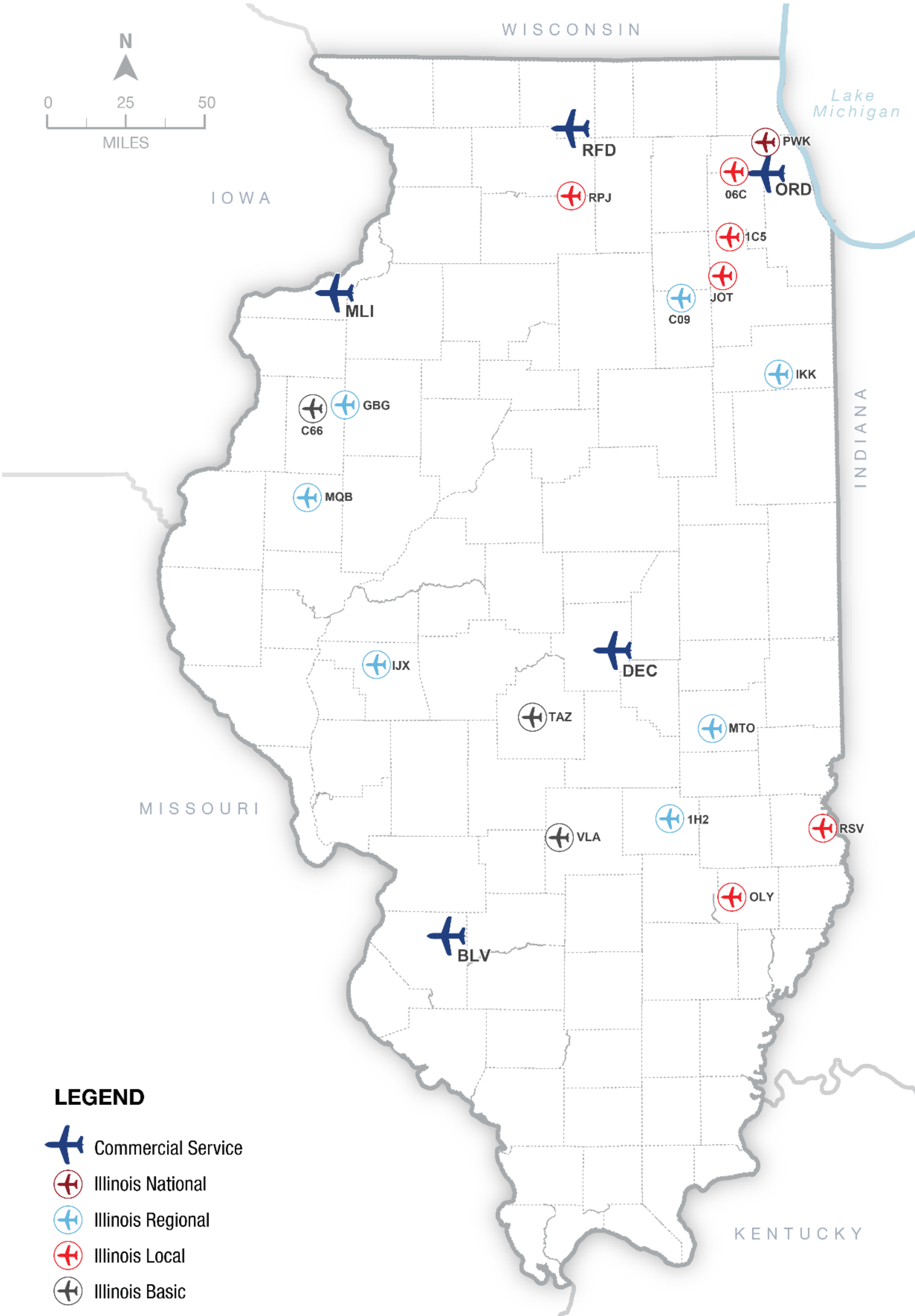
Inventory Form, resulting in two percent of the system being considered "Not Provided (NP)." **Figure 3.36** depicts the IASP airports with an up-to-date drainage analysis.

Figure 3.35. Percent of Airports with Up-to-Date Drainage Analysis



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.36. Airports with Up-to-Date Drainage Analysis



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets (Drainage Analysis)

As shown in **Table 3.14**, the future performance target for this PM is set at 100 percent for all airports as proper airfield drainage is critical to maintain operational safety at airports. Systemwide, 37 percent of airports maintain an up-to-date drainage analysis, meaning approximately two-thirds of IASP airports need a drainage analysis. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.14. Percent of Airports by Classification with an Up-to-Date Drainage Analysis – Future Performance Targets

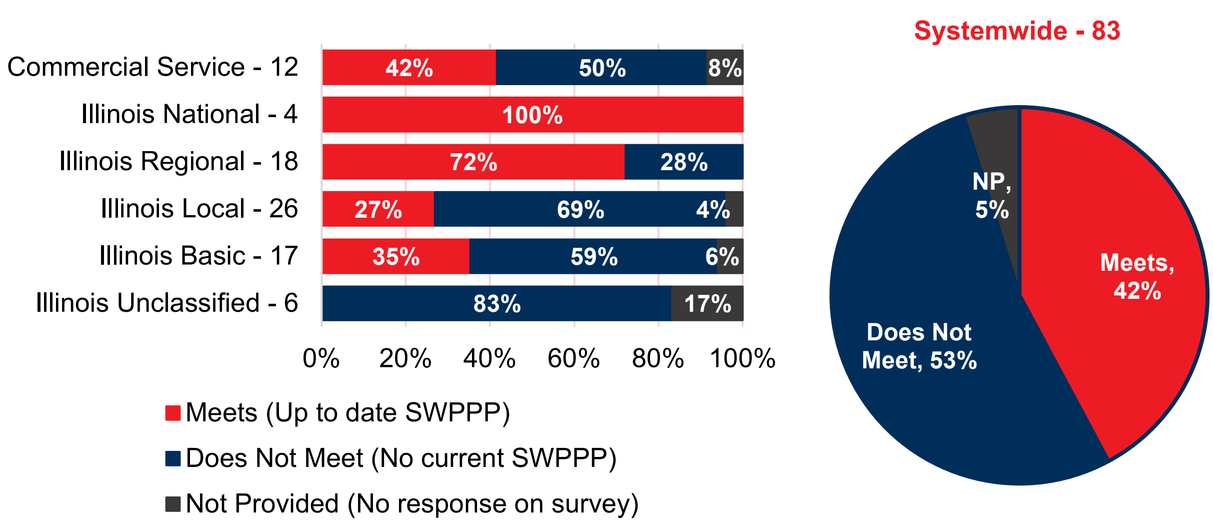
Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	50%	100%
Illinois National - 4	75%	100%
Illinois Regional - 18	56%	100%
Illinois Local - 26	31%	100%
Illinois Basic - 17	24%	100%
Illinois Unclassified - 6	0%	100%
Systemwide - 83	**37%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Existing Conditions (SWPPP)

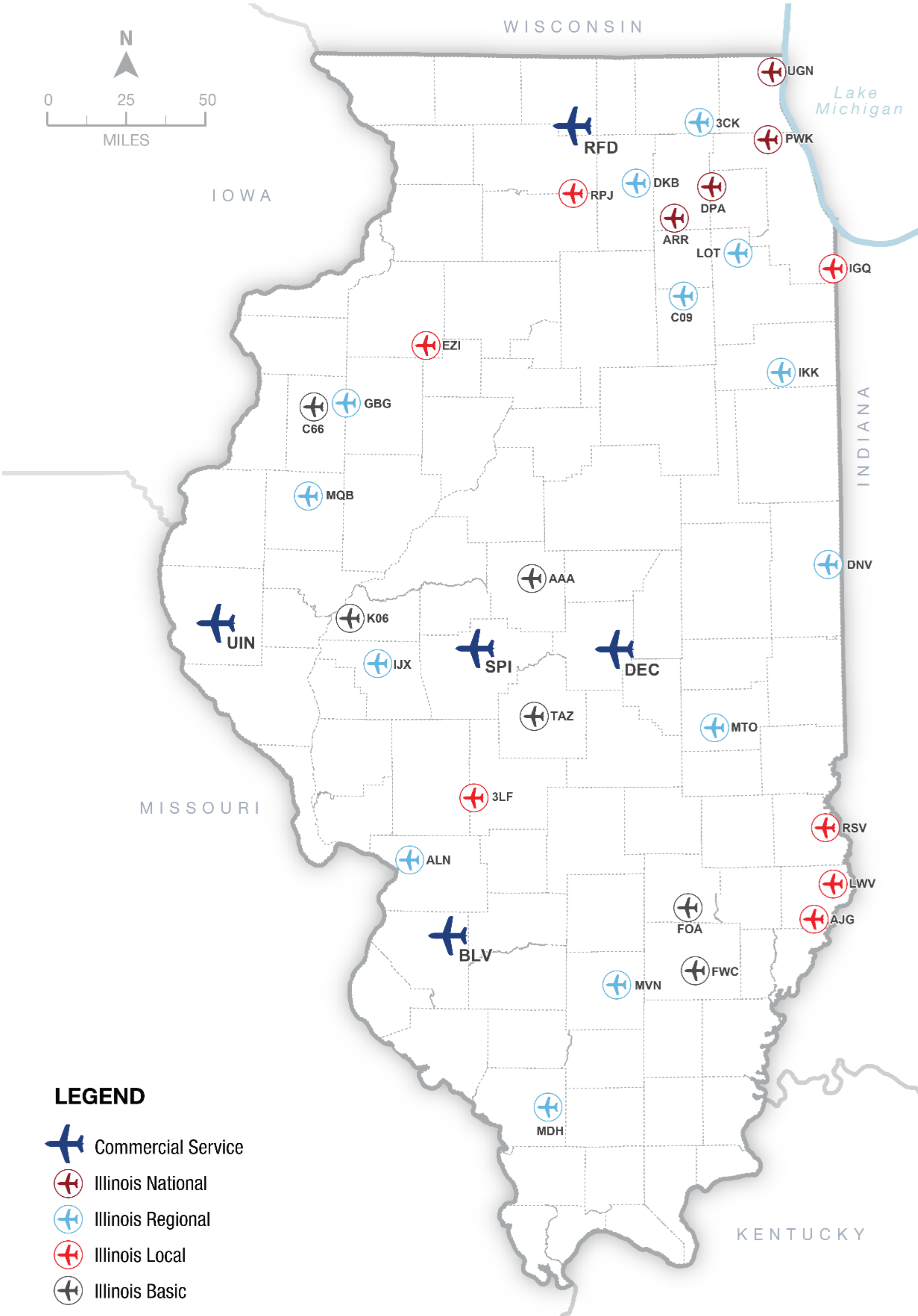
Systemwide, 42 percent of airports meet the SWPPP portion of this PM because they reported having an up-to-date SWPPP, as presented in **Figure 3.37**. Forty-two percent of Commercial Service, All Illinois National, 72 percent of Illinois Regional, 27 percent of Illinois Local, and 35 percent of Illinois Basic airports meet this PM. None of the Unclassified airports have an up-to-date SWPPP. Four airports did not respond to this question on the IASP Inventory Form, resulting in five percent of the system being considered “Not Provided (NP).” **Figure 3.38** depicts the IASP airports with an up-to-date SWPPP.

Figure 3.37. Percent of Airports with Up-to-Date SWPPP



Sources: IASP Inventory Form 2020, Kimley-Horn, 2020

Figure 3.38. Airports with Up-to-Date SWPPP



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets (SWPPP)

As shown in **Table 3.15**, the future performance target for this PM is set at 100 percent for all airports given their requirement to be completed annually by the Environmental Protection Agency (EPA). IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.15. Percent of Airports by Classification with Storm Water Pollution Prevention Plans – Future Performance Targets

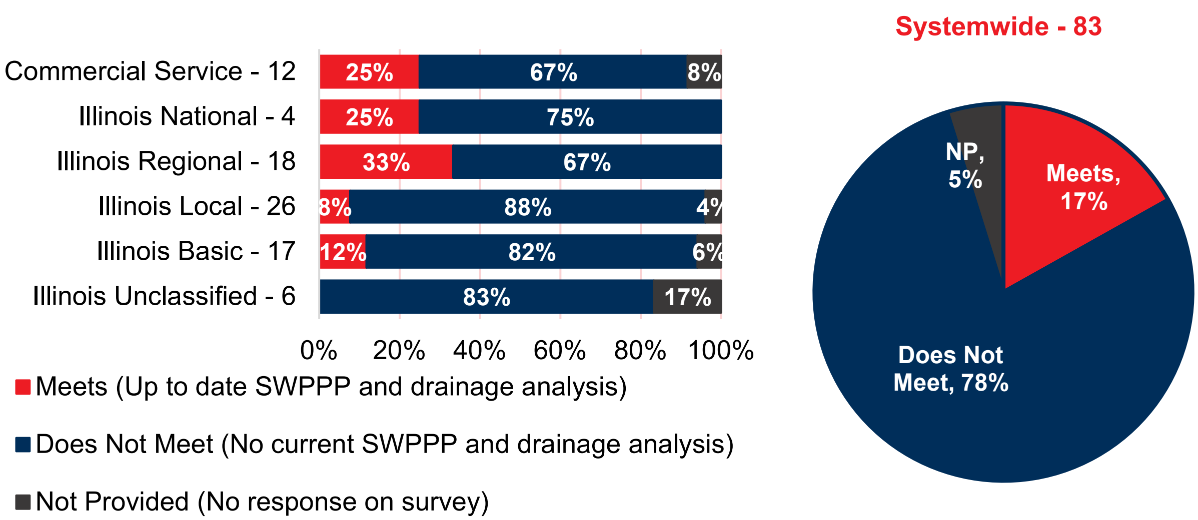
Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	92%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	94%	100%
Illinois Local - 26	42%	100%
Illinois Basic - 17	59%	100%
Illinois Unclassified - 6	0%	100%
Systemwide - 83	**64%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Existing Conditions (Drainage Analysis and SWPPP)

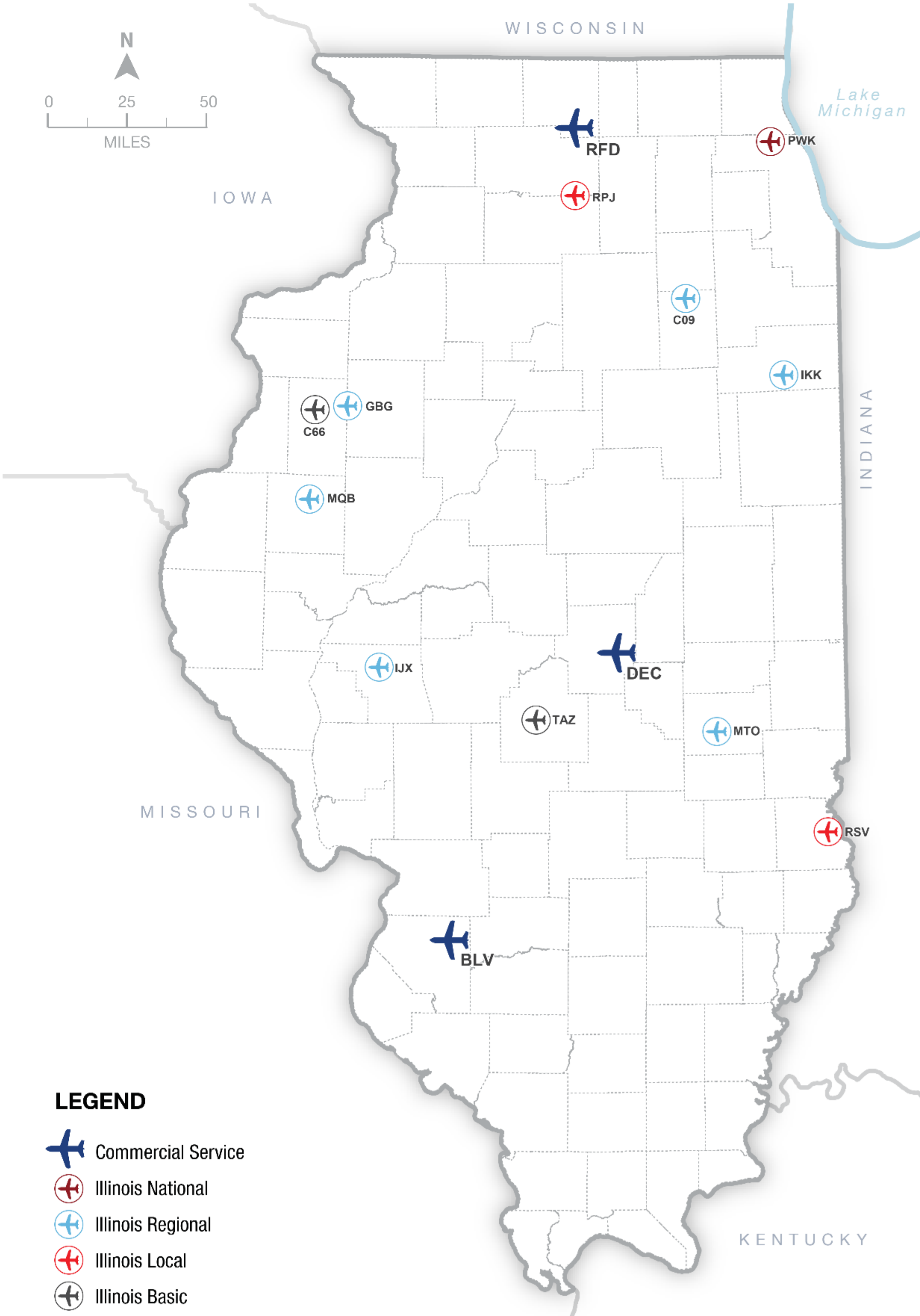
Systemwide, 17 percent of airports have both an up-to-date drainage analysis and SWPPP, as presented in **Figure 3.39**. Twenty-five percent of Commercial Service, 25 percent of Illinois National, 33 percent of Illinois Regional, eight percent of Illinois Local, and 12 percent of Illinois Basic airports reported having an up-to-date drainage analysis and SWPPP. None of the Illinois Unclassified airports have an up-to-date drainage analysis and SWPPP. Four airports did not respond to this question on the IASP Inventory Form, resulting in five percent of the system being considered "Not Provided (NP)." **Figure 3.40** depicts the IASP airports with an up-to-date drainage analysis and SWPPP.

Figure 3.39. Percent of Airports with Up-to-Date Drainage Analysis and SWPPP



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.40. Airports with Up-to-Date Drainage Analysis and SWPPP



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Goal #2 – Illinois Airport System Needs Summary

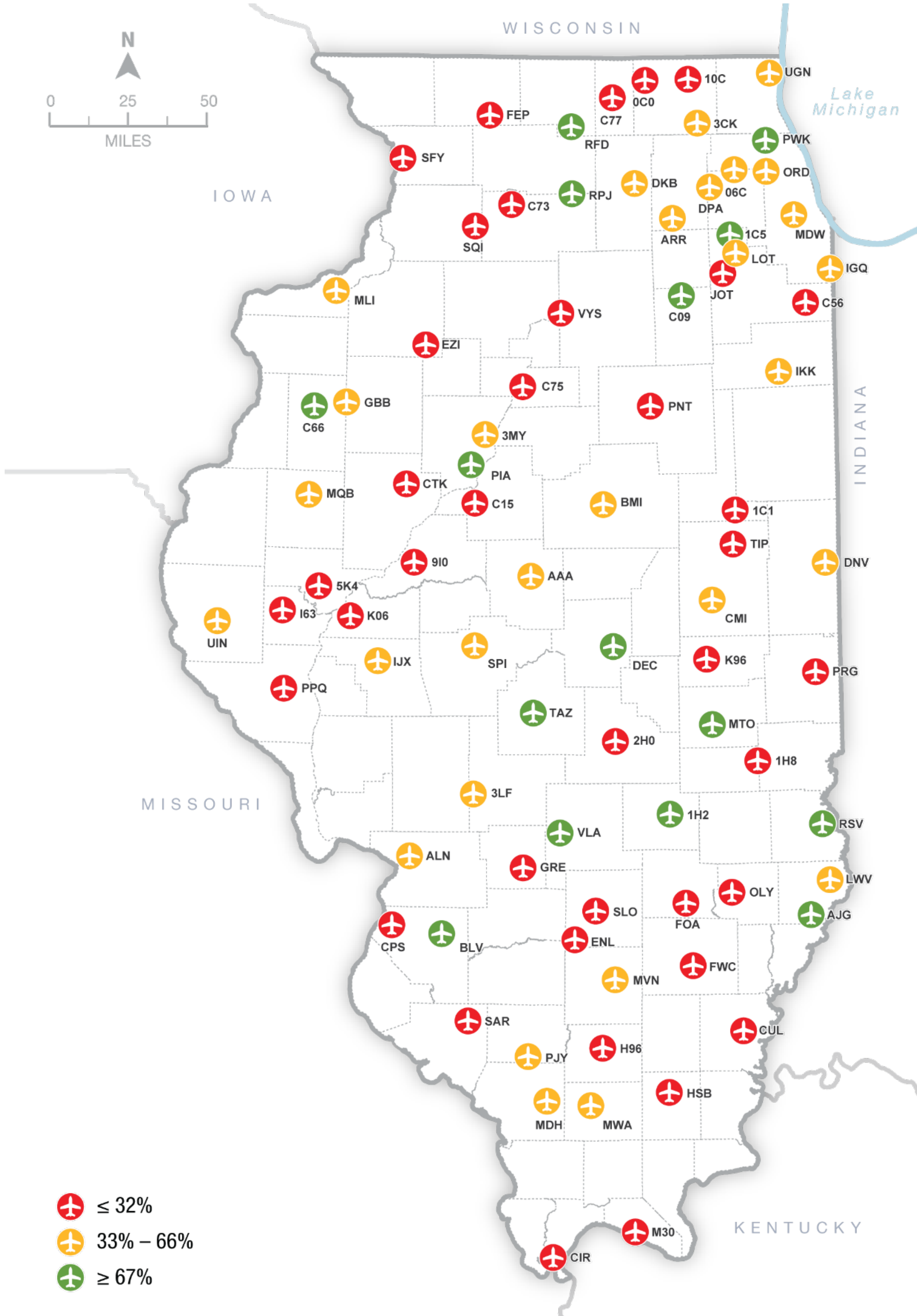
The following section summarizes and illustrates systemwide performance related to Goal #2 analyses. **Table 3.16** below describes the components of **Figure 3.41**. Of the 83 system airports, 40 are red, 29 are yellow, and 14 are green.

Table 3.16. Illinois Airport System Needs Summary – Goal #2

Icon	Description	Number of Airports
	Achieves one out of four PMs in Goal #2 (≤32%)	40
	Achieves two out of four PMs in Goal #2 (33%-66%)	29
	Achieves three or four out of five PMs in Goal #2 (≥67%)	14

Source: Kimley-Horn, 2021

Figure 3.41. Goal #2 – Airport Needs Summary Map



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

3.4.2.2. Performance Indicators

This section presents the findings of the PIs associated with Goal 2: Livability. It should be noted that PIs are not are not accompanied by future performance targets because IDOT does not have the direct ability to improve performance. The PIs for this goal are:

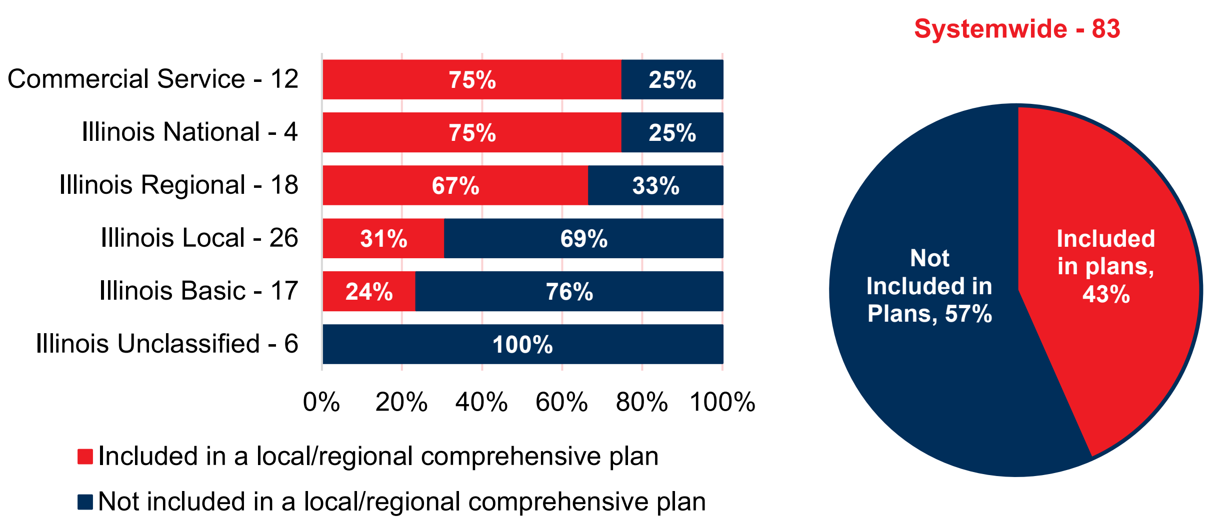
- Percent of airports included in local/regional comprehensive plans
- Percent of airports properly developing solar initiatives

Percent of Airports Included in Local/Regional Comprehensive Plans

FAA guidance on state aviation system plans emphasizes the importance of coordination between multi-modal and regional planning partners to promote the consideration of air travel and aviation facilities in other transportation-related plans. Long-term airport viability is dependent upon compatible land use and other zoning policies, which are determined by the local governing land use authority. Airports may have future expansion and development needs, which can be hindered by local zoning laws if the airport has not been factored in by the local authority, thereby leaving the airport's long-term viability in question. Moreover, comprehensive plans consider different modes of transportation and can draw connections between transportation modes and other local or regional assets, contributing to a well-connected network that supports economic activity and context-sensitive growth.

Airports were asked if the airport is included in local or regional comprehensive plans. Systemwide, 43 percent of airports reported that they are included in local/regional comprehensive plans, as presented in **Figure 3.42**. Seventy-five percent of Commercial Service, 75 percent of Illinois National, 67 percent of Illinois Regional, 31 percent of Illinois Local, and 24 percent of Illinois Basic airports are included in their local or regional comprehensive plan. None of the Illinois Unclassified airports reporting being included in their local/regional comprehensive plans.

Figure 3.42. Percent of Airports Included in Local/Regional Comprehensive Plans



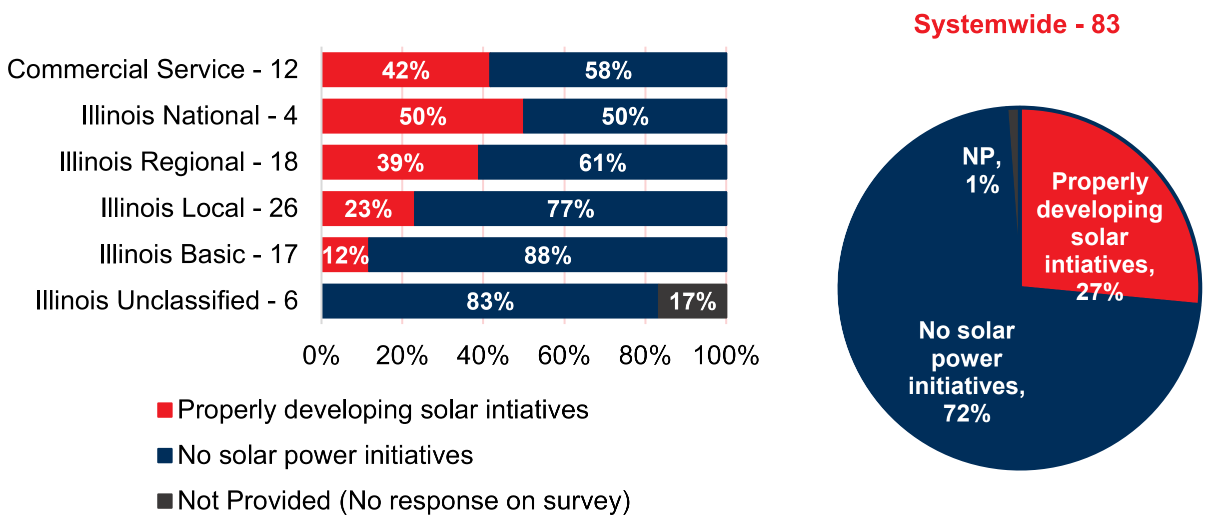
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of Airports Properly Developing Solar Initiatives

With the increased emphasis being placed on renewable sources of energy, solar power systems are being installed with more frequency than ever. Solar energy systems are considered a compatible land use at airports and can benefit the airport as a source of affordable energy and revenue through land lease payments or the sale of the energy (if the airport owns the solar panels). Although solar initiatives are compatible land uses and generally mutually beneficial for the airport and other parties, it is important that the land used for these initiatives does not encroach upon the aircraft operations area or hinder aircraft operations.

Airports were asked if they are developing, or have developed, solar initiatives on their airports. If so, airports were also asked if those initiatives are within IDOT standards. Systemwide, 27 percent of airports reported participating in solar initiatives that are within IDOT standards, as presented in **Figure 3.43.** Forty-two percent of Commercial Service, 50 percent of Illinois National, 39 percent of Illinois Regional, 23 percent of Illinois Local, and 12 percent of Illinois Basic airports have properly developed solar initiatives. None of the Illinois Unclassified airports participate in solar initiatives. One airport did not respond to this question on the IASP Inventory Form, resulting in one percent of the system being considered "Not Provided (NP)."

Figure 3.43. Percent of Airports Properly Developing Solar Initiatives



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

3.4.3. Goal 3: Mobility

The IASP Mobility Goal supports all modes of transportation to improve accessibility and safety by improving connections. The PMs and PIs associated with this goal evaluate different ways airports can support mobility, by evaluating access to air service, access to airports that support business needs, and evaluating ground transportation at system airports. In addition, other factors such as access to fuel facilities and airport features that support a range of aircraft are also assessed. The facilities, services, and airport activities associated with this Goal help to inform how the system is currently enhancing mobility by evaluating the system's ability to support the regional economy, support access to air service, and manage changes to mobility in the future.

3.4.3.1. Performance Measures and Future Performance Targets

This section presents the findings of the PMs associated with Goal 3: Mobility as well as establishes future performance targets to determine gaps and/or deficiencies in facilities or services at IASP airports. The PMs for this goal are:

- Percent of population within a 30-minute drive time of a system airport meeting business user needs
- Percent of system airports that have courtesy cars available
- Percent of airports with 24-hour fuel facilities
- Percent of airports with 10,000-gallon or greater fuel storage
- Percent of airports that have steel underground fuel storage tanks

Percent of Population within a 30-Minute Drive Time of a System Airport Meeting Business User Needs

There are a wide variety of businesses in Illinois that contribute to the local, state, and national economy. These businesses rely on both GA and commercial service airports to support their business activities, whether for travel, shipping products, or otherwise. Business aviation not only supports good, well-paying jobs, but airports that support business/corporate aviation can contribute significantly to direct and indirect impacts on local economies.

Airports that support business user needs will typically have the following facilities and services at a minimum:

- 5,000' Runway
- Jet-A Fuel
- Instrument Approach Procedures (IAP)
- Ground Transportation: On-site Rental Car, Courtesy Car, Taxi, or Ride Share

Determining the percent of Illinois population within a 30-minute drive of an airport that supports business user needs indicates the level of access communities have to the economic benefits of business aviation. Moreover, commerce and businesses being near these airports allow business users to quickly get to and from the airport, enhancing mobility intra- and interstate. Drive times of more than 30 minutes to business suitable airports can lead to gaps in service for residents and businesses, leading to underserved or underrepresented communities.

Existing Conditions

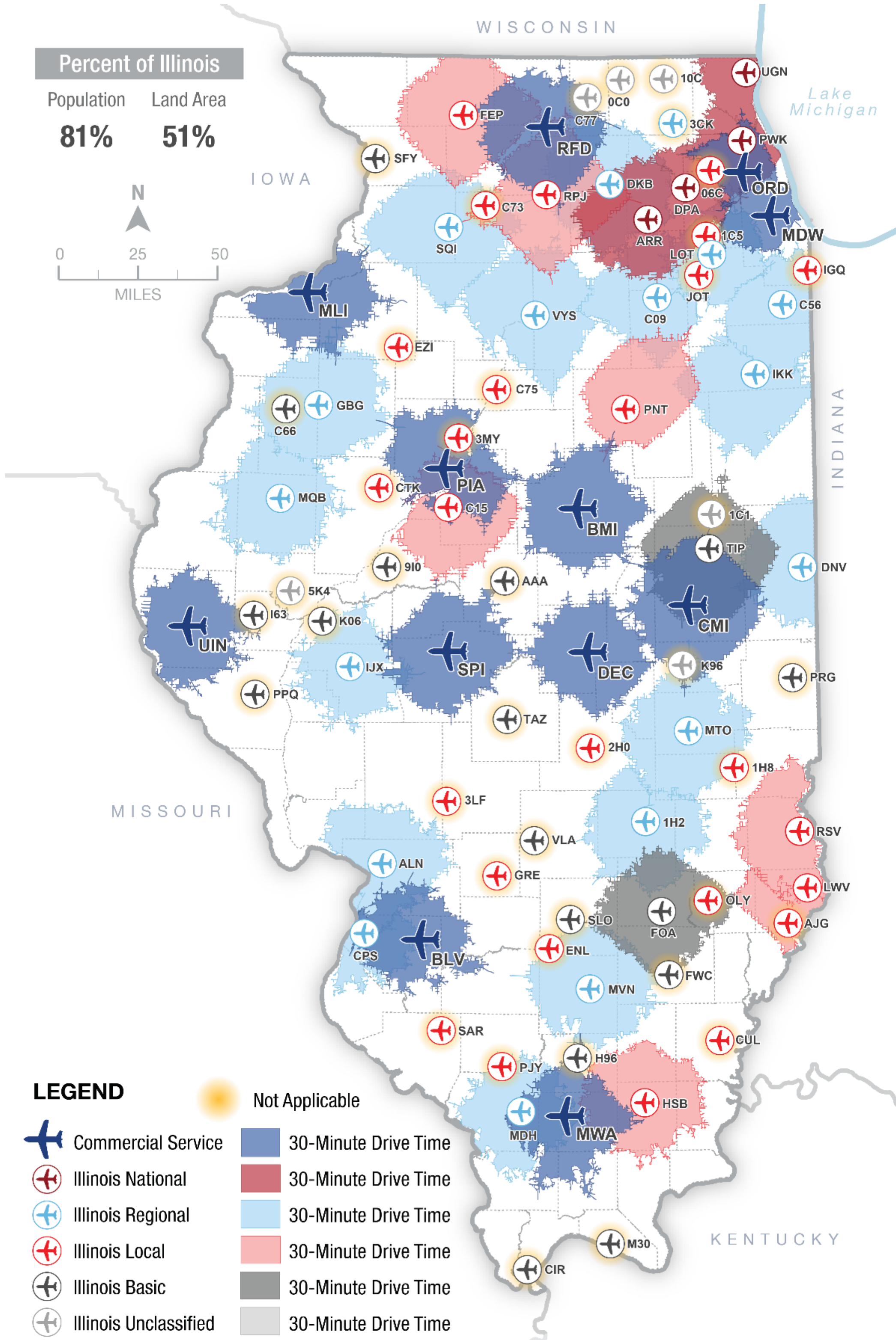
Airports were evaluated on their ability to support business user needs based on the data they provided in the IASP Inventory Form for the criteria listed above. With this information, 30-minute drive time buffers were developed around the facilities meeting business user need criteria. Using GIS and U.S. Census data, a community profile report was created that determined the population and land area within the drive-time buffers. For the purpose of this analysis, the population and land area of neighboring states as well as intrastate population coverage overlaps were not included. Using this methodology, it was determined that 81 percent of Illinois's total population, or approximately 10.4 million people, live within a 30-minute drive of an airport that supports business aviation, accounting for 51 percent, or approximately 29,600 square miles, of total land area, as presented in **Figure 3.44**. **Table 3.17** shows the number of airports within each IASP classification that meet the minimum requirements necessary to support business user needs.

Table 3.17. Number Airports Meeting Business User Needs

IASP State Classification	Number of Airports Meeting Business User Needs
Commercial Service	12
Illinois National	4
Illinois Regional	17
Illinois Local	7
Illinois Basic	2
Illinois Unclassified	0

Sources: IASP Inventory Form, 2020, Kimley-Horn, 2020

Figure 3.44. Percent of Population within a 30-Minute Drive of an Airport Meeting Business User Needs



Sources: ESRI Community Analyst, Community Profile, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.18**, the future performance target for this PM is set at 100 percent for Commercial Service, Illinois National, Illinois Regional, and Illinois Local airports which is consistent with FSOs. Illinois Basic and Illinois Unclassified airports do not have a target for meeting business user needs, however, airports in these classifications who already meet business user needs should maintain that ability. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.18. Percent of Airports by Classification Meeting Business User Needs – Future Performance Target

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	100%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	88%	100%
Illinois Local - 26	19%	100%
Illinois Basic - 17	11%	Not a target
Illinois Unclassified - 6	0%	Not a target
Systemwide - 83	**47%**	**75%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021; ESRI ArcGIS Online

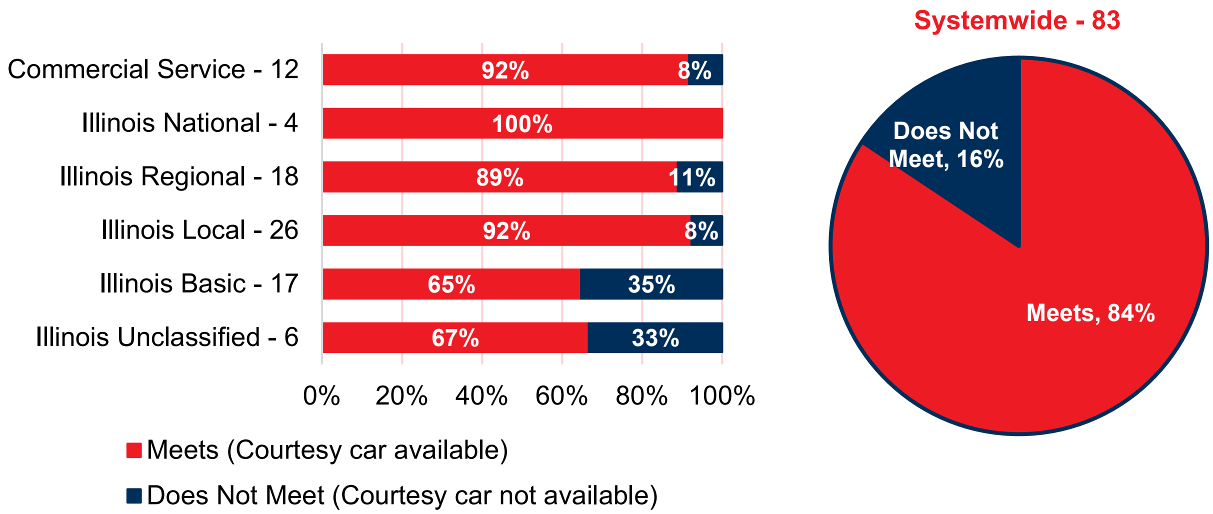
Percent of Airports that have Courtesy Cars Available

A courtesy car is owned by the airport and made available, typically free of charge, to airports users to access nearby locations. The presence of a courtesy car supports access between the airport and the surrounding community, particularly if the airport does not experience enough traffic to warrant public transit, rental cars, and other forms of ground transportation.

Existing Conditions

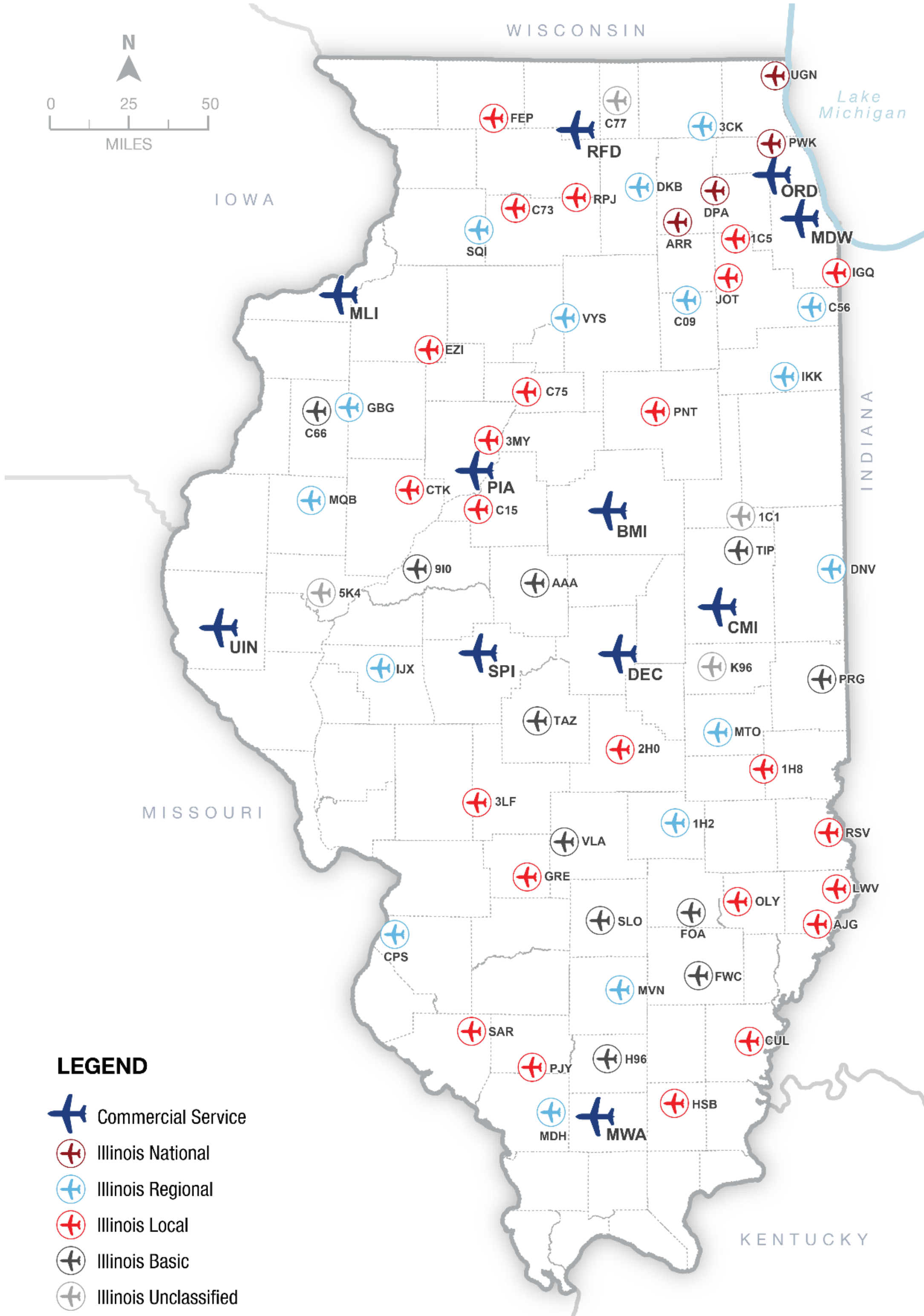
Airports were asked if their airport offers a courtesy car to airport users. Systemwide, 84 percent of airports meet the courtesy car PM because they have a courtesy car available, as presented in **Figure 3.45**. Ninety-two percent of Commercial Service, all Illinois National, 89 percent of Illinois Regional, 92 percent of Illinois Local, 65 percent of Illinois Basic, and 67 percent of Illinois Unclassified airports meet this PM. **Figure 3.46** depicts the IASP airports that have courtesy cars available.

Figure 3.45. Percent of Airports that have Courtesy Cars Available



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.46. Airports that have Courtesy Cars Available



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future targets

As shown in **Table 3.19**, the future performance target for this PM is set at 100 percent for all airports except for Commercial Service airports. It should be noted that this PM relates specifically to airport-owned courtesy cars. Some airports may rely on FBO-owned courtesy cars and therefore should coordinate with their on-site FBOs to determine the most effective way to offer courtesy cars at the airport. IDOT should also work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.19. Percent of Airports by Classification that have Courtesy Cars Available – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	92%	As needed
Illinois National - 4	100%	100%
Illinois Regional - 18	89%	100%
Illinois Local - 26	92%	100%
Illinois Basic - 17	65%	100%
Illinois Unclassified - 6	67%	100%
Systemwide - 83	**84%**	**98%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

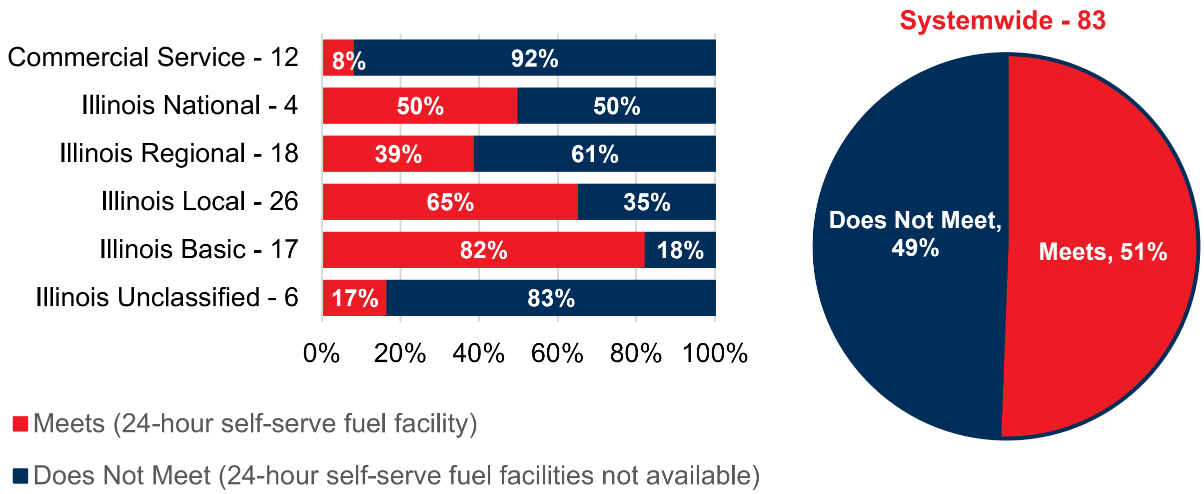
Percent of Airports with 24-Hour Self-Serve Fuel Facilities

A 24-hour self-serve fuel facility allows pilots to refuel their aircraft without the need for an attendant by using a card reader. The presence of a 24-hour fuel system is an attractive service to pilots and can be critical for some users, particularly air ambulance operators. Twenty-four-hour fuel facilities are a main source of revenue for many airports and allow the airport to generate revenue when the airport is not staffed.

Existing Conditions

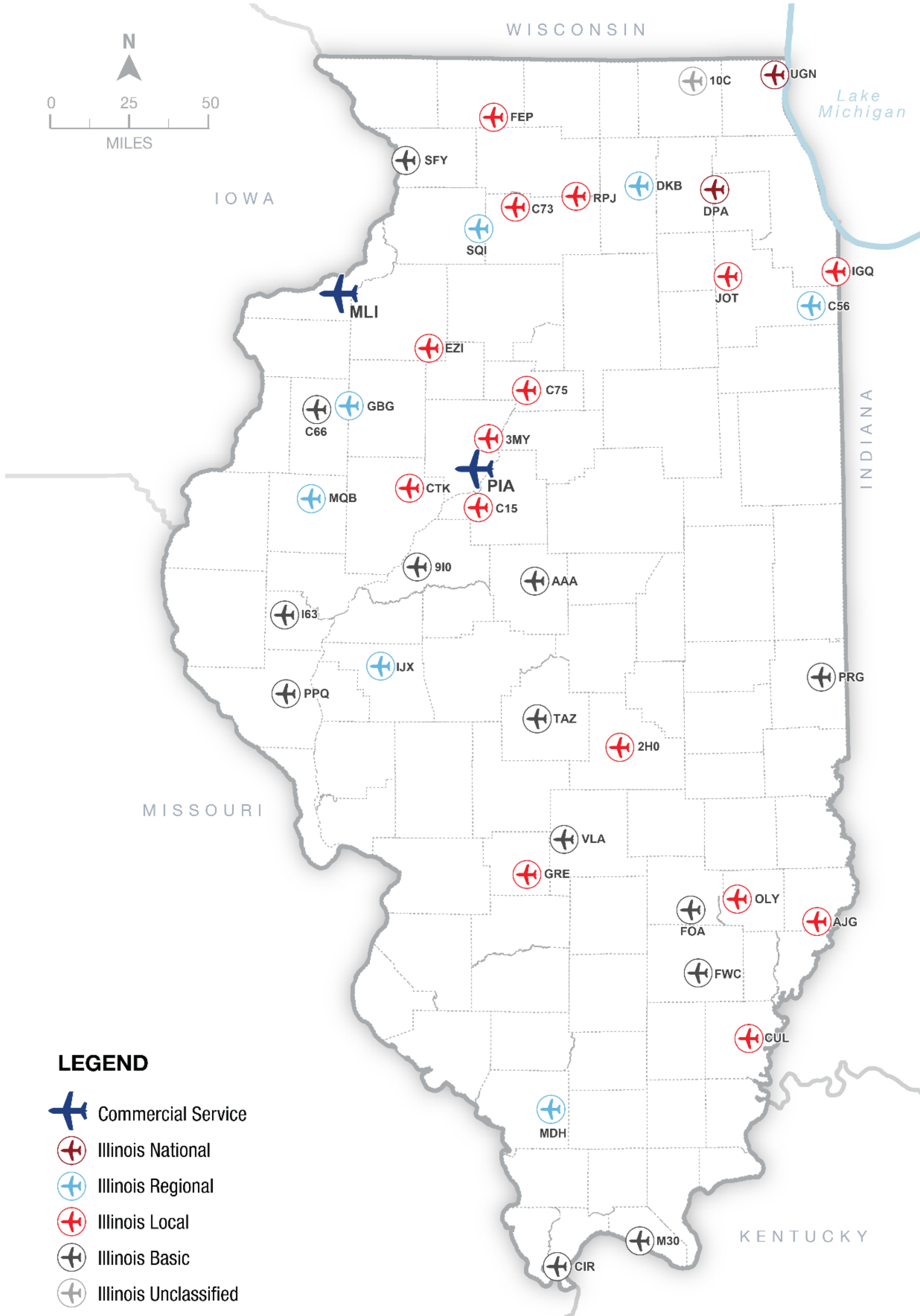
Airports were asked if their airport provides 24-hour self-serve fuel facilities, which could include either Jet A or 100LL fuel. Systemwide, 51 percent of airports meet the 24-hour self-serve fuel facility PM as presented in **Figure 3.47**. Eight percent of Commercial Service, 50 percent of Illinois National, 39 percent of Illinois Regional, 65 percent of Illinois Local, 82 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports meet this PM. It should be noted that this PM specifically evaluated 24-hour fuel provided by the airport. All Commercial Service and Illinois National airports have FBOs on-site that provide 24-hour fuel, either by credit card reader or full-service. **Figure 3.48** depicts the IASP airports with 24-hour fuel facilities.

Figure 3.47. Percent of Airports with 24-Hour Self-Serve Fuel Facilities



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.48. Airports with 24-Hour Self-Serve Fuel Facilities



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.20**, the future performance target for this PM is set at 100 percent for all airports which is based on FSOs by airport classification. As mentioned previously, current performance in **Table 3.20** below is based on airport-provided fuel and does not take into account FBO-provided fuel service. IDOT should work with IASP airports not currently meeting the PM, who also don't have 24-hour FBO-provided fuel services, to improve identified system deficiencies.

Table 3.20. Percent of Airport by Classification with 24-Hour Fuel Facilities – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	8%	100%
Illinois National - 4	0%	100%
Illinois Regional - 18	33%	100%
Illinois Local - 26	58%	100%
Illinois Basic - 17	76%	100%
Illinois Unclassified - 6	17%	Not a Target
Systemwide - 83	**43%**	**93%**

Note: Airport-provided fuel only, does not account for FBO services.
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

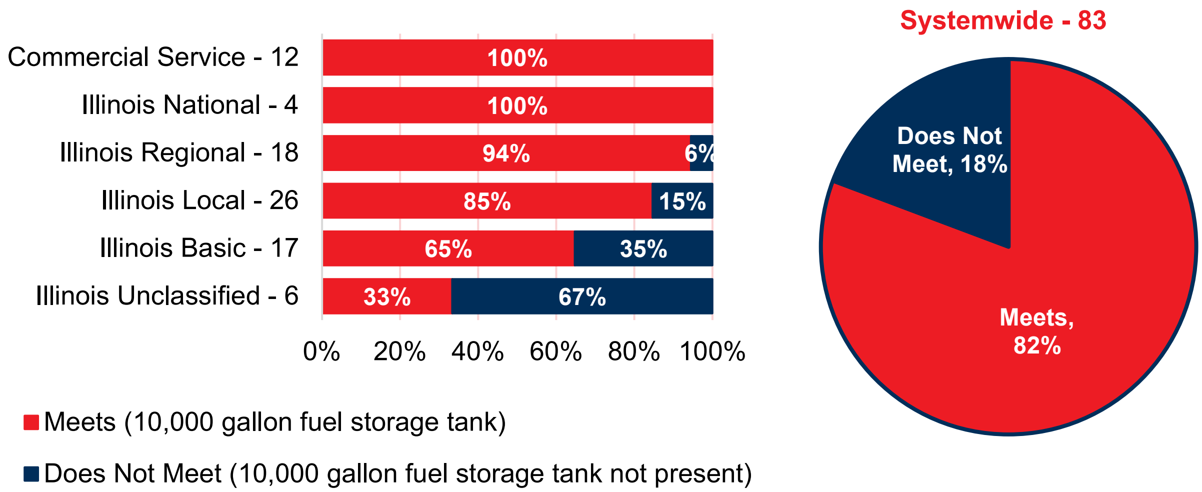
Percent of Airports with 10,000-Gallon or Greater Fuel Storage

Adequate fuel storage is an important component for airports, particularly GA airports, as fuel sales provide a large portion of revenue for airports that do not receive revenue from scheduled air service. Adequate fuel storage prevents an airport from running out of fuel, which could lead to loss in revenue. Although a 10,000-gallon storage capacity will suffice for many GA airports, commercial service airports need significantly greater fuel storage to ensure demand is satisfied. However, the threshold determined to be most appropriate for this PM is a fuel storage tank that can hold a minimum of 10,000 gallons.

Existing Conditions

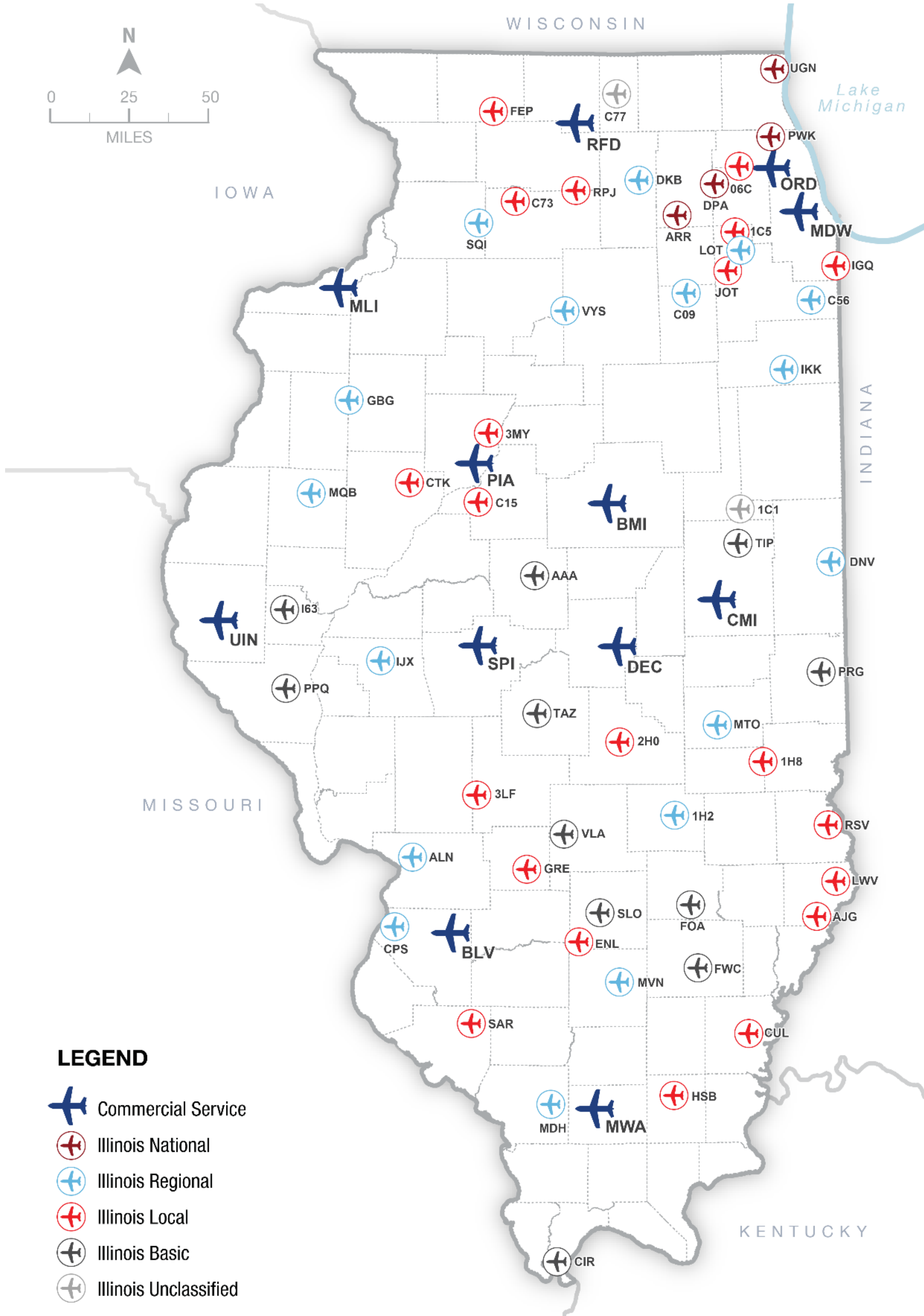
Airports were asked if their airport has fuel storage tanks that can hold 10,000 gallons or more of fuel. Systemwide, 82 percent of airports meet the fuel storage PM because they reported having a 10,000-gallon or greater fuel storage, as presented in **Figure 3.49**. All Commercial Service, all Illinois National, 94 percent of Illinois Regional, 85 percent of Illinois Local, 65 percent of Illinois Basic, and 33 percent of Illinois Unclassified airports meet this PM. **Figure 3.49** depicts the IASP airports with 10,000-gallon or greater fuel storage.

Figure 3.49. Percent of Airports with 10,000-Gallon or Greater Fuel Storage



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.50. Airports with 10,000-Gallon or Greater Fuel Storage



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.21**, the future performance target for this PM is set at 100 percent for all airports. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.21. Percent of Airports by Classification with 10,000 or Greater Gallon Fuel Storage – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	100%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	94%	100%
Illinois Local - 26	81%	100%
Illinois Basic - 17	65%	100%
Illinois Unclassified - 6	33%	100%
Systemwide - 83	**81%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

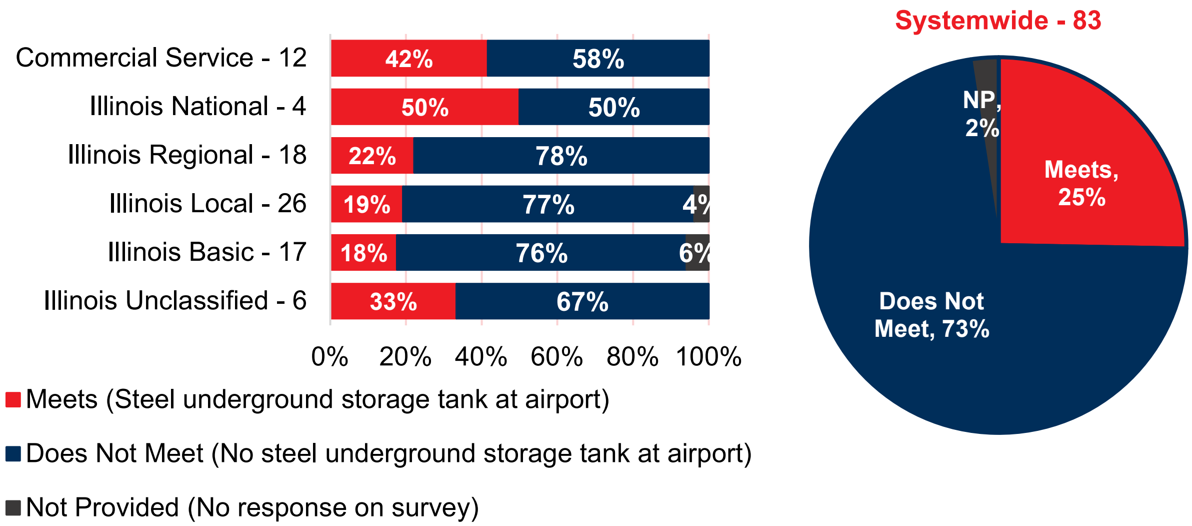
Percent of Airports that have Steel Underground Storage Tanks

Underground fuel storage tanks were once a popular option for fuel storage, however, there have been recent efforts to decommission these tanks due to environmental concerns. Steel underground fuel tanks were commonly installed at airports; however, it is now common and preferred that above-ground fiberglass tanks are used for fuel storage. Concerns related to environmental impacts due to storing fuel underground inside steel tanks was one of the leading factors that contributed to this practice becoming antiquated. Efforts have been made to remove many of the steel underground storage tanks.

Existing Conditions

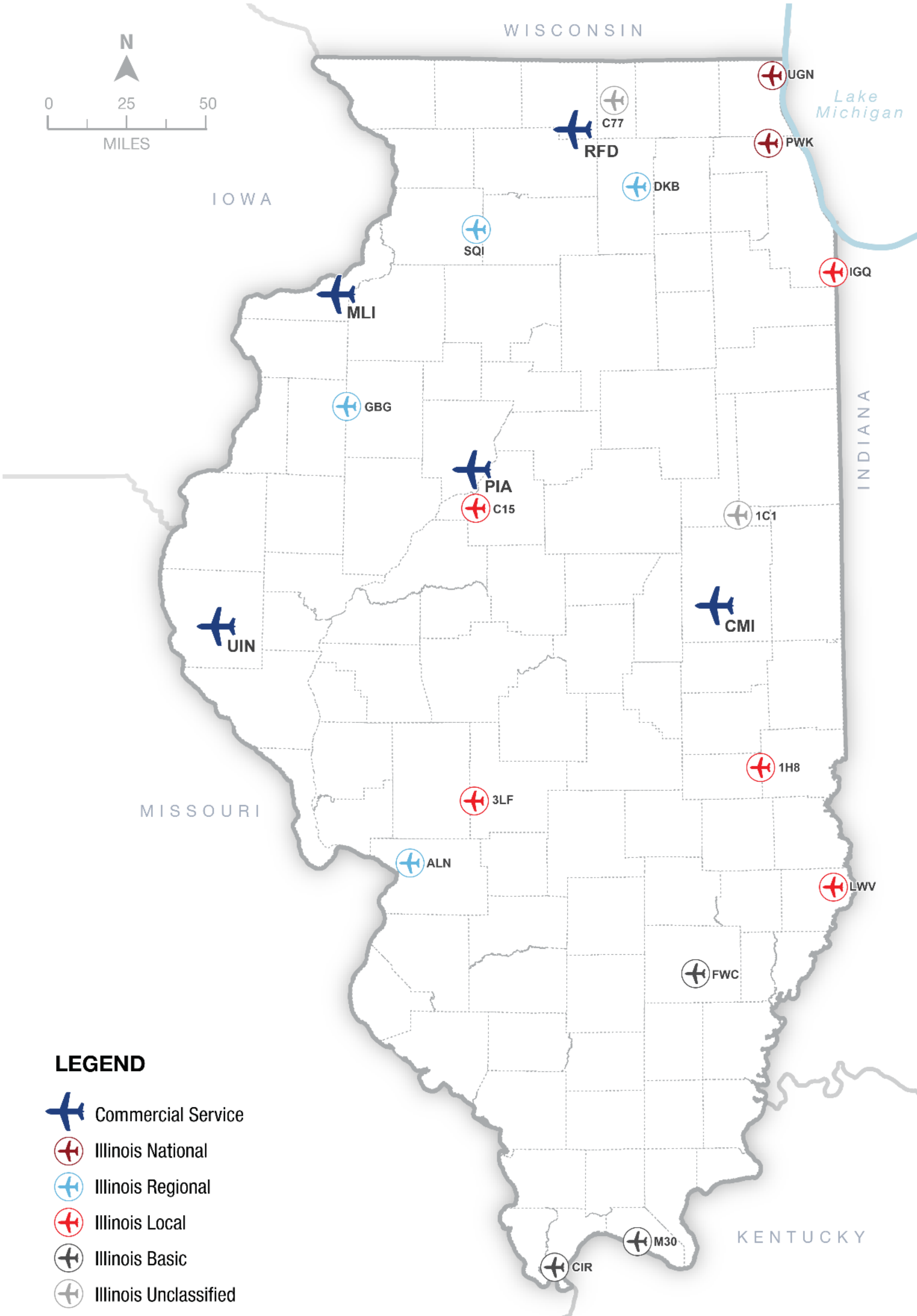
Airports were asked if their airport has steel underground storage tanks, and if they do, if they have plans to remove them. Systemwide, 25 percent of airports meet the steel underground tank PM because they reported having steel underground tanks, as presented in **Figure 3.51**. Forty-two percent of Commercial Service, 50 percent of Illinois National, 22 percent of Illinois Regional, 19 percent of Illinois Local, 18 percent of Illinois Basic, and 33 percent of Illinois Unclassified airports meet this PM. Of the 23 airports that reported having steel underground tanks, five of them have plans to remove the tanks in the future. Two airports did not respond to this question on the survey and were considered "Not Provided (NP)." **Figure 3.51** depicts the IASP airports with steel underground storage tanks.

Figure 3.51. Percent of Airports that have Steel Underground Fuel Storage Tanks



Sources: IASP Inventory, 2020, Kimley-Horn, 2020

Figure 3.52. Airports that have Steel Underground Storage Tanks



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.22**, the future performance target for this PM is set at zero percent for all airports (i.e., no IASP airports should have underground steel fuel storage tanks). IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.22. Percent of Airports by Classification that have Steel, Underground Fuel Storage Tanks – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	42%	0%
Illinois National - 4	50%	0%
Illinois Regional - 18	22%	0%
Illinois Local - 26	19%	0%
Illinois Basic - 17	18%	0%
Illinois Unclassified - 6	33%	0%
Systemwide - 83	**25%**	**0%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Goal #3 – Illinois Airport System Needs Summary

The following section summarizes and illustrates systemwide performance related to Goal #3 analyses. **Table 3.23** below describes the components of **Figure 3.53**. Of the 83 system airports, two are red, 23 are yellow, and 58 are green.

Table 3.23. Illinois Airport System Needs Summary – Goal #3

Icon	Description	Number of Airports
	Achieves one out of five PMs in Goal #3 (≤32%)	2
	Achieves two or three out of five PMs in Goal #3 (33%-66%)	23
	Achieves four or five out of five PMs in Goal #3 (≥67%)	58

Source: Kimley-Horn, 2021

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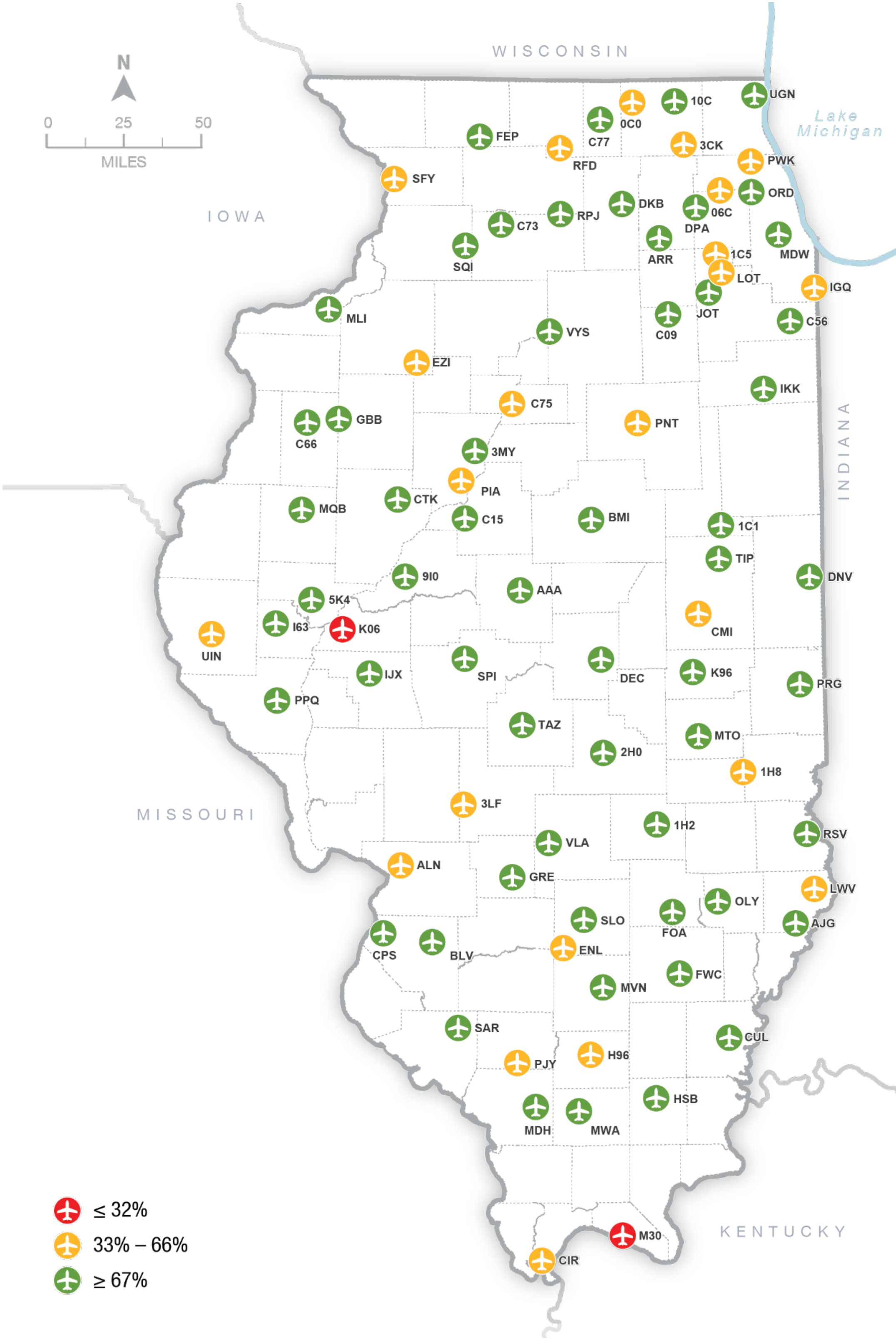
Figure 3.53. Goal #3 – Airport Needs Summary Map



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

3.4.3.2. Performance Indicators

This section presents the findings of the PIs associated with Goal 3: Mobility. It should be noted that PIs are not are not accompanied by future performance targets because IDOT does not have the direct ability to improve performance. The PIs for this goal are:

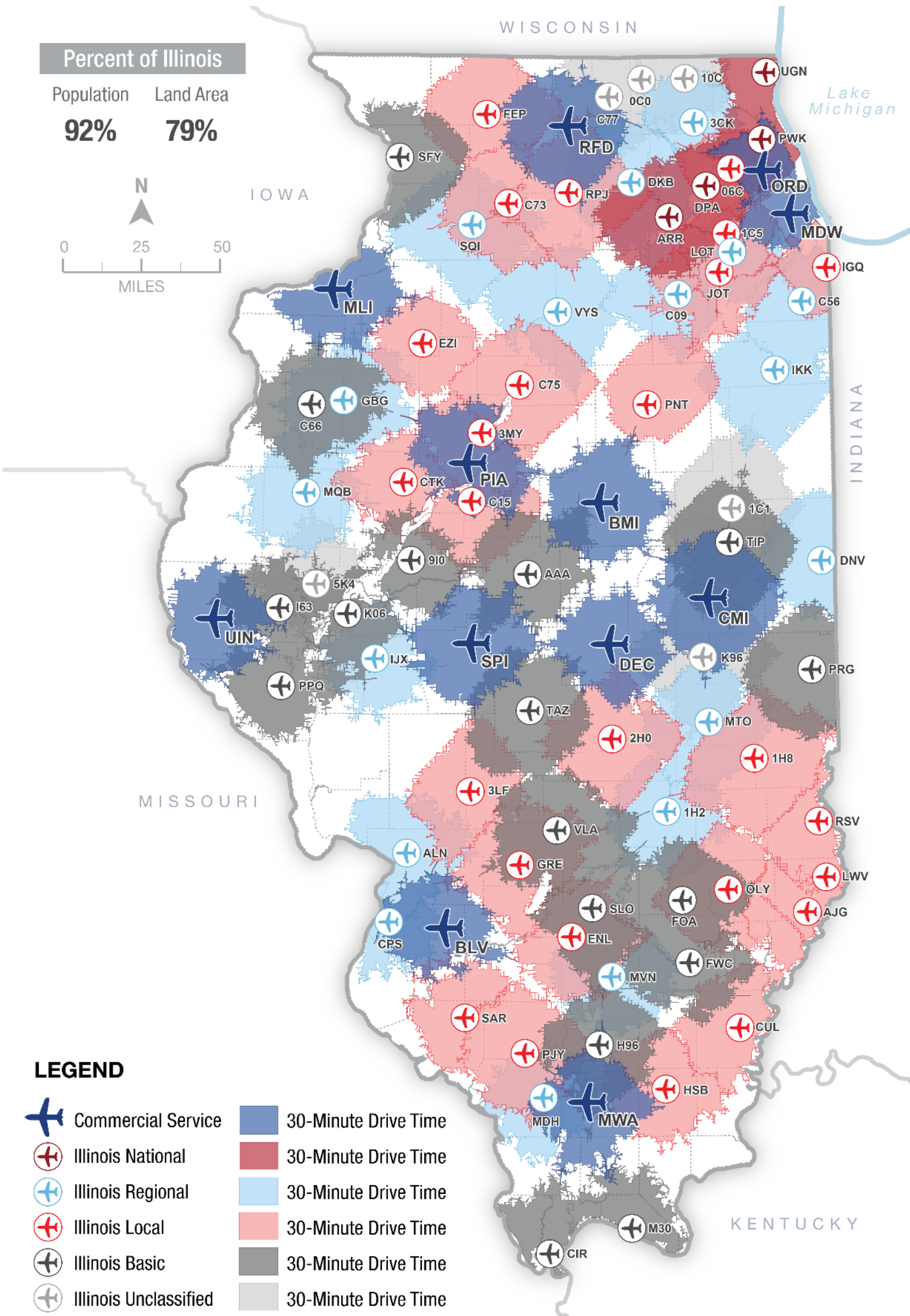
- Percent of population within a 30-minute drive time of a system airport
- Percent of population within a 30-minute drive time of a NPIAS airport
- Percent of population within a 60-minute drive time of a commercial service airport
- Percent of system airports that have rental cars available
- Percent of system airports that are served by public transit
- Percent of airports at or exceeding 60K lbs. primary runway pavement strength
- Percent of airports with a grooved primary runway
- Percent of airports with a formal process to manage UAS operations

Percent of Population within a 30-Minute Drive Time of a System Airport

This PI assesses the population's access to Illinois airports system-wide and by state classifications. The purpose of this analysis is to identify population and land area coverage to ensure the highest number of Illinois residents are within proximity of an airport.

Thirty-minute drive time buffers were developed around each of the airports in the system. Using GIS and U.S Census data, a community profile report was run that determined the population and land area within the drive-time buffers. For the purpose of this analysis, the population and land area of neighboring states as well as intrastate population coverage overlaps were not included. Using this methodology, it was determined that 92 percent of Illinois's total population, or approximately 11.8 million people, live within a 30-minute drive of a system airport, this accounts for 79 percent, or approximately 46,000 square miles, of total land area, as presented in **Figure 3.54**.

Figure 3.54. Percent of Population within a 30-Minute Drive Time of a System Airport

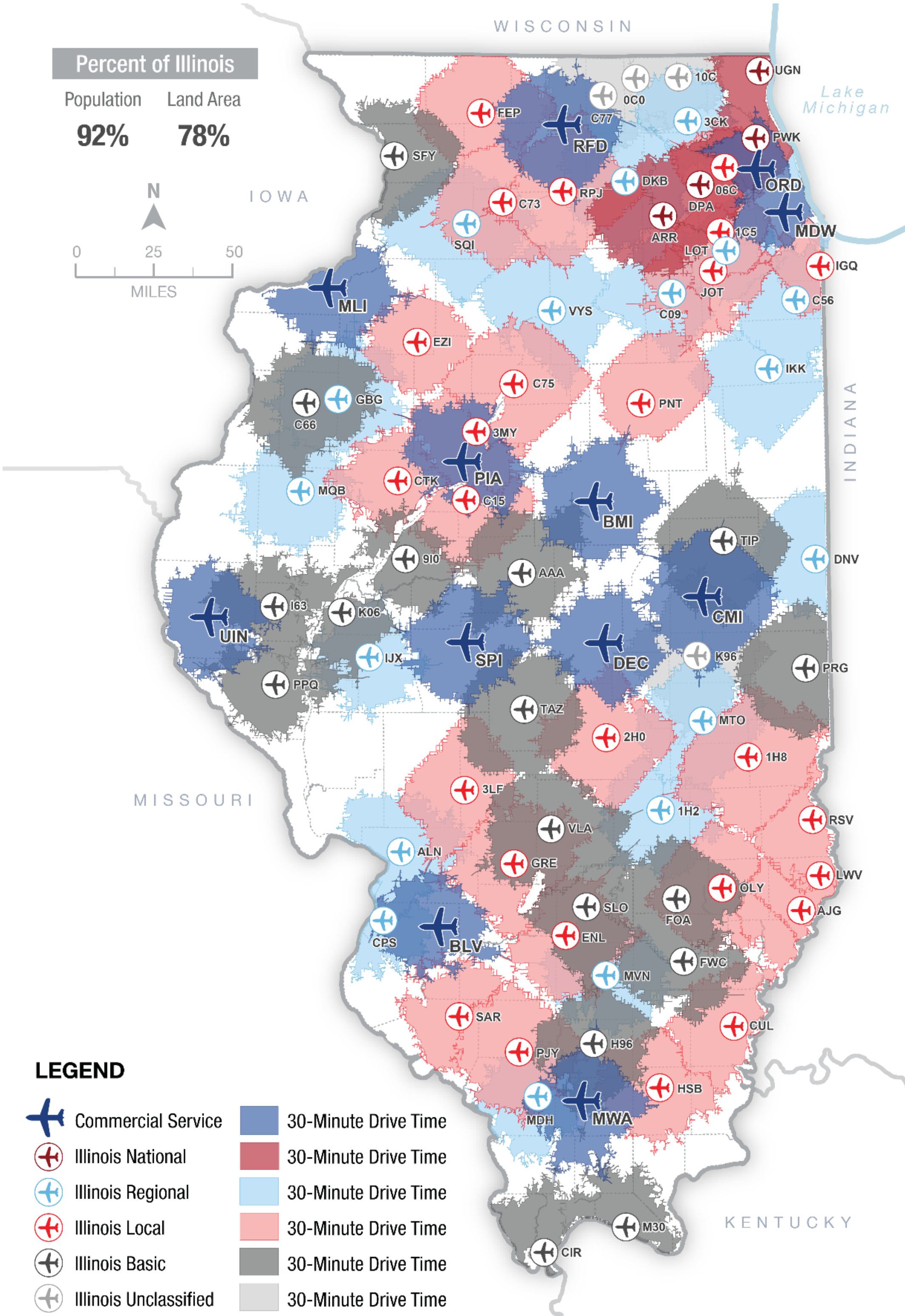


Sources: ESRI Community Analyst, Community Profile, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Percent of Population within A 30-Minute Drive Time of a NPIAS Airport

Similar to the previous PI, this analysis evaluates population and land area coverage within a 30-minute drive of NPIAS airports. For the purpose of this analysis, the population and land area of neighboring states as well as intrastate population coverage overlaps were not included. As presented in **Figure 3.55**, 92 percent of Illinois's total population, or approximately 11.8 million people, living within a 30-minute drive of a system airport, accounting for 78 percent, or 45,000 square miles, of total land area.

Figure 3.55. Percent of Population within a 30-Minute Drive Time of a NPIAS Airport



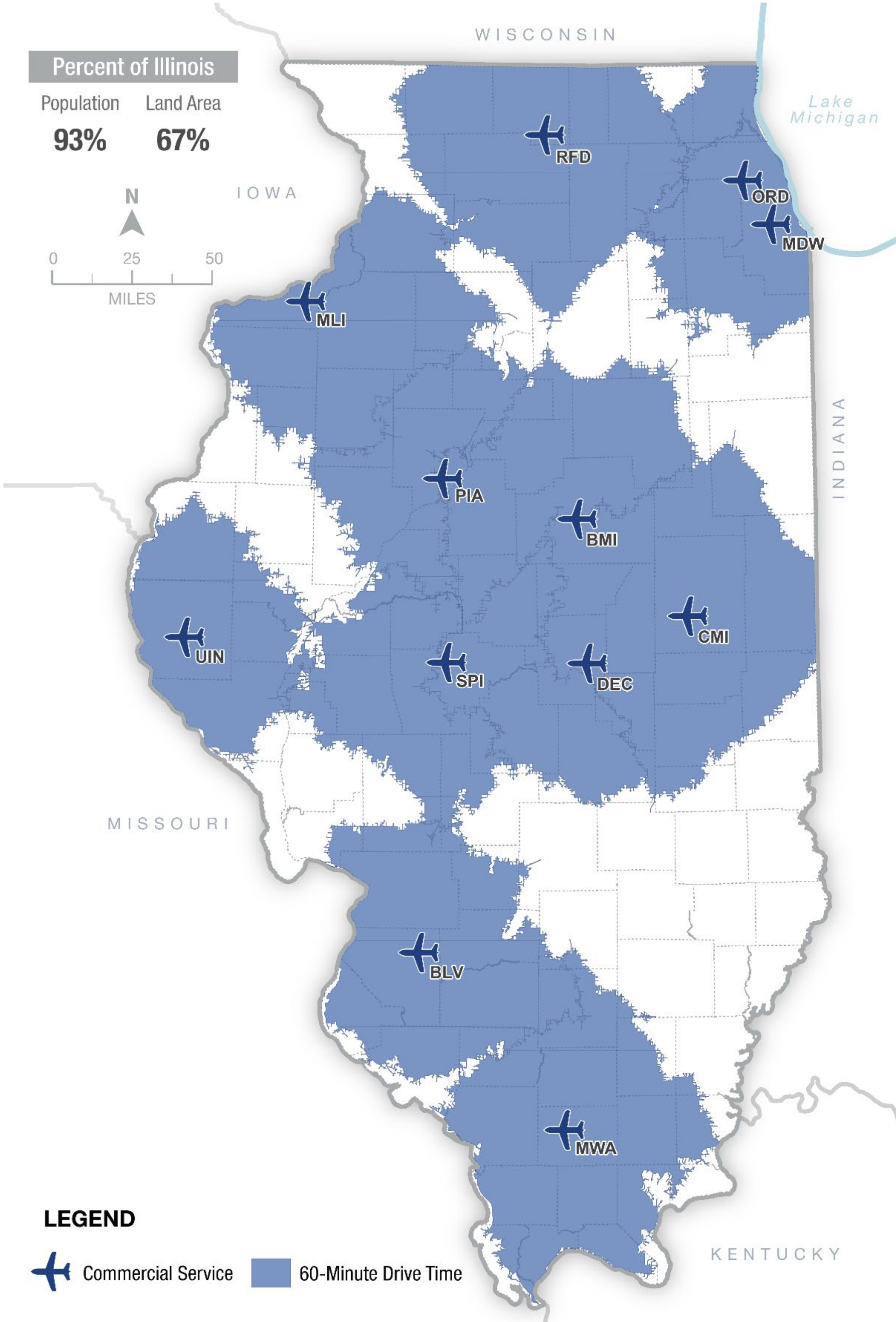
Sources: ESRI Community Analyst, Community Profile, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Percent of Population within a 60-Minute Drive Time of a Commercial Service Airport

Commercial service airports are a vital asset to the state, its residents, and economy as the airports facilitate the movement of people and goods statewide, nationwide, and globally. Since commercial service airports tend to serve a more regional, national, and global role in the system, it is important that they are located within more densely populated areas, with bustling commercial service airports generally located within larger metropolitan areas.

Sixty-minute drive time buffers were developed around each of the 12 commercial service airports in the system. For the purpose of this analysis, the population and land area of neighboring states as well as intrastate population coverage overlaps were not included. Based on this analysis, 93 percent of Illinois's total population, or approximately 12 million people, live within a 60-minute drive of a system airport, accounting for 67 percent, or approximately 39,000 square miles of total land area, as presented in **Figure 3.56**.

Figure 3.56. Percent of Population within a 60-Minute Drive Time of a Commercial Service Airport



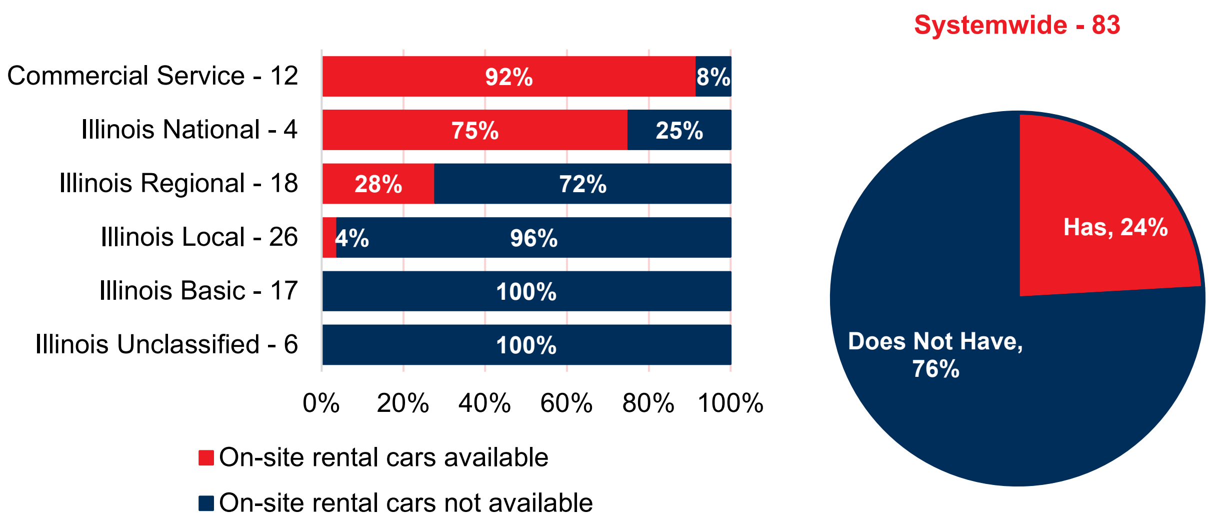
Sources: ESRI Community Analyst, Community Profile, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Percent of Airports that have Rental Cars Available

On-site rental car facilities are typically found at commercial service airports and larger GA airports that support a high volume of business and leisure travelers. Rental car facilities are a key ground transportation option for many airports, allowing users at to efficiently connect to the surrounding community. Business and leisure users rely on rental car access to complete their travel needs. The existence of a rental car facility at an airport can greatly increase the number of travelers that visit the airport due to the added convenience of on-demand personal ground transportation.

Airports were asked if their airport has on-site rental car facilities available. Systemwide, 24 percent of airports reported having on-site rental car facilities, as presented in **Figure 3.57**. Ninety-two percent of Commercial Service, 75 percent of Illinois National, 28 percent of Illinois Regional, and four percent of Illinois Local airports have on-site rental car facilities. None of the Illinois Basic or Illinois Unclassified airports reported having on-site rental car facilities.

Figure 3.57. Percent of Airports that have Rental Cars Available



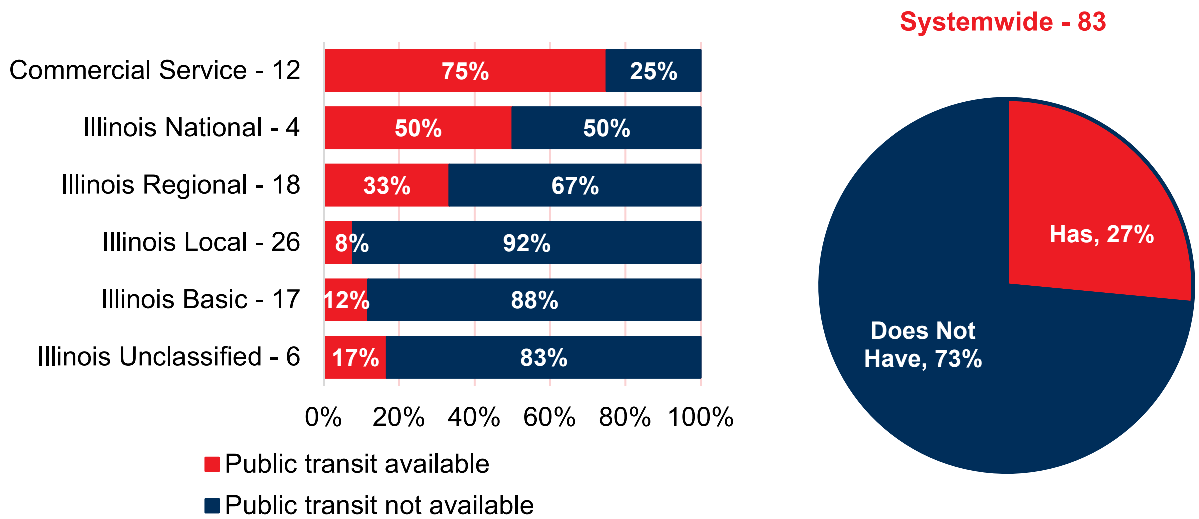
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of Airports that are Served by Public Transit

Rental cars are typically the preferred modal link between the airport and community. However, many GA airports don't experience the level of activity to warrant a rental car facility and must rely on other ground transportation modes such as public transit. Public transit options, including bus and commuter rail, offer an affordable and reliable source of transportation, and as such, were evaluated in this PI.

Airports were asked if their airport is served by any public transit options, including bus, heavy-rail (train), and light-rail. Systemwide, 27 percent of airports reported having at least one public transit option available at their airport, as presented in **Figure 3.58**. Seventy-five percent of Commercial Service, 50 percent of Illinois National, 33 percent of Illinois Regional, eight percent of Illinois Local, 12 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports have at least one public transit option available.

Figure 3.58. Percent of Airports that are Served by Public Transit



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

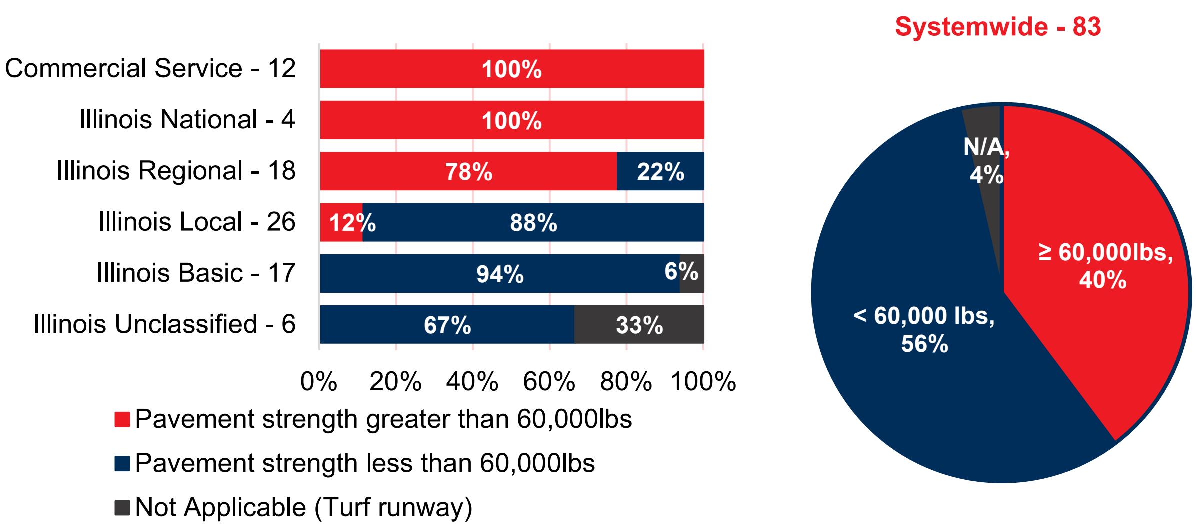
Percent of Airports at or Exceeding 60K Lbs. Primary Runway Pavement Strength

Runway pavement strength determines the load bearing capacity of a runway based on its pavement type and design. While this type of pavement assessment is becoming somewhat aged according to FAA *AC 150/5320-6F,* it is used in the assessment of this PI to evaluate the existing pavement strength conditions at system airports. A runway strength of 60,000 pounds is considered strong enough to support anything from a light single engine aircraft to a medium sized regional jet, making it suitable for most GA airports but not quite adequate for commercial service airports.

This data provides some contextual understanding of existing pavement strengths; however, it will not be used to inform any project recommendations for the 2020 IASP considering that FAA guidance is moving away from pavement strength as a metric for load bearing ability. Instead, the FAA is transitioning over to using the International Civil Aviation Organization (ICAO) standard of a Pavement Classification Number (PCN) used in combination with the Aircraft Classification Number (ACN). This method of reporting is based on the concept of reporting strength in terms of a standardized equivalent single wheel load. While PCN is an important emerging metric for airport planning, it is not suitable for systemwide analyses as PCN is an airport-by-airport evaluation that is based on a variety of airport-specific conditions, including individual aircraft analyses.

Systemwide, 40 percent of airports have primary runway pavement strengths of 60,000 pounds or more, as presented in **Figure 3.59**. All Commercial Service, all Illinois National, 78 percent of Illinois Regional, and 12 percent of Illinois Local have a primary runway strength of 60,000 pounds or more. None of the Illinois Basic or Illinois Unclassified airports have a primary runway strength that is or exceeds 60,000 pounds. There are three airports in the system that do not have paved runways and are therefore “Not Applicable (N/A)” to this analysis. One airport did not answer this question on the survey and the data was not available from other data sources, so it was considered “Not Provided (NP)” for this analysis.

Figure 3.59. Percent of Airports at or Exceeding 60,000 Lbs. Primary Runway Pavement Strength



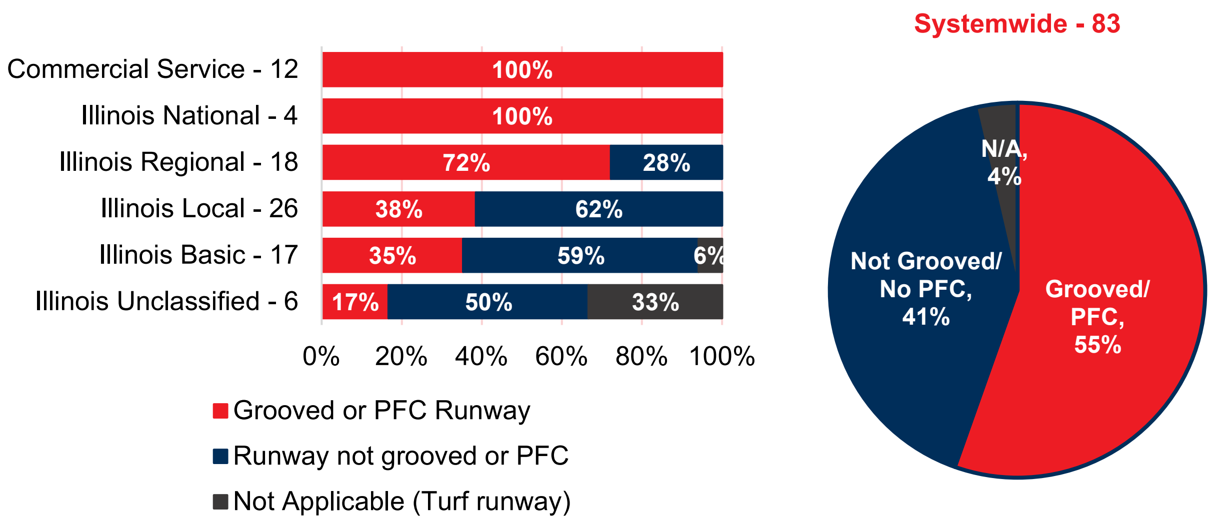
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Percent of Airports with a Grooved Primary Runway

A paved runway can be treated so that the surface is grooved or considered Porous Friction Course (PFC). Grooving a runway provides channels for water to escape, reducing, or eliminating the presence of standing water and enhancing tire friction on wet pavement. Improved tire friction can reduce or eliminate the possibility of hydroplaning and contribute to safer aircraft operations.[12] PFC is a hot mix asphalt that is applied in a thin layer on the surface of the paved runway and has several benefits. PFC treatment can reduce risk of hydroplaning, decrease splash and spray, reduce tire/pavement noise, improve visibility of pavement markings at night or in wet conditions, and contributes to cleaner storm water runoff compared to dense graded mixes.[13]

Airports were asked if their airport has a grooved or PFC primary runway, and data was confirmed using the FAA 5010 form. Systemwide, 55 percent of airports reporting having a grooved or PFC primary runway, as presented in **Figure 3.60**. All Commercial Service, all Illinois National, 72 percent of Illinois Regional, 38 percent of Illinois Local, 35 percent of Illinois Basic, and 17 percent of Illinois Unclassified airports have a grooved or PFC runway. Three airports do not have paved runways, resulting in four percent of the system being considered “Not Applicable (N/A).”

Figure 3.60. Percent of Airports with a Grooved or a PFC on Primary Runway



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

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[12] *Runway Grooving: A Good Solution Takes Off,* Aviation Pros, April 2019. https://www.aviationpros.com/aoa/runway-management/taxiway-ramp-maintenance-training/article/12433064/runway-grooving-a-good-solution-takes-off (Accessed February 2021)

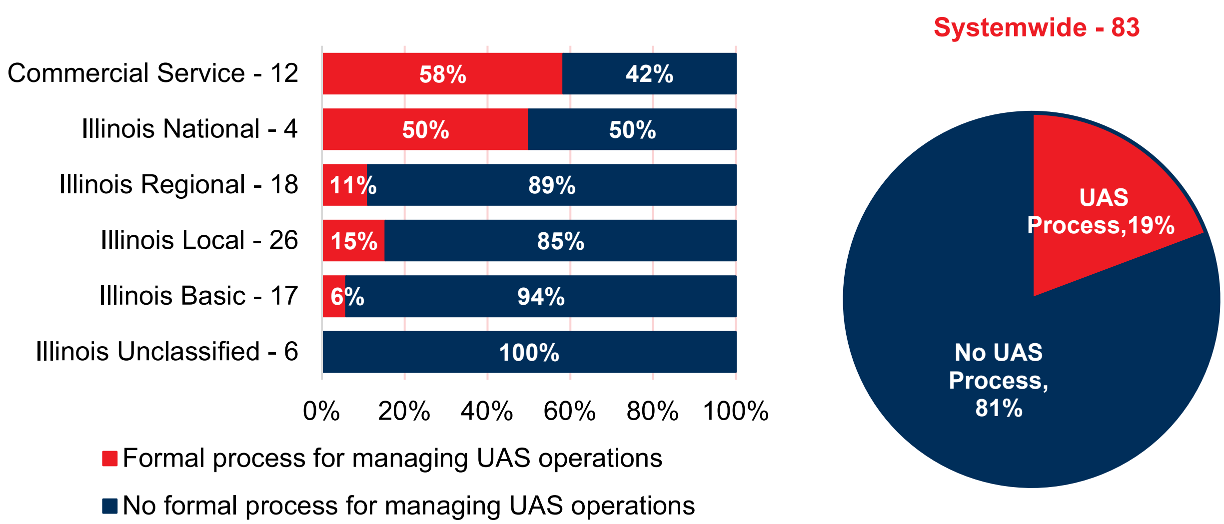
[13] *Guidelines on Construction and Maintenance of Porous Friction Courses*, Texas Transportation Institute, December 2007. https://static.tti.tamu.edu/tti.tamu.edu/documents/0-5262-2.pdf (Accessed February 2021)

Percent of Airports with a Formal Process to Manage UAS Operations

Unmanned aircraft systems (UAS) is the term for the control systems which govern the use of unmanned aircraft vehicles (UAV), or more commonly referred to as drones. UAS can be used for a wide variety of tasks including delivery of goods, assisting emergency response crews, police surveillance activity, agricultural spraying, monitoring environmentally sensitive areas, and more. Although UAS has many benefits, UAS operations near airports can be extremely hazardous to pilots and their passengers. Due to the significant risk that these operations pose within the airport environment many airports have established certain programs or practices to manage UAS operations effectively. See **Section 4.5.2** in **Chapter 4. Aviation System Issues** for a more detailed discussion about the implications of UAS operations in Illinois.

Airports were asked if their airport has adopted a formal program for receiving, managing, and responding to on/near airport UAS use requests. Systemwide, 19 percent of airports reported that they have adopted a formal UAS management process, as presented in
Figure 3.61. Fifty-eight percent of Commercial Service, 50 percent of Illinois National, 11 percent of Illinois Regional, 15 percent of Illinois Local airports, and six percent of Illinois Basic airports have a formal process to manage UAS operations. None of the Illinois Unclassified airports have adopted a formal process to manage UAS operations.

Figure 3.61. Percent of Airports with a Formal Process to Manage UAS Operations



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

3.4.4. Goal 4: Resiliency

The IASP Resiliency Goal was established to proactively assess, plan, and invest in the state's transportation system to ensure that infrastructure is prepared to sustain and recover from extreme events and disruptions. The PMs and PIs associated with this goal evaluate systemwide preparedness for emergencies, natural disasters, and spills, as well as the adequacy of Snow Removal Equipment (SRE) and snow removal procedures at the system level. The facilities, services, and airport activities associated with this Goal help to inform how the system is supporting efforts to develop a sustainable and resilient aviation system that has the capacity to serve current and future needs, and be functional during inclement weather, natural disasters, and other unforeseen challenges.

3.4.4.1. Performance Measures and Future Performance Targets

This section presents the findings of the PMs associated with Goal 4: Resiliency as well as establishes future performance targets to determine gaps and/or deficiencies in facilities or services at IASP airports. The PMs for this goal are:

- Percent of airports that have adopted and maintain an emergency response plan
- Percent of airports with emergency response equipment or mutual aid agreement including in-kind with sponsor
- Percent of airports with dedicated SRE, a storage building for the SRE, or mutual aid agreement – including in-kind from sponsor for snow removal
- Percent of airports with up-to-date spill prevention plans

Percent of Airports that have Adopted and Maintain an Emergency Response Plan

An airport emergency is defined as any occasion or instance, natural or manmade, that warrants action to save lives and protect property and public health. Airport emergency response plans are highlighted in the FAA *AC 150/5200-31C* which states that the plan should address several different emergency scenarios. These emergency scenarios include:

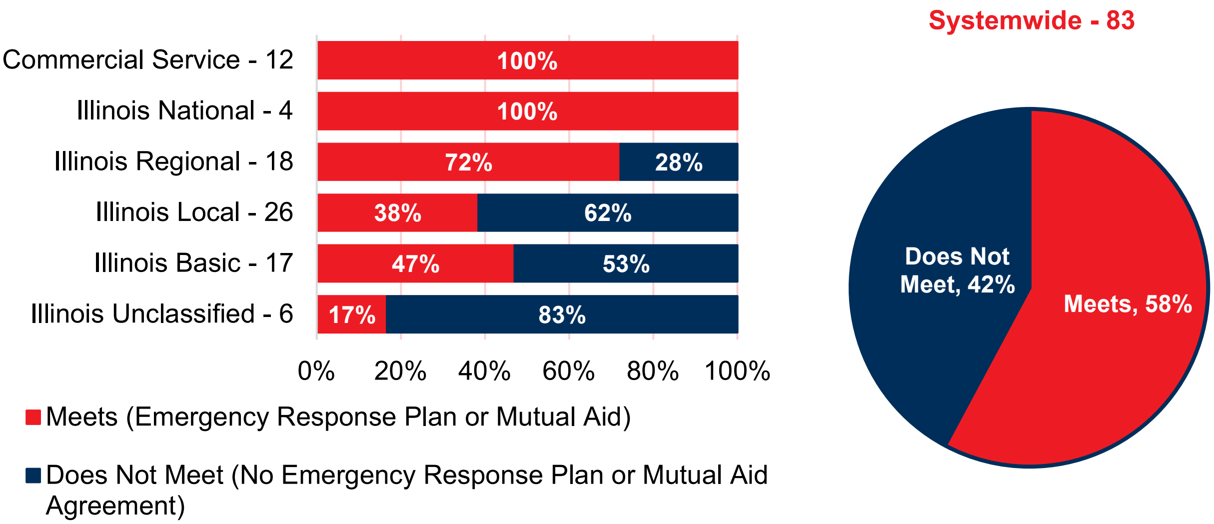
- An emergency that occurs on or directly impacts an airport or adjacent property under airport authority
- When the event may present a threat to the airport because of the proximity of the emergency to the airport
- Where the airport has responsibilities under local/regional emergency plans and by mutual aid agreements

While every contingency cannot be anticipated and prepared for, a comprehensive and maintained emergency response plan can mitigate the negative impact of these events. Emergency response plans are tools that can enhance safety and resiliency at airports as they outline the procedures necessary to deescalate or resolve outcomes of emergency situations.

Existing Conditions

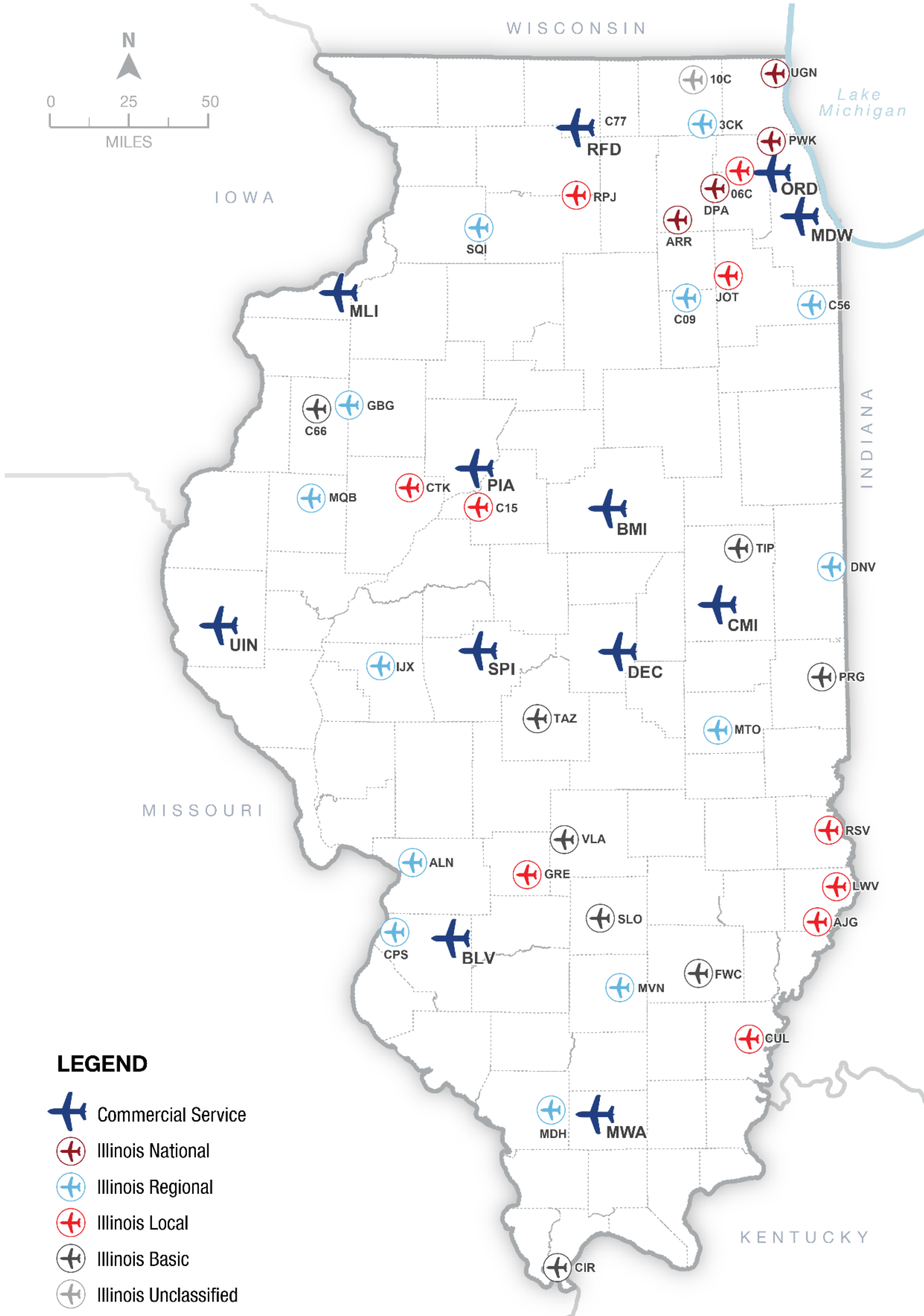
Airports were asked if their airport has adopted and maintains an emergency response plan. Statewide, 58 percent of airports meet the emergency response plan PM because they have adopted and maintain an emergency response plan, as presented in **Figure 3.62**. All Commercial Service and National airports, as well as 72 percent of Illinois Regional, 38 percent of Illinois Local, 47 percent of Illinois Basic, and 17 percent of Unclassified airports meet this PM. **Figure 3.63** depicts the IASP airports that have an adopted and maintain an emergency response plan.

Figure 3.62. Percent of Airports that have Adopted and Maintain an Emergency Response Plan



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.63. Airports that have Adopted and Maintain an Emergency Response Plan



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.24**, the future performance target for this PM is set at 100 percent for all airports. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.24. Percent of Airports by Classification that have Adopted and Maintain an Emergency Response Plan – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	100%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	73%	100%
Illinois Local - 26	38%	100%
Illinois Basic - 17	47%	100%
Illinois Unclassified - 6	17%	100%
Systemwide - 83	**58%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Airports with Emergency Response Equipment or Mutual Aid Agreement Including In-Kind with Sponsor

Due to the nature of aviation-related emergencies, specialized equipment is needed for certain types of emergency scenarios. The types of emergency equipment that an airport needs varies widely depending on the type of aircraft that utilize the airport. Factors such as the size and weight of the aircraft, the amount of fuel on board, the number of passengers aboard, and aircraft design differentiate the level of response and equipment needed to properly handle the emergency. Equipment that may be necessary for aviation-related emergencies can be classified into the following categories:

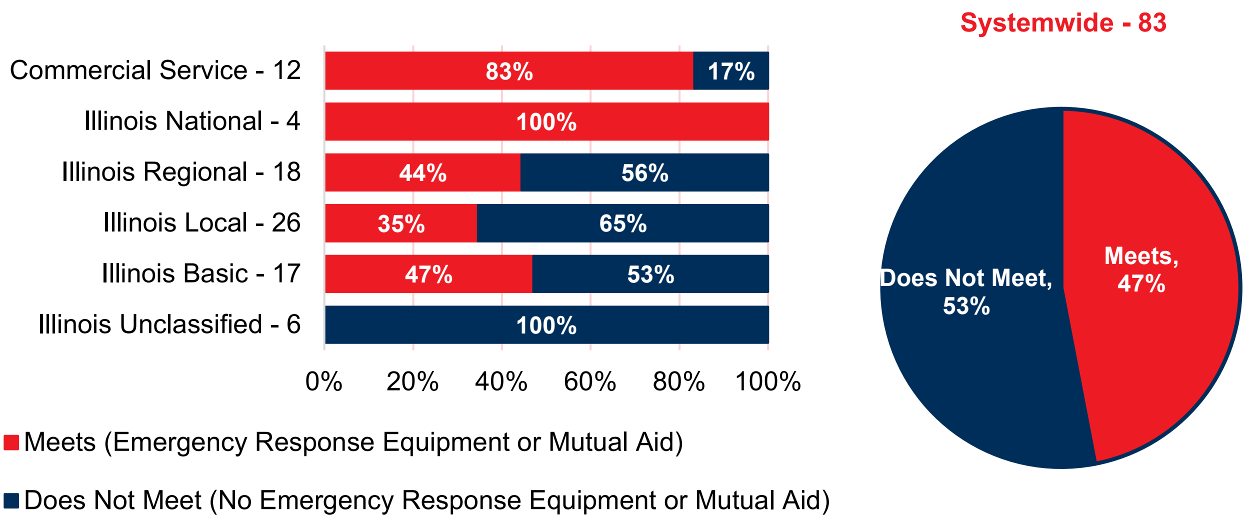
- Communication Equipment – Cell phones, light guns, high frequency radios
- Debris Removal and Clean Up Equipment – Airlifting bags, hydraulic jack, cribbing
- Victim Extraction Equipment – Saws, ropes, ladders, bolt and cable cutters
- ARFF Equipment – Piercing nozzles, wenches
- Emergency Response Gear – Hazardous materials suits, heat resistant clothing, breathing apparatuses
- Emergency Response Vehicles – ARFF vehicles, all-terrain vehicles, hazardous material trucks
- Fire Extinguishing Equipment – Primary agent foams, fire extinguishers, dry chemicals
- Medical Equipment – Oxygen tanks, stretchers, defibrillators

In the event an airport is not able to acquire their own emergency response equipment, they can enter into a mutual aid agreement. A mutual aid agreement establishes the terms under which one party provides resources, personnel, teams, facilities, equipment, and supplies to another party. Mutual aid agreements are particularly important in areas where emergency response resources are scarce. The mutual aid agreement allows jurisdictions to distribute or provide their resources when needed for high demand incidents. Aviation-related emergencies require an organized and quick response. Having a mutual aid agreement in place and emergency equipment on airport property can help save lives.

Existing Conditions

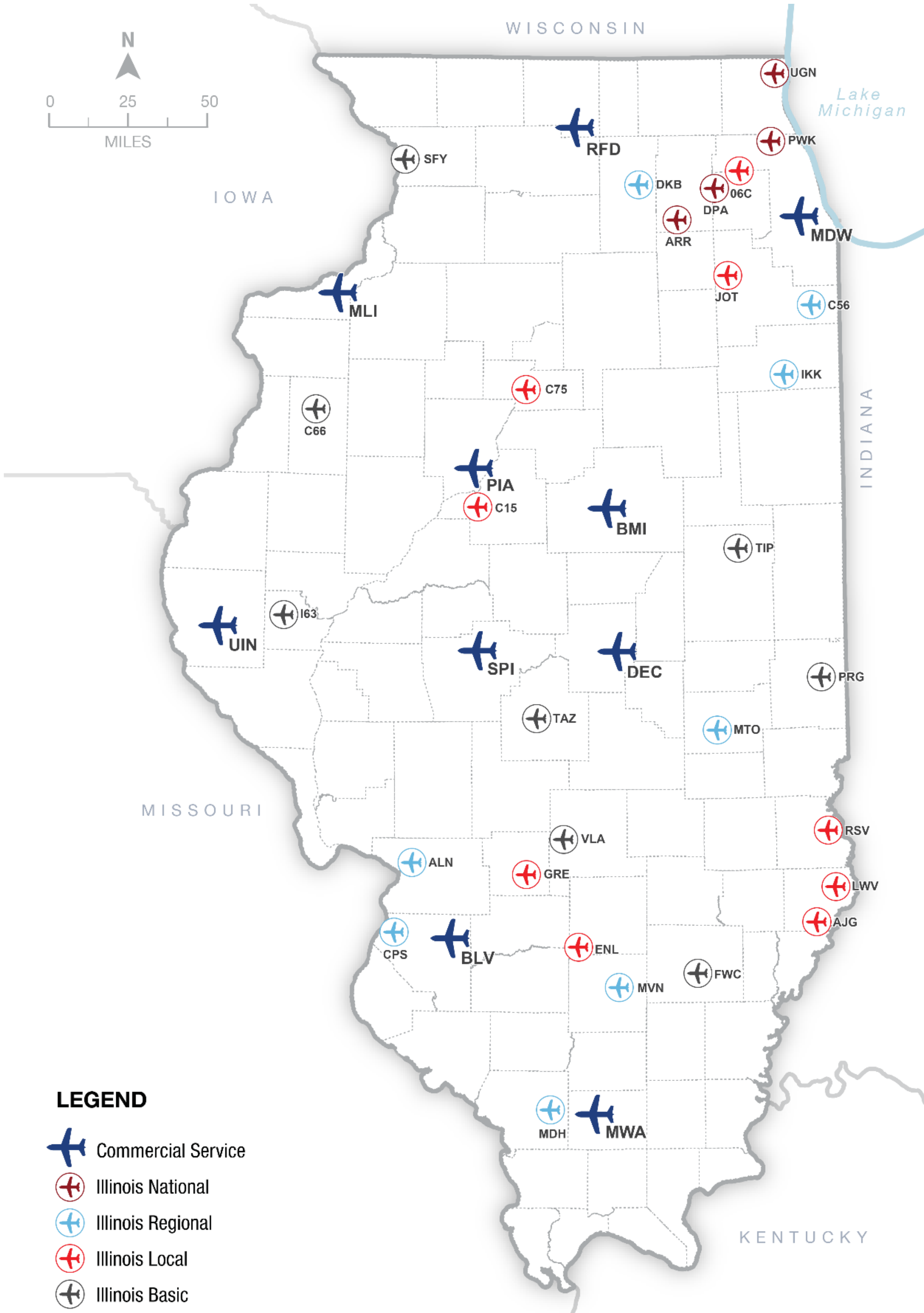
Airports were asked if their airport has emergency response equipment through ownership or mutual aid agreement. Systemwide, 47 percent of airports meet the emergency response equipment PM because they reported having emergency response equipment through ownership or mutual aid agreement, as presented in **Figure 3.64**. Eighty-three percent of Commercial Service, all Illinois National, 44 percent of Illinois Regional, 35 percent of Illinois Local, and 47 percent of Illinois Basic airports meet this PM. None of the Illinois Unclassified airport reported having emergency response equipment through ownership or mutual aid agreement. **Figure 3.65** depicts the IASP airports with emergency response equipment through ownership or mutual aid agreement.

Figure 3.64. Percent of Airports with Emergency Response Equipment or Mutual Aid Agreement Including In-Kind with Sponsor



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.65. Airports with Emergency Response Equipment through Ownership or Mutual Aid Agreement



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.25**, the future performance target for this PM is set at 100 percent for all airports. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.25. Percent of Airports by Classification with Emergency Response Equipment or Mutual Aid Agreement – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	92%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	44%	100%
Illinois Local - 26	35%	100%
Illinois Basic - 17	47%	100%
Illinois Unclassified - 6	0%	100%
Systemwide - 83	**47%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Percent of Airports with Dedicated SRE, with a Storage Building for the SRE, or Mutual Aid Agreement – Including In-Kind from Sponsor for Snow Removal

SRE is relied upon heavily in winter months and can be a vital asset for an airport. Common types of SRE found at airports include high-speed rotary plows, snowplows, blowers, and runway brooms. FAA guidance in FAA *AC 150/5220-20A* states that commercial service airports that provide regularly scheduled air carrier service should have at least one high-speed rotary plow. The FAA recommends that GA airports have a snowplow on site, unless the airport experiences more than 30 inches of annual snowfall, in which case a high-speed rotary plow would be necessary. For airports with SRE, it is also important that they have dedicated storage facilities for the equipment to mitigate the potential for deterioration. If an airport does not have SRE on-site, or the staffing to conduct the snow removal themselves, they can engage in a mutual aid agreement with a local agency or private firm to assist with snow removal.

Airports were asked a series of questions to determine the adequacy of their snow removal procedures. Airports were first asked if they have adequate SRE equipment and then asked to indicate what equipment they had from this list:

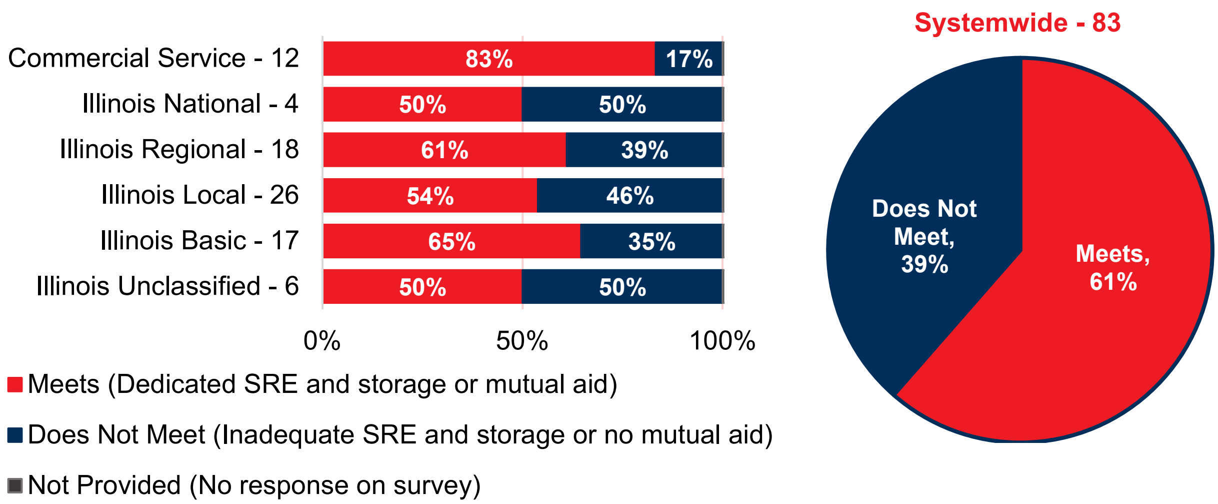
- Blowers
- Tractors
- Plows
- Brooms

Airports with dedicated equipment were then asked if they have dedicated storage space for their SRE. If airports responded that they did not have adequate equipment or storage, they were asked if they have a mutual aid agreement in place to assist with snow removal at the airport.

Existing Conditions

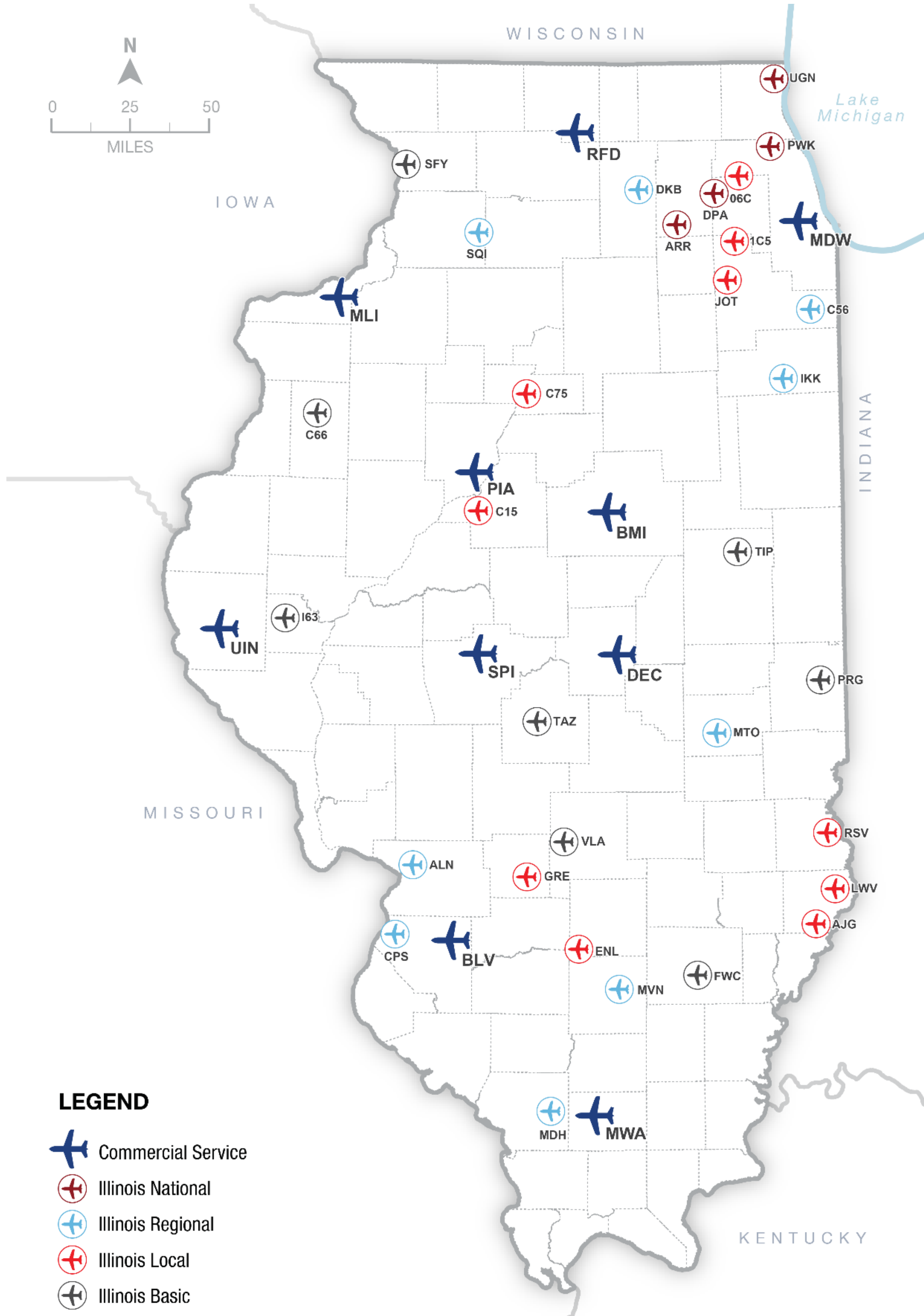
Airports meet this PM if they reported having adequate SRE (at least a plow and either blowers or brooms) and dedicated storage or if they have a mutual aid agreement to conduct snow removal. Systemwide, 61 percent of airports meet the adequate SRE or mutual aid agreement PM because they either have SRE and adequate storage or a mutual aid agreement to assist with snow removal, as presented in **Figure 3.66**. Eighty-three percent of Commercial Service, 50 percent of Illinois National, 61 percent of Illinois Regional, 54 percent of Illinois Local, 65 percent of Illinois Basic, and 50 percent of Illinois Unclassified airports meet this PM. **Figure 3.67** the IASP airports with dedicated SRE with a dedicated storage building or mutual aid agreement to conduct snow removal.

Figure 3.66. Percent of Airports with Dedicated SRE, with a Storage Building for the SRE, or Mutual Aid Agreement – Including In-Kind from Sponsor for Snow Removal



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.67. Airports with Dedicated SRE and a Storage Building, or Mutual Aid Agreement for Snow Removal



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.26**, the future performance target for this PM is set at 100 percent for all airports. At a minimum, airports should strive to have either a snowplow, or snow blowers, and/or brooms, depending on the size of the airport, number of operations, and their operational capabilities in winter months. In addition to having SRE, a dedicated SRE storage building is needed to properly maintain equipment and extend the equipment's useful life, as well as preserve an airport's, IDOT's, and/or the FAA's investment in the equipment. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.26. Percent of Airports by Classification with Dedicated SRE, a Storage Building for the SRE, or Mutual Aid Agreement – Including In-Kind from Sponsor for Snow Removal – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	83%	100%
Illinois National - 4	50%	100%
Illinois Regional - 18	50%	100%
Illinois Local - 26	50%	100%
Illinois Basic - 17	65%	100%
Illinois Unclassified - 6	50%	100%
Systemwide - 83	**58%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

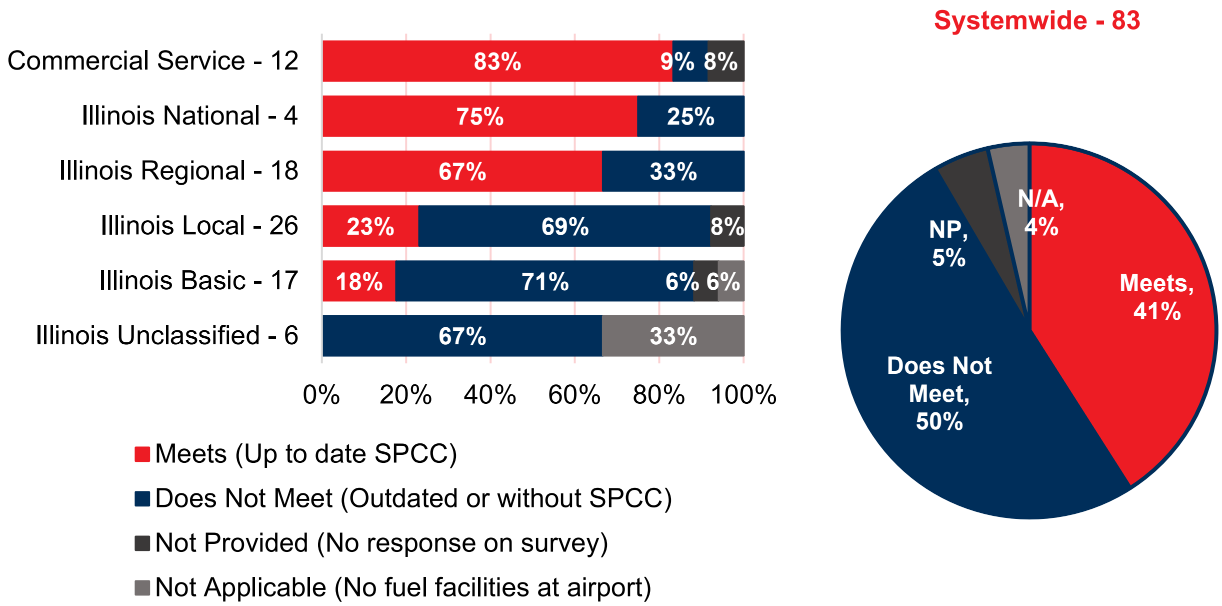
Percent of Airports with Up-to-Date Spill Prevention Plans

A spill prevention plan is related to the Spill Prevention Control and Countermeasure (SPCC) program established by the U.S. Environmental Protection Agency (EPA). The program and related spill prevention plans help to prevent or reduce the discharge of oil and other toxic substances into nearby navigable bodies of water, such as lakes, rivers, and streams. Spill prevention plans are important at airports due to the high volume of petroleum products that are regularly handled. Spill prevention plans or programs are particularly vital at commercial service and busier GA airports. The airport owner or operator is responsible for ensuring the spill prevention plan is up-to-date and professionally certified. It is important to keep spill prevention plans up to date so that they cover any changes to conditions that may have occurred since the last update. For example, if an underground storage tank is removed, then that would need to be reflected in an updated spill prevention plan.

Existing Conditions

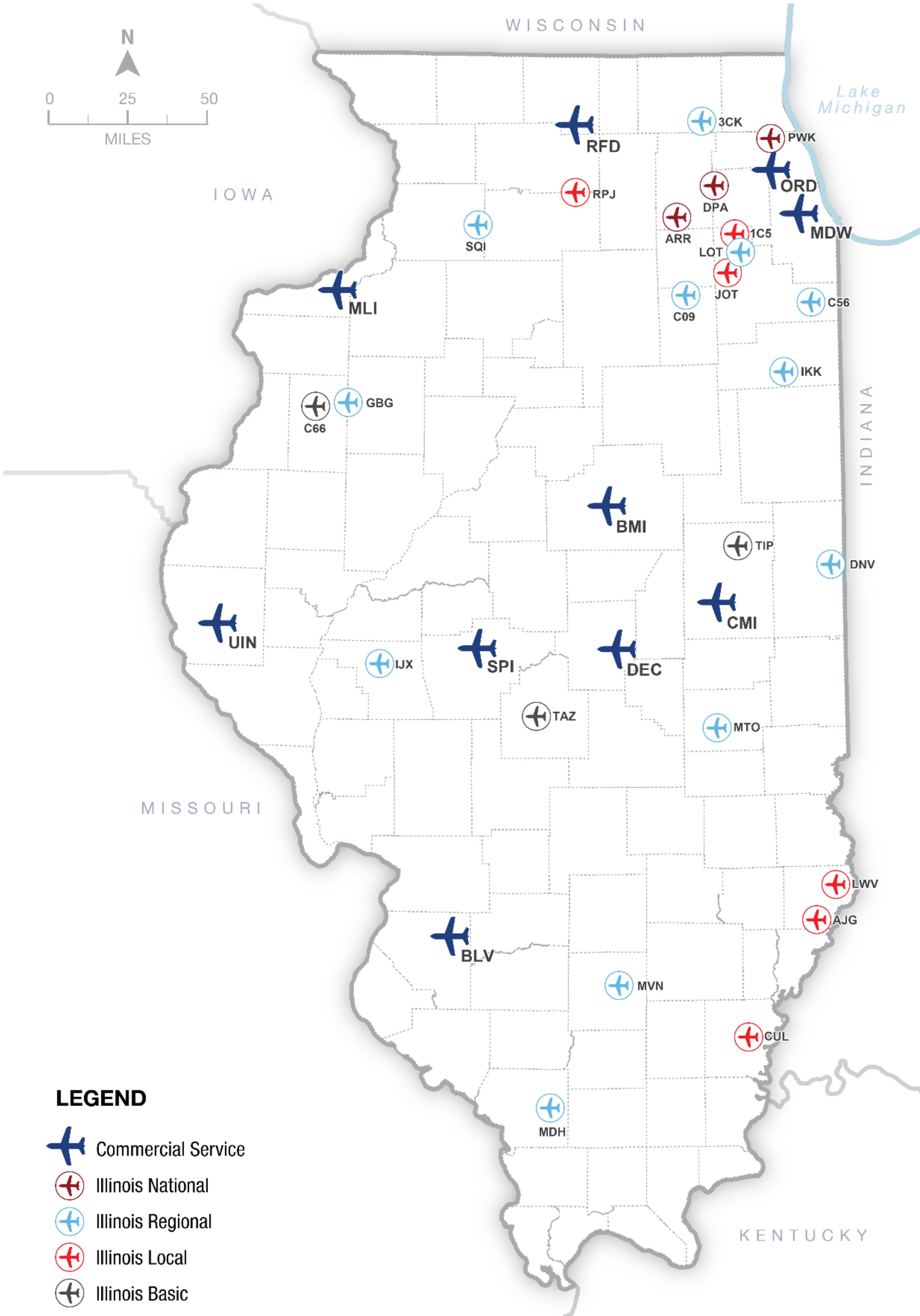
Airports were asked if they have an up-to-date spill prevention plan on file. Spill prevention plans were considered up to date if they were dated from 2010 and beyond. Systemwide, 41 percent of airports meet the spill prevention plan PM because they have up-to-date spill prevention plans, as presented in **Figure 3.68**. Eighty-three percent of Commercial Service, 75 percent of Illinois National, 67 percent of Illinois Regional, 23 percent of Illinois Local, and 18 percent of Illinois Basic airports meet this PM. None of the applicable Illinois Unclassified airports reported having an up-to-date spill prevention plan. Three airports do not provide fuel facilities at their airport which means that they do not need to develop spill prevention plans, resulting in four percent of the system being considered "Not Applicable (N/A)." Four airports did not respond to this question on the IASP Inventory Form, resulting in five percent of the system being considered "Not Provided (NP)." **Figure 3.69** depicts the IASP airports with up-to-date spill prevent plans.

Figure 3.68. Percent of Airports with Up-to-Date Spill Prevention Plans



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.69. Airports with Up-to-Date Spill Prevention Plans



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.27**, the future performance target for this PM is set at 100 percent for all airports except Illinois Unclassified airports. Targets were set based on fuel availability, i.e., all airports providing fuel should have up-to-date spill prevention plans. Based on FSOs, Illinois Unclassified airports are the only airports without fuel recommendations. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.27. Percent of Airports by Classification with Up-to-Date Spill Prevention Plans – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	83%	100%
Illinois National - 4	75%	100%
Illinois Regional - 18	67%	100%
Illinois Local - 26	23%	100%
Illinois Basic - 17	18%	100%
Illinois Unclassified - 6	67%	Not a Target
Systemwide - 83	**41%**	**93%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Goal #4 – Illinois Airport System Needs Summary

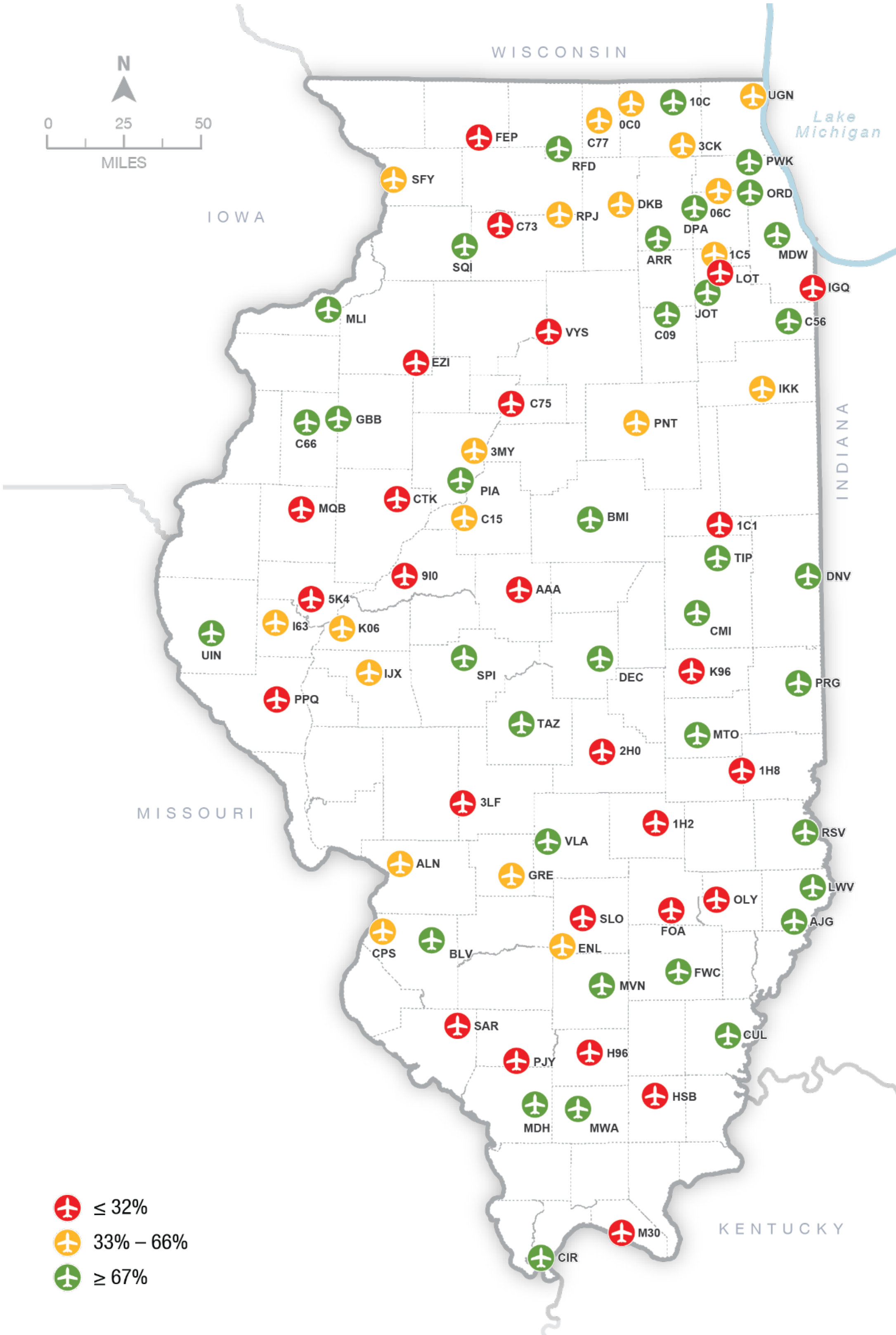
The following section summarizes and illustrates systemwide performance related to Goal #4 analyses. **Table 3.28** below describes the components of **Figure 3.70**. Of the 83 system airports, 27 are red, 20 are yellow, and 36 are green.

Table 3.28. Illinois Airport System Needs Summary – Goal #4

Icon	Description	Number of Airports
	Achieves one out of four PMs in Goal #2 (≤32%)	27
	Achieves two out of four PMs in Goal #2 (33%-66%)	20
	Achieves three or four out of five PMs in Goal #2 (≥67%)	36

Source: Kimley-Horn, 2021

Figure 3.70. Goal #4 – Airport Needs Summary Map



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

3.4.4.2. Performance Indicators

This section presents the findings of the singular PI associated with Goal 4: Resiliency. It should be noted that PIs are not are not accompanied by future performance targets because IDOT does not have the direct ability to improve performance. The PI for this goal is:

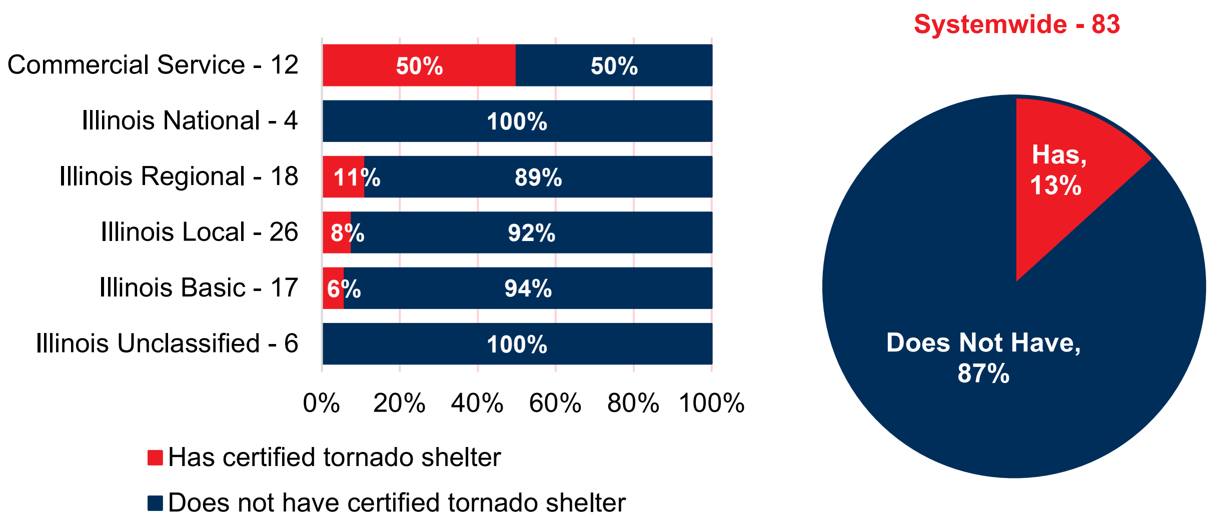
- Percent of airports with certified tornado shelters

Percent of Airports with Certified Tornado Shelters

Tornados pose a serious risk to people and property and are fairly common in Illinois. Illinois experiences an average of 64 tornados a year, with tornados occurring more frequently between March and May.[14] Tornado shelters are specifically designed to withstand the high winds and flying debris associated with tornado activity. Due to the sudden formation of tornados, it can be difficult to find a viable shelter in time to escape harm's way. Having a tornado shelter on airport property, particularly at airports that experience moderate to high passenger traffic, is an important component of on-airport safety and resiliency.

Airports were asked if they have a certified tornado shelter on airport property. Systemwide, 13 percent of airports report having a certified tornado shelter on airport property, as presented in **Figure 3.71**. Fifty percent of Commercial Service, 11 percent of Illinois Regional, eight percent of Illinois Local, and six percent of Illinois Basic airports have a certified tornado shelter. None of the Illinois National or Illinois Unclassified airports have a tornado shelter.

Figure 3.71. Percent of Airports with Certified Tornado Shelters



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

[14] Angel, Jim, *Tornadoes in Illinois – An Introduction,* State Climatologist Office for Illinois, Accessed November 2020

3.4.5. Goal 5: Stewardship

The IASP Stewardship Goal is established to safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois's transportation system. The PMs and PIs associated with this goal evaluate different ways airports are supporting business development, generating revenue streams, and maintaining components of their critical infrastructure.

3.4.5.1. Performance Measures and Future Performance Targets

This section presents the findings of the PMs associated with Goal 5: Stewardship as well as establishes future performance targets to determine gaps and/or deficiencies in facilities or services at IASP airports. The PMs for this goal are:

- Percent of airports with a primary runway PCI of 70 or greater
- Percent of airports with a primary taxiway PCI of 70 or greater
- Percent of airports with strategic plans or business plans
- Percent of airports with current rules, regulations, and minimum standards

Percent of Airports with a Primary Runway PCI of 70 or Greater

Airfield pavement is one of the most critical assets of an airport, and it is a significant investment for airports to keep their pavements maintained and in adequate condition for safe and efficient operations. Pavement condition is measured on a scale of 1-100, with 100 being perfect condition, and the score the pavement receives is referred to as the Pavement Condition Index (PCI). Runway pavement is generally considered in satisfactory or better condition if it has a PCI of 70 or greater. **Table 3.29** shows the industry accepted breakdown of PCI values and corresponding pavement condition.

Table 3.29. Pavement Condition Index Chart

PCI	Condition
85-100	Good
70-84	Satisfactory
55-69	Fair
40-54	Poor
25-39	Very Poor
10-24	Serious
0-9	Failed

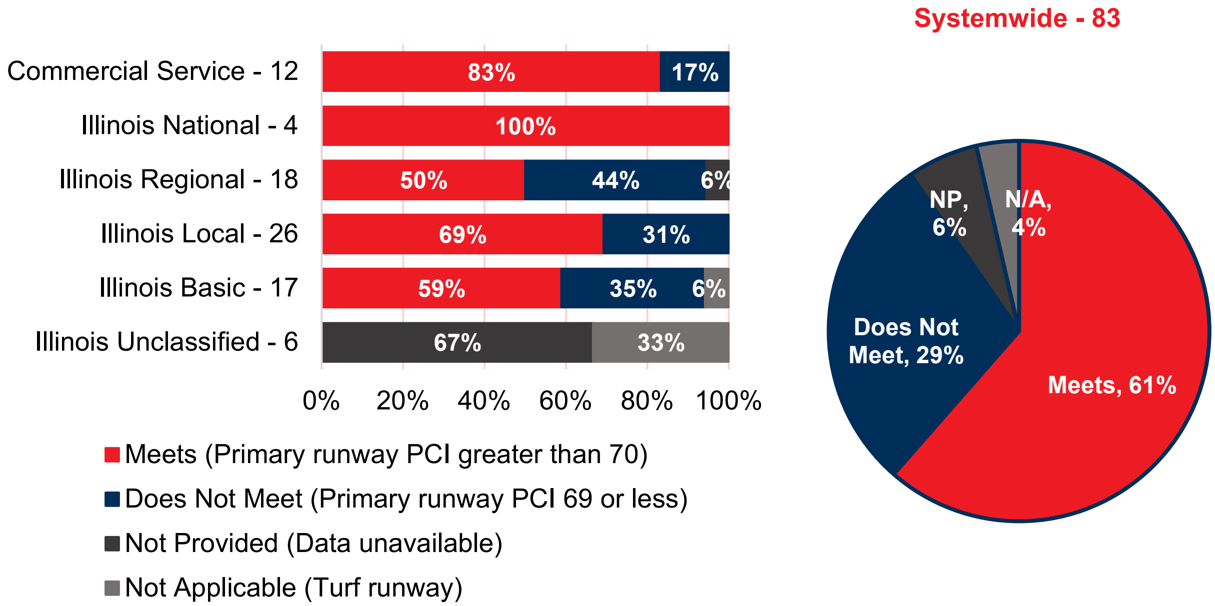
Source: FAA PaveAir, 2020

It is important to monitor runway PCI because its condition will inform project recommendations and prioritization. Minor pavement deterioration may be resolved with varying maintenance projects, whereas significant deterioration may require a complete pavement reconstruction project. Generally, it is more cost effective to stay up to date on pavement maintenance over time than it is to let the pavement deteriorate to a PCI of 40 or below, which may require more costly reconstruction projects.

Existing Conditions

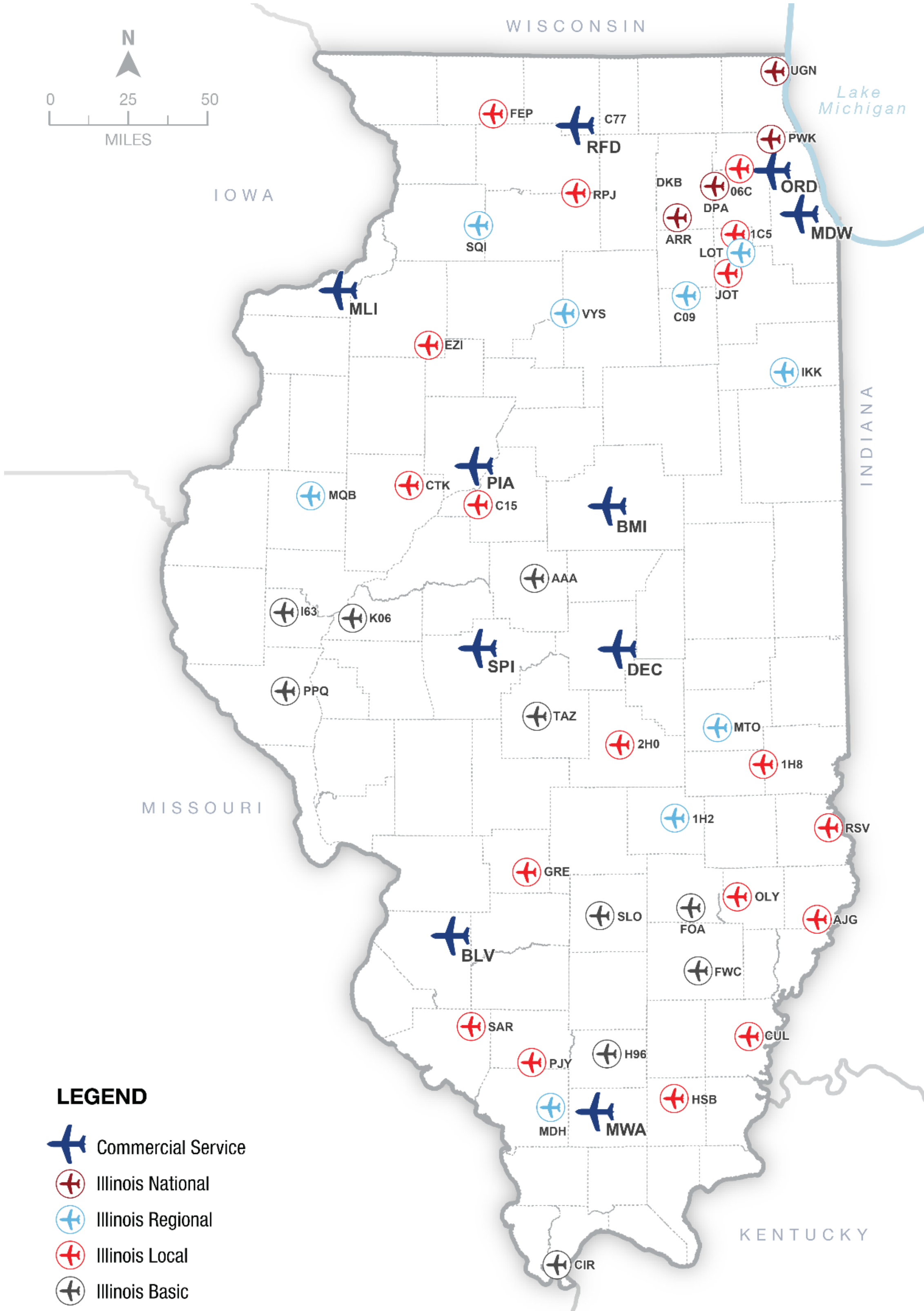
PCI data was gathered at the airport level from an online database provided by IDOT Aeronautics. Systemwide, 61 percent of airports meet the primary runway PCI PM because they have a primary runway PCI of 70 of greater, as presented in **Figure 3.72**. Eighty-three percent of Commercial Service, all Illinois National, 50 percent of Illinois Regional, 69 percent of Illinois Local, and 59 percent of Illinois Basic airports have a primary runway PCI of 70 or greater. Three airports have turf primary runways, resulting in four percent of the system being considered "Not Applicable (N/A)." Four other system airports did not respond to this question on IASP Inventory Form and data was not available from other sources, resulting in five percent of the system being considered "Not Provided (NP)." **Figure 3.73** depicts the IASP airports with a primary runway PCI of 70 or greater.

Figure 3.72. Percent of Airports with a Primary Runway PCI of 70 or Greater



Sources: IDOT PCI Database, 2020, IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.73. Airports with a Primary Runway PCI of 70 or Greater



Sources: ArcGIS; IDOT PCI Database, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.30**, the future performance target for this PM is set at 100 percent for all paved airports. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.30. Percent of Airports by Classification with Primary Runway PCI of 70 or Greater – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	83%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	50%	100%
Illinois Local - 26	69%	100%
Illinois Basic - 17	59%	100%
Illinois Unclassified - 6	NP/NA	67%
Systemwide - 83	**61%**	**98%**

Note: NP indicates that PCI data was unavailable, NA indicates a turf runway
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

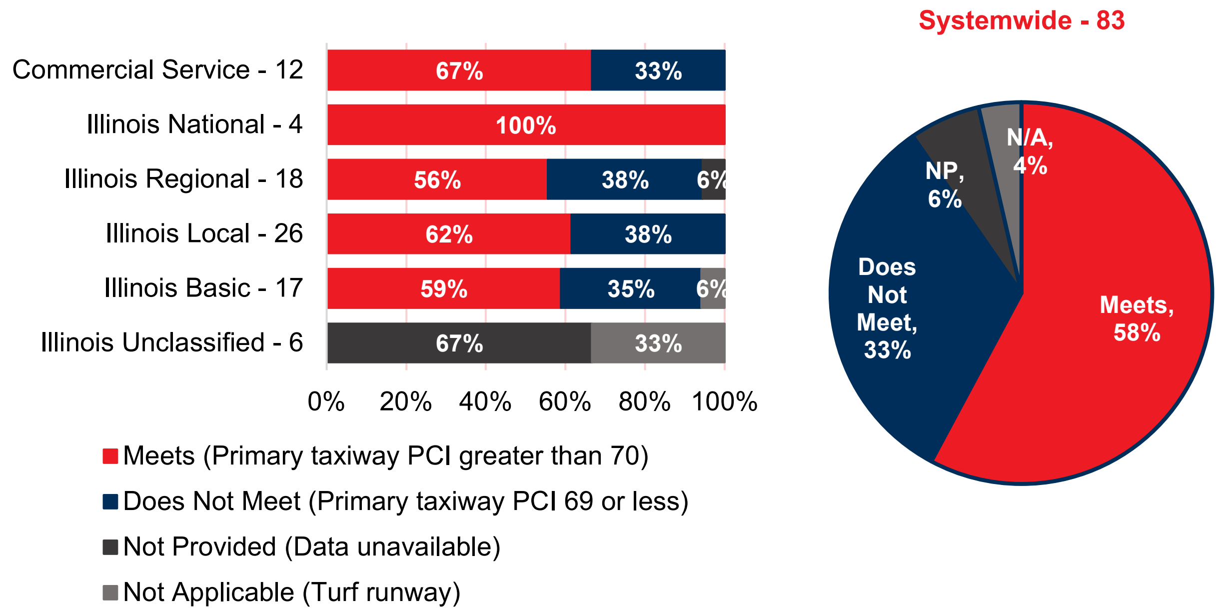
Percent of Airports with a Primary Taxiway PCI of 70 or Greater

Maintaining taxiway pavement ensures aircraft are able to traverse the airport environment without the risk of damage. Similar to runways, taxiway pavement maintained at or above a PCI of 70 ensures that the pavement is adequate enough to support operations and requires only preventive maintenance which keeps long term pavement costs lower.

Existing Conditions

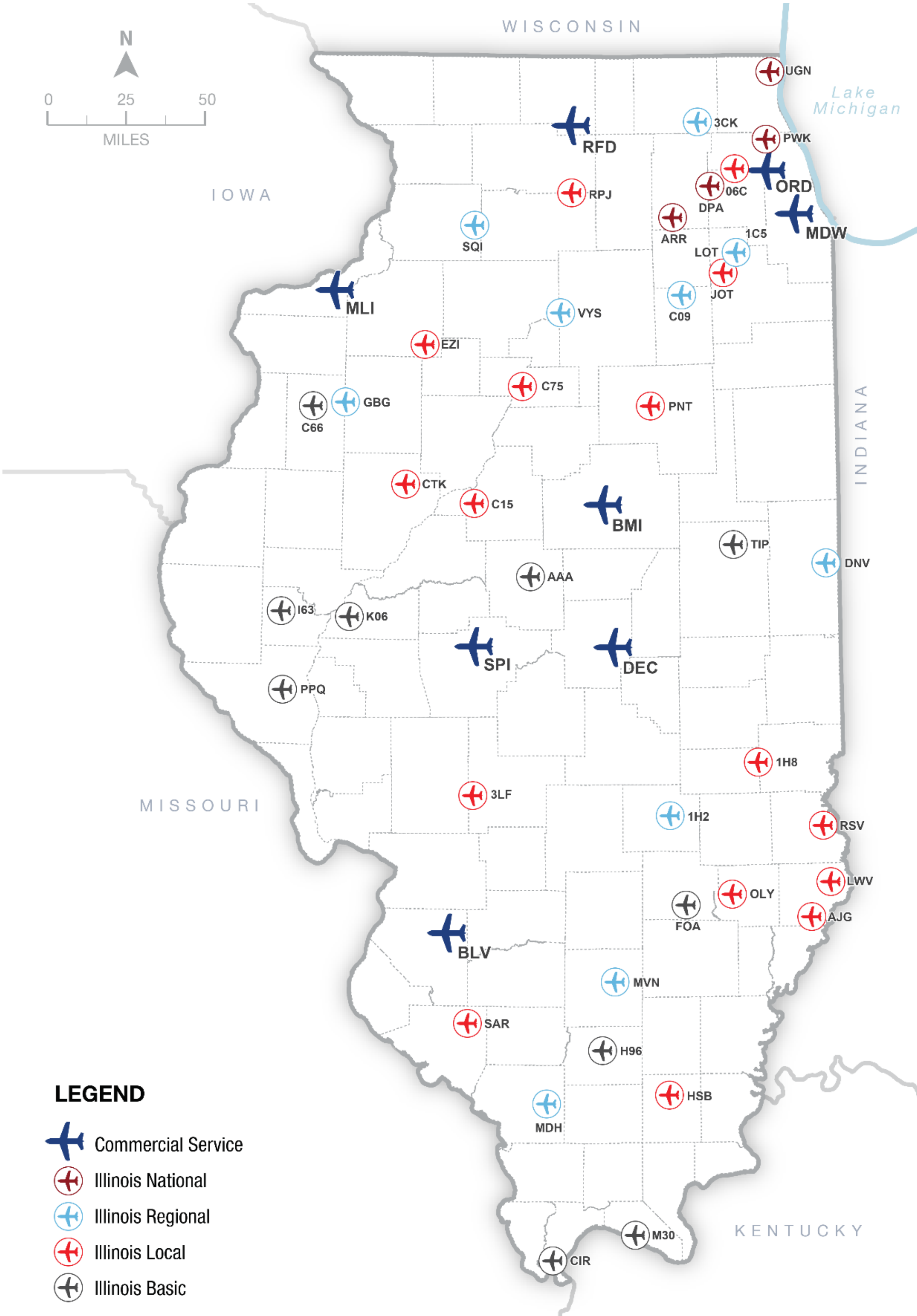
PCI data was gathered at the airport level from an online database provided by IDOT Aeronautics. Systemwide, 58 percent of airports meet the primary taxiway PCI PM because they have a primary taxiway with a PCI of 70 or greater, as presented in **Figure 3.74**. Sixty-seven percent of Commercial Service, 100 percent of Illinois National, 56 percent of Illinois Regional, 62 percent of Illinois Local, and 59 percent of Illinois Basic airports meet this PM. Three airports have turf primary runways, resulting in four percent of the system being considered “Not Applicable (N/A).” Four other system airports did not respond to this question on IASP Inventory Form and data was not available from other sources, resulting in five percent of the system being considered “Not Provided (NP).” **Figure 3.75** depicts the IASP airports that have a primary taxiway PCI of 70 or greater.

Figure 3.74. Percent of Airports with a Primary Taxiway PCI of 70 of Greater



Sources: IDOT PCI Database, 2020, IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.75. Airports with a Primary Taxiway PCI of 70 or Greater



Sources: ArcGIS; IDOT PCI Database, 2020; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.31**, the future performance target for this PM is set at 100 percent for all paved airports. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.31. Percent of Airports by Classification with Primary Taxiway PCI of 70 or Greater – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	67%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	56%	100%
Illinois Local - 26	62%	100%
Illinois Basic - 17	59%	100%
Illinois Unclassified - 6	NP/NA	67%
Systemwide - 83	**58%**	**100%**

Note: NP indicates that PCI data was unavailable and NA indicates a turf runway

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

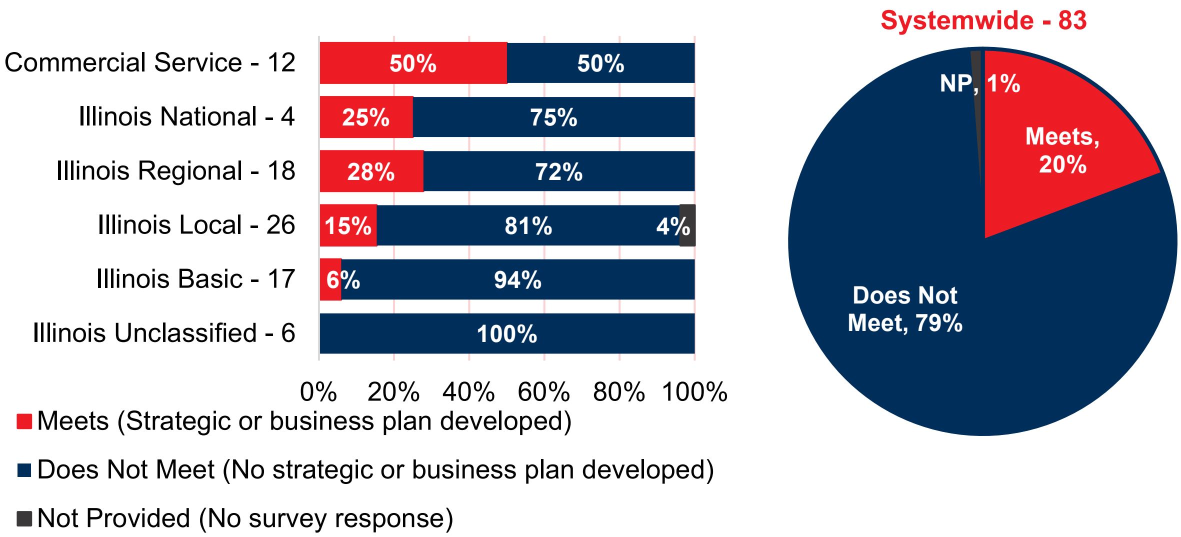
Percent of Airports with Strategic Plans or Business Plans

A strategic plan or business plan can be a great asset to an airport as it provides an outline for how to grow in the short-, mid-, and long-term. Strategic or business plans may focus on different ways the airport can generate or increase their revenue and develop performance metrics to determine a benchmark and monitor changes over time. Business or strategic plans are one step an airport can make to support growth, development, and economic activity at their airport.

Existing Conditions

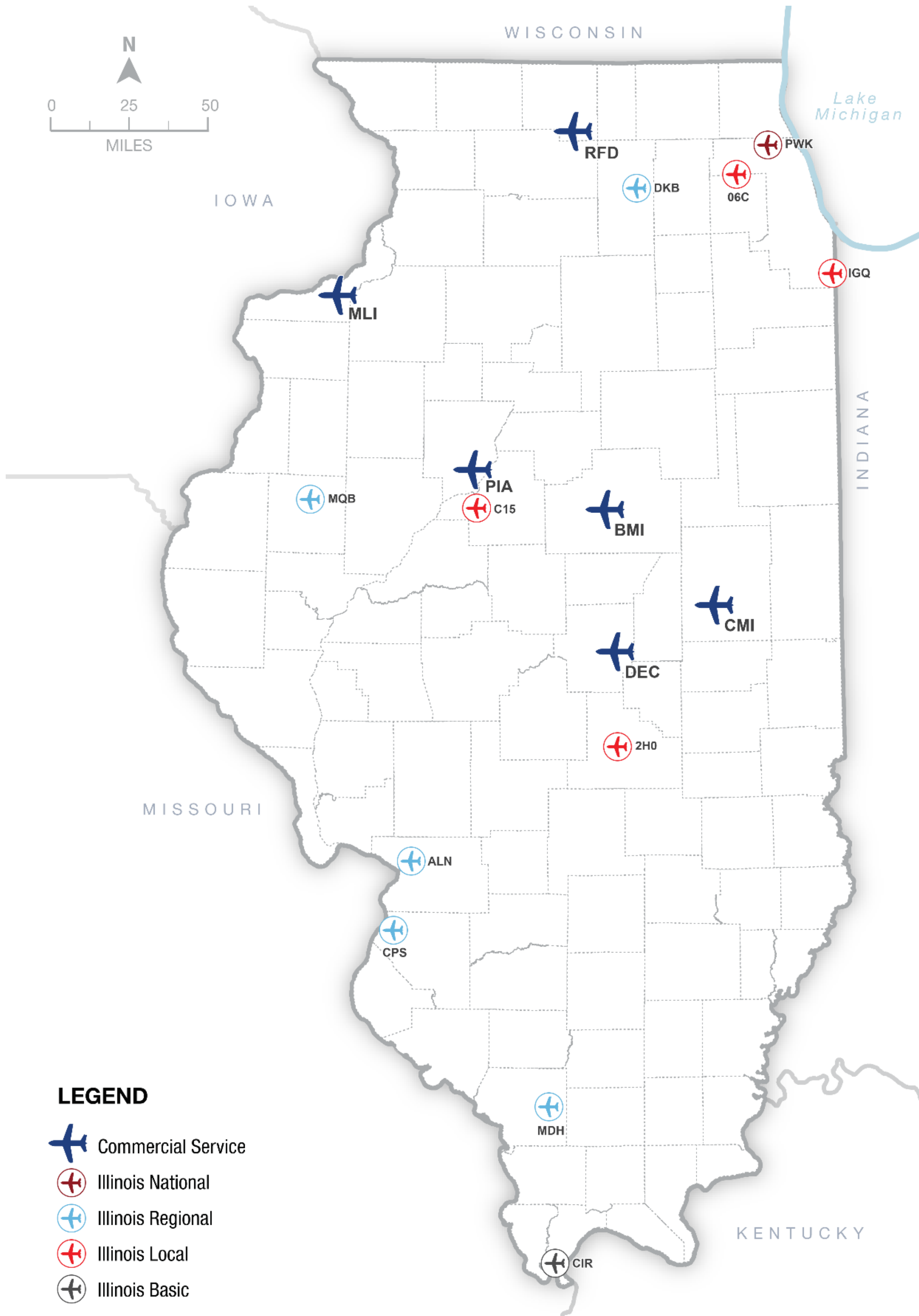
Airports were asked if they have developed a strategic or business plan. Systemwide, 20 percent of airports meet the strategic or business plan PM because they have developed a strategic plan or business plan, as presented in **Figure 3.76**. Fifty percent of Commercial Service, 25 percent of Illinois National, 28 percent of Illinois Regional, 15 percent of Illinois Local, and six percent of Illinois Basic airports meet this PM. None of the Illinois Unclassified airports reported having a strategic or business plan. One system airport did not respond to this question on the survey, resulting in one percent of the system being considered “Not Provided (NP).” **Figure 3.77** depicts the IASP airports with strategic plans or business plans.

Figure 3.76. Percent of Airports with Strategic Plans or Business Plans



Sources: IDOT PCI Database, 2020, IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.77. Airports with Strategic Plans or Business Plans



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.32**, the future performance target for this PM is set at “as needed” for all IASP airports. Strategic and/or business plans are developed as airports deem necessary. IDOT should work with IASP airports to develop strategic/business plans as demand necessitates on an airport-by-airport basis.

Table 3.32. Percent of Airports by Classification with Strategic Plans and/or Business Plans – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service - 12	50%	As needed
Illinois National - 4	25%	As needed
Illinois Regional - 18	22%	As needed
Illinois Local - 26	15%	As needed
Illinois Basic - 17	6%	As needed
Illinois Unclassified - 6	0%	As needed
Systemwide - 83	**19%**	**As needed**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

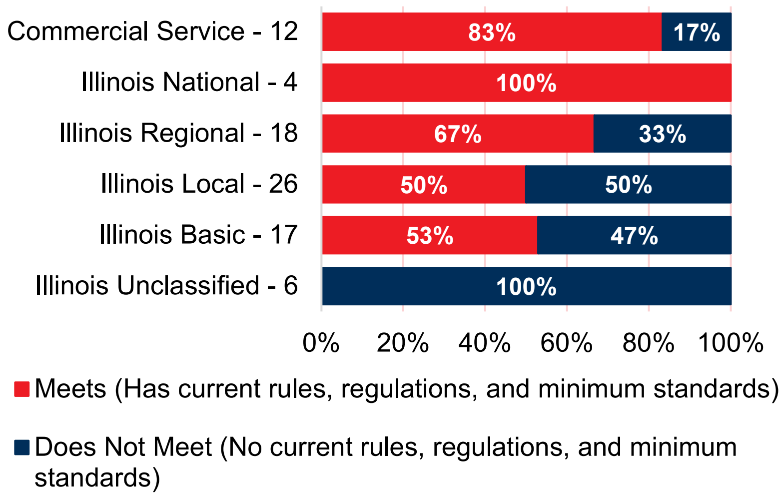
Percent of Airports with Current Rules, Regulations, and Minimum Standards

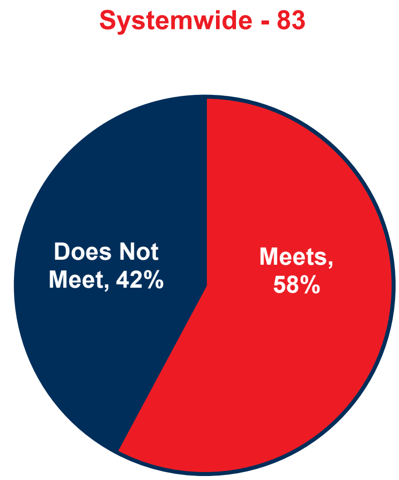
Rules, regulations, and minimum standards are enacted by airports to ensure the safety of all airport users. These guidelines can cover a wide array of factors including aircraft operation limitations, restricted areas on the airport, the use of cars on the airfield, and more. The implementation of strict guidelines allows airport officials to govern the operations at the airport and prevent or reduce any activity that may lead to a serious liability. It is the responsibility of the FAA Airports District Office and Regional Airport Divisions to advise sponsors on the suitability of proposed standards.

Existing Conditions

Airports were asked if they have current rules, regulations, and minimum standards. Systemwide, 58 percent of airports meet the rules, regulations and minimum standards PM because they have current rules, regulations, and minimum standards in place, as presented in **Figure 3.78**. Eighty-three percent of Commercial Service, all Illinois National, 67 percent of Illinois Regional, 50 percent of Illinois Local, and 53 percent of Illinois Basic airports meet this PM. None of the Illinois Unclassified airports reported having current rules, regulations, and minimum standards. **Figure 3.79** depicts the IASP airports with current rules, regulations, and minimum standards.

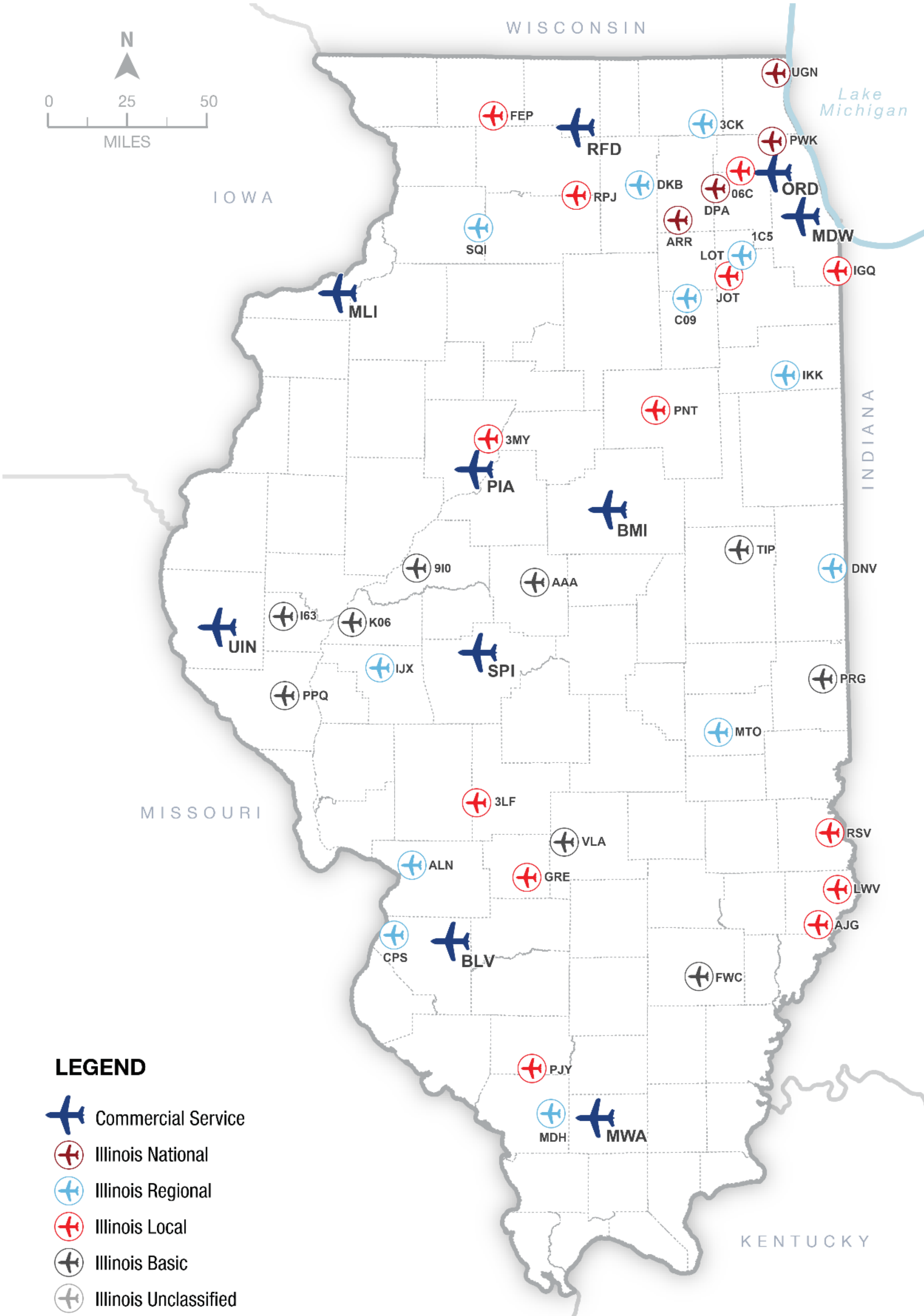
Figure 3.78. Percent of Airports with Current Rules, Regulations, and Minimum Standards





Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 3.79. Airports with Current Rules, Regulations, and Minimum Standards



Sources: ArcGIS; IASP Inventory Form 2020; Kimley-Horn, 2020

Future Targets

As shown in **Table 3.33**, the future performance target for this PM is set at 100 percent for all airports. IDOT should work with IASP airports not currently meeting the PM to improve identified system deficiencies.

Table 3.33. Percent of Airports by Classification with Current Rules, Regulations, and Minimum Standards – Future Performance Targets

Airport Classification	Current Performance	Future Performance Target
Commercial Service – 12	83%	100%
Illinois National - 4	100%	100%
Illinois Regional - 18	67%	100%
Illinois Local - 26	50%	100%
Illinois Basic - 17	53%	100%
Illinois Unclassified - 6	0%	100%
Systemwide - 83	**58%**	**100%**

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

Goal #5 – Illinois Airport System Needs Summary

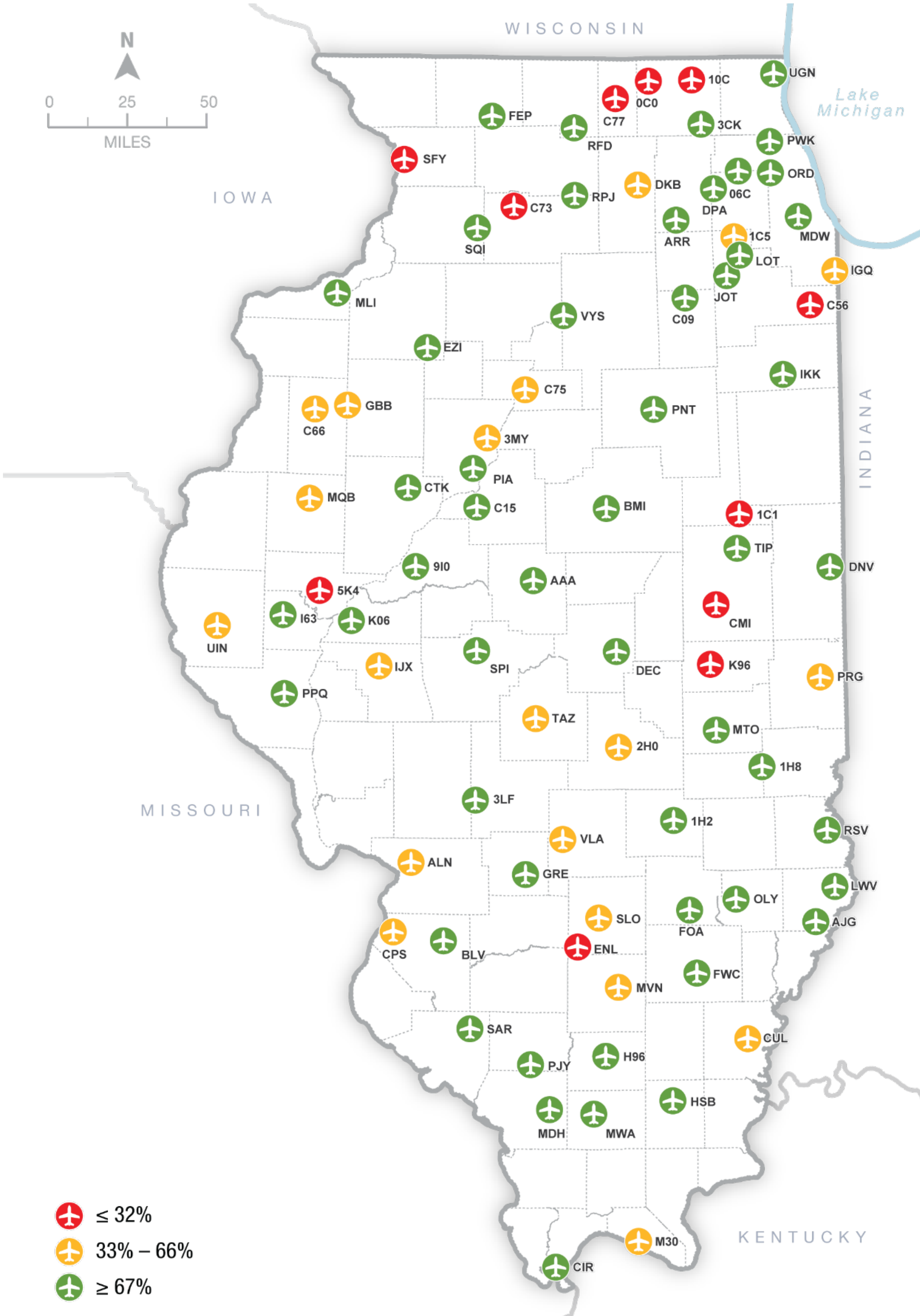
The following section summarizes and illustrates systemwide performance related to Goal #5 analyses. **Table 3.34** below describes the components of **Figure 3.80**. Of the 83 system airports, 11 are red, 20 are yellow, and 52 are green.

Table 3.34. Illinois Airport System Needs Summary – Goal #5

Icon	Description	Number of Airports
	Achieves one out of four PMs in Goal #2 (≤32%)	11
	Achieves two out of four PMs in Goal #2 (33%-66%)	20
	Achieves three or four out of five PMs in Goal #2 (≥67%)	52

Source: Kimley-Horn, 2021

Figure 3.80. Goal #5 – Airport Needs Summary Map



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

3.4.5.2. Performance Indicators

This section presents the findings of the PIs associated with Goal 5: Stewardship. It should be noted that PIs are not are not accompanied by future performance targets because IDOT does not have the direct ability to improve performance. The PIs for this goal are:

- Percent of airports with expansion/development potential (land availability and utility connections)
- Percent of airports with documentable hangar needs of defined styles (T-hangars and box hangars)
- Percent of airports meeting minimum facility and service objectives

Percent of Airports with Expansion/Development Potential (Land Availability and Utility Connections)

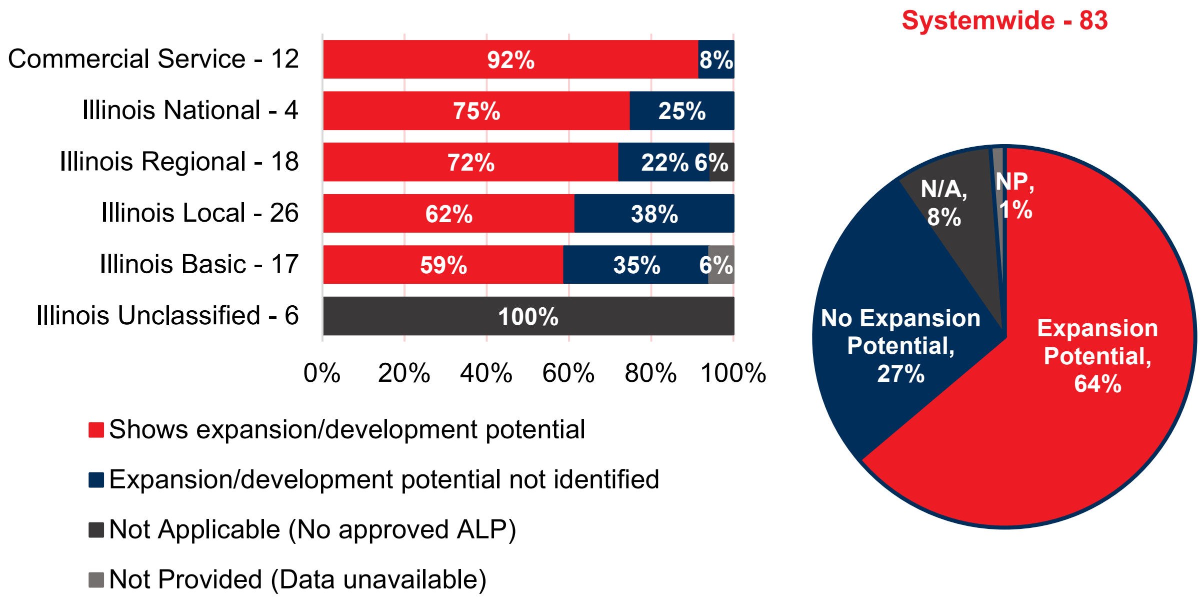
Available land and utility connections at an airport contribute to the airport's growth potential. Available land can be used for a variety of compatible land use developments, such as commercial office space, light industry, manufacturing, as well as solar or farming initiatives. Leasing available land for compatible developments is one way that an airport can generate revenue and become a key asset in the community, and it prevents development of the land for incompatible uses. Moreover, airports may opt to build more hangars, or expand their airport facilities to better align with future demand and to help generate on-airport revenue. It is important to consider what utility connections are already established on the available land to better understand what types of developments can be compatible with the plot. Land with utility connections is more build-ready and there are fewer initial steps required to begin development on the land. Additionally, having to establish utility connections can be cost prohibitive or impossible due to existing conditions.

To assess this PI, airports were asked if their ALP shows available land for expansion or development, and were asked if that land has any of the following utility connections:

- Water
- Gas
- Electricity
- Sewer

Airports must have available land identified on their ALP and at least one utility connection for that available land to meet the criteria associated with this PI. Systemwide, 64 percent of airports have land identified on their ALP and at least one utility connection for that land, as presented in **Figure 3.81**. Ninety-two percent of Commercial Service,75 percent of Illinois National, 72 percent of Illinois Regional, 62 percent of Illinois Local, and 59 percent of Illinois Basic airports have land identified on the ALP and at least one utility connection for that that land. Seven system airports do not have an approved ALP, resulting in eight percent of the system being considered "Not Applicable (N/A)." One system airport did not respond to this question on the IASP Inventory Form, resulting in one percent of the system being considered "Not Provided (NP)."

Figure 3.81. Percent of Airports with Expansion/Development Potential



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

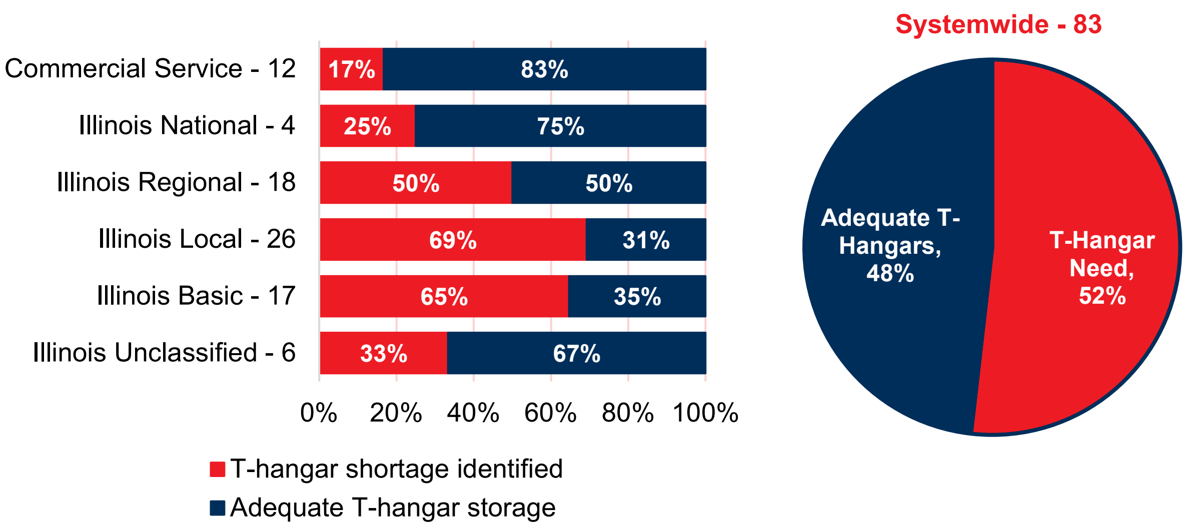
Percent of Airports with Documentable Hangar Needs of Defined Styles (T-Hangar Vs. Corporate/Box)

One of the ways that an airport can generate revenue is by leasing out covered aircraft storage, such as hangars, to aircraft owners. Hangars provide protection from weather and other harmful elements that can contribute to aircraft deterioration. There are two main types of hangars available at airports, T-hangars and box hangars. A T-hangar is typically constructed out of metal and built to resemble the letter "T", and pilots will reverse their aircraft into the space so that the wings of the aircraft align with the top of the "T" configuration. A box hangar is one large structure that can store multiple aircraft at a time. There are no separate spaces for aircraft within a box hangar, instead aircraft are strategically parked within the hangar to maximize available space. Box hangars are generally a more expensive option to rent, and are typically used by people with multiple aircraft, or businesses with corporate aircraft. Box hangars may even include room for office space, restrooms, or other amenities. It is important to monitor aircraft storage availability because if there is a shortage, or a waitlist, for covered aircraft parking the airport may look into acquiring additional storage space to accommodate demand.

T-Hangars

Airports were asked if there is a documentable T-hangar or box hangar shortage at their airport, which would indicate if there is a need for more covered aircraft storage. Systemwide, 52 percent of airports indicated they have a T-hangar shortage, as presented in **Figure 3.82**. Seventeen percent of Commercial Service, 25 percent of Illinois National, 50 percent of Illinois Regional, 69 percent of Illinois Local, 65 percent of Illinois Basic, and 33 percent of Illinois Unclassified airports have a T-hangar shortage.

Figure 3.82. Percent of Airports with a Documentable T-Hangar Need

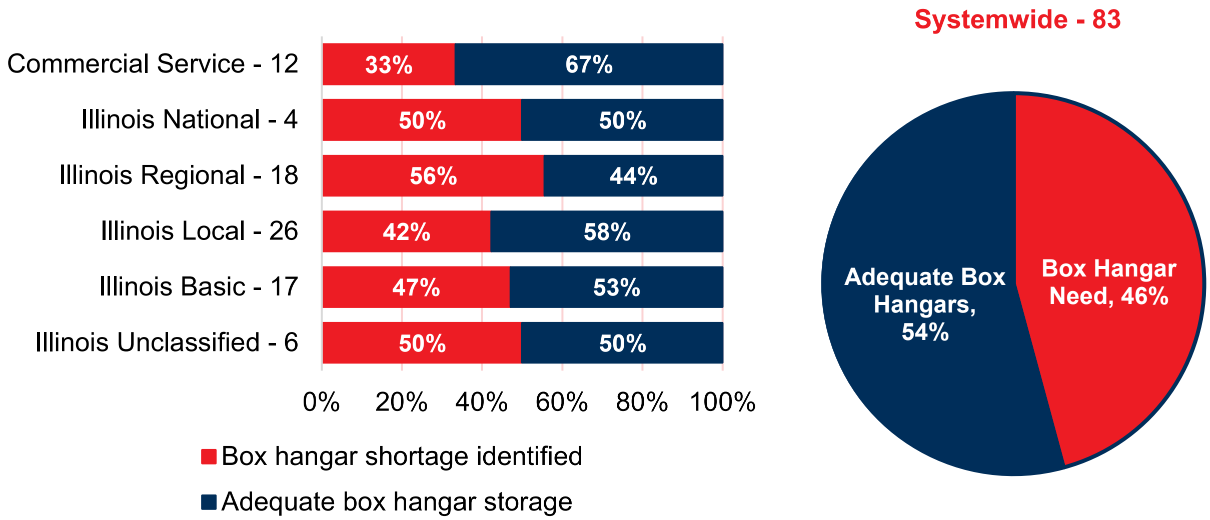


Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Corporate or Box Hangars

Systemwide, 46 percent of airports indicated they have a box hangar shortage, as presented in **Figure 3.83**. Thirty-three percent of Commercial Service, 50 percent of Illinois National, 56 percent of Illinois Regional, 42 percent of Illinois Local, 47 percent of Illinois Basic, and 50 percent of Illinois Unclassified having a box-hangar shortage.

Figure 3.83. Percent of Airports with a Documentable Box Hangar Need



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

3.4.6. Illinois Airport System Needs – Summary of Goals

The following section summarizes the results across each goal to identify where airports performed the highest compared to where they performed the lowest. **Table 3.35** below describes the components of **Figure 3.84**. Of the 83 system airports, three are red, 56 are yellow, and 24 are green.

Table 3.35. Illinois Airport System Needs – All Goal Summary

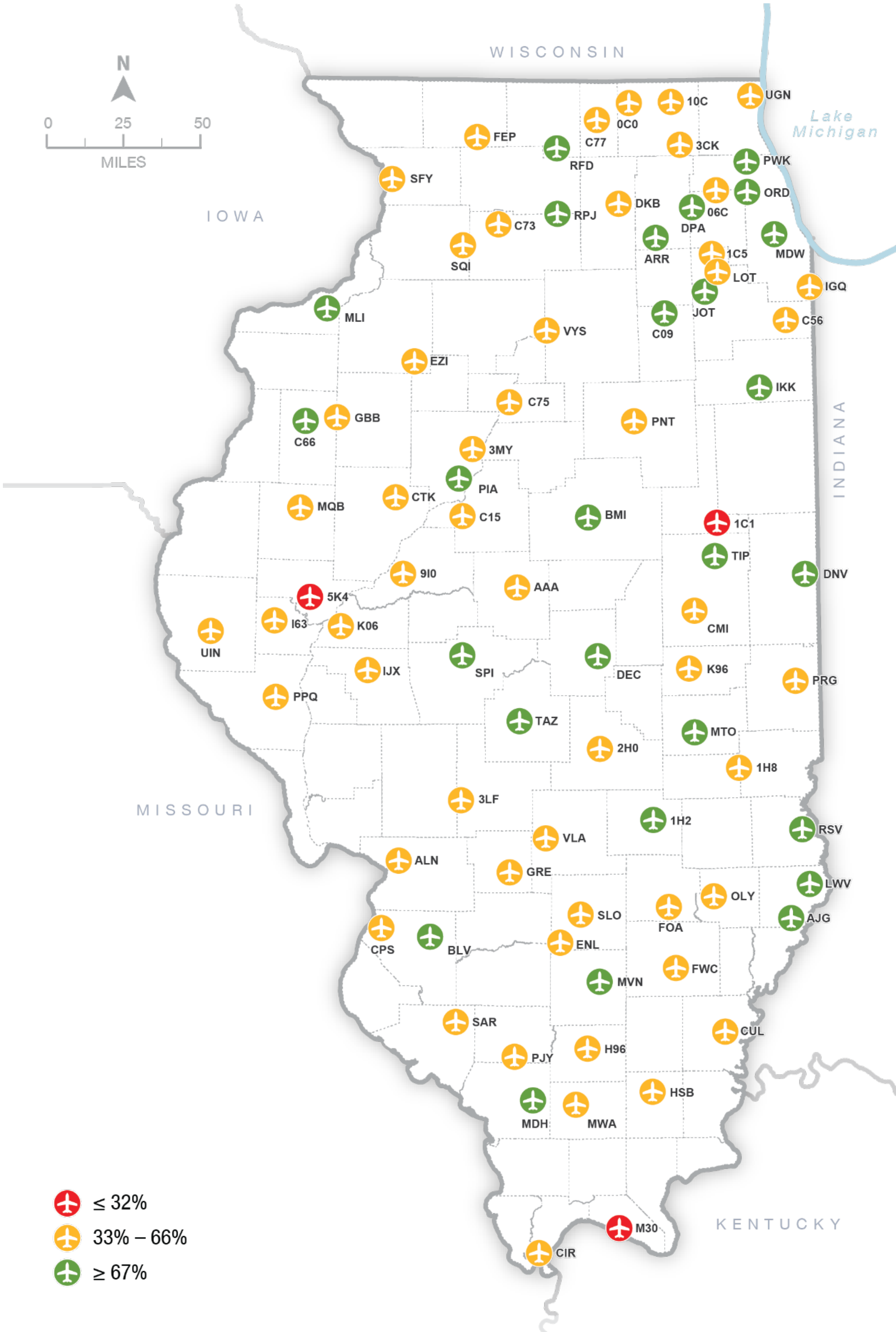
Icon	Description	Number of Airports
	Achieves ≤32% of all IASP PMs	3
	Achieves between 33%-66% of all IASP PMs	56
	Achieves ≥67% of all IASP PMs	24

Source: Kimley-Horn, 2021

IASP airports performed best in Goal #3 with 58 airports achieving ≥67 percent of PMs. IASP airport performed worse in Goal #2 with 40 airports achieving ≤32 percent of PMs. IDOT Aeronautics could prioritize funding efforts on projects that improve facilities and services that performed the worst in IASP analyses (Goal #2).

ILLINOIS AVIATION SYSTEM PLAN

Figure 3.84. Illinois Airport System Needs – Summary of Goals



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

3.5. Facility and Service Objectives

As mentioned in **Chapter 2. Airport Classifications**, FSOs identify the recommended facilities and services that each airport should offer to effectively perform its role in the Illinois system. A set of FSOs were developed for each airport classification and they offer specific guidance on how airports can improve their abilities to support users and enhance the statewide aviation system. FSOs were established to provide the minimum recommended guidelines for infrastructure, facilities, and services required to best support the type, and volume of aviation activity associated with Illinois airport system classifications. Similar to PMs, FSOs can also result in IASP recommendations.

It is important to note that these objectives are neither requirements nor mandates and rather serve as guidelines for airports and IDOT Aeronautics to use during the airport planning process. An airport that offers facilities and services above or below these objectives can still fulfill its role based on local needs and context. However, an airport's inability to meet these objectives over time may impact future functionality of the system, and these airports may need to be reclassified to a more suitable classification in future system planning efforts. In some instances, performance is noted as "N/A" for not applicable as the corresponding FSO is not an objective for that airport's role.

Table 3.36 presents the FSOs by classification that are evaluated in the following analysis. IASP Appendix A documents the report cards for each individual airport. Following the table are definitions for each FSO.

FSOs are a unique component of the system adequacy process and are presented differently than the PMs and PIs in the previous sections. The results of the FSO analyses are presented at the airport level in **Appendix A. Airport Report Cards**.

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Table 3.36. 2020 IASP Facility and Service Objectives

Objective Category	Commercial Service	Illinois National	Illinois Regional	Illinois Local	Illinois Basic	Illinois Unclassified
Airfield						
ARC	C-III	C-II	A/B-II	A/B-II Small Aircraft	A-I/B-I	A/B-I Small Aircraft
Primary Runway Length	7,000 ft.	6,000 ft.	5,000 ft.	5,000 ft.	Maintain Existing	Maintain Existing
Primary Runway Width	150 ft.	100 ft.	75 ft.	75 ft.	60 ft.	60 ft.
Primary Runway Surface	Paved	Paved	Paved	Paved	Paved	Maintain Existing
Skid Treatment (Groove/PFC)	Yes	Yes	Yes	Yes	No	No
Taxiway	Full Parallel	Full Parallel	Full Parallel	Full Parallel	Partial Parallel	Maintain Existing
Runway Markings	Precision	Precision	Precision	Non-Precision	Basic	Maintain Existing
Approach	Precision	Precision	Precision	Non-Precision	Maintain Existing	Maintain Existing
ALS	Yes	Yes	Yes	No	No	No
Rotating Beacon	Yes	Yes	Yes	Yes	Yes	No
VGSIs	Yes	Yes	Yes	Yes	Yes	No
REILs	Yes	Yes	Yes	Yes	Yes	No
Runway Lighting	Yes	Yes	Yes	Yes	Yes	No
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes	Yes	No	No
Taxiway Lighting	Yes	Yes	Yes	Yes	Yes	No
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	Maintain Existing
Landside Facilities						
Terminal (GA)	Per ALP	Acceptable ratio of GA terminal square footage to peak hour passengers	Acceptable ratio of GA terminal square footage to peak hour passengers	Acceptable ratio of GA terminal square footage to peak hour passengers	500 sq. ft.	Maintain Existing
Snow Removal Equipment (SRE)	Yes	Yes	Yes	Through mutual aid agreement	Through mutual aid agreement	Through mutual aid agreement
Dedicated Maintenance/SRE Storage Building	Yes	Yes	Yes	Yes - if SRE available No - if SRE unavailable	Yes - if SRE available No - if SRE unavailable	Yes - if SRE available No - if SRE unavailable
Airport Service						
24-Hour Fuel Service (AvGas or Jet A)	Yes	Yes	Yes	Yes	Yes	No
Jet A Fuel	Yes	Yes	Yes	Yes	No	No
Aircraft Deicing	Yes	Yes	No	No	No	No
Pilot Area/Flight Planning Area	Yes	Yes	Yes	Yes	Yes	No

Source: Kimley-Horn, 2020

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Airfield Objectives

ARC – An airport's ARC denotes the primary runway's design code (RDC), or the specification such as runway length, width, separation distances, etc. that are critical for the safe operation of aircraft on the runway. Although the ARC is used for planning and design purposes, the FAA states that the ARC does not expressly limit the aircraft that may be able to operate safely on the airport. Due to the relationship between the ARC and an airport's primary RDC which dictates runway requirements, the ARC is included as an objective for each airport.

Primary Runway Length – The runway lengths needed at airports are determined by the type of aircraft currently operating at each facility, and other local factors such as temperature and elevation.

Primary Runway Width – Width of runway based on ARC.

Primary Runway Surface – For purposes of the IASP, runway surfaces were paved or unpaved.

Skid Treatment (Grooved PFC) – Runways with skid treatments applied, such as making the surface grooved or treated for Porous Friction Course (PFC) helps with drainage of surface water on runways and reduces potential of an aircraft skidding during take-off and landing procedures.

Taxiway – A taxiway is used by airports for entering and exiting the runway and creates a path for an aircraft to access hangars, terminals, and other facilities.

Runway Markings – Runway markings are specific to the type of approaches used at an airport.

A precision approach requires the following runway surface markings:

- Landing designator
- Centerline
- Threshold Markings
- Aiming Point
- Touchdown Zone
- Edge Markings

A non-precision approach requires the following runway surface markings:

- Landing designator
- Centerline
- Threshold Markings
- Aiming Point if the instrumented runway is 4,200 feet or longer
- Edge Markings if the full runway pavement width may not be available for use as a runway

A visual approach requires the following runway surface markings:

- Landing designator
- Centerline
- Threshold markings if the runway serves approach category C and D aircraft
- Aiming Point if the runway is 4,200 feet or longer (and serving approach category C and D aircraft)

Approach – The type of approach procedure at an airport informs the types of aircraft that can operate at that airport. Objectives for IASP airports range from Precision, to Non-Precision, and Visual Approaches.

- *Precision Approaches*: Provide lateral and vertical guidance and are supported by multiple ground-based NAVAIDs, collectively referred to as an "ILS." An ILS includes a Localizer (providing lateral guidance), a Glideslope (providing vertical guidance), and an ALS (providing close-in visual guidance).
- *Non-Precision Instrument Approaches*: Provide only lateral guidance from either ground based or satellite-based global positioning system (GPS) NAVAIDs.
- *Visual Approaches*: Conducted under Visual Meteorological Conditions (VMC), which are defined as a cloud ceiling greater than 1,000 feet above ground level (AGL) and visibility conditions equal to or greater than three statute miles. Under VMC conditions, pilots approach an airport using only visual standards or cues.

ALS – An ALS is a series of marker lights off the runway end to signal the aircraft toward the touchdown zone. Some systems include high intensity sequenced flashing lights that appear to the pilot as a ball of light traveling toward the runway.

Rotating Beacon – A rotating beacon is a lit ground device that indicates the location of an airport to a pilot. For public airports, the rotating beacon flashes green and white.

VGSI – A visual glide slope indicator (VGSI) is a lit ground device (or NAVAID) that assist pilots as they are descending for their approach.

REILs – Runway End Identifier Lights (REILs) are two lights that illuminate the end of the runway.

Runway Lighting – Runway lighting outlines the edges of a runway during low light or low visibility conditions.

Weather Reporting (ASOS/AWOS) – Automated Weather Observing System (AWOS) and Automated Surface Observing System (ASOS) provide automatic weather updates via radio channels every minute.

Taxiway Lighting – Taxiway lighting outlines the edges of a taxiway at night or during low visibility conditions.

Covered Aircraft Storage – Covered aircraft storage includes T-hangars and corporate/box hangars. The objective looks at both based and transient aircraft storage adequacy. An aircraft is considered based if it is operational and airworthy and stored at an airport for the majority of the year. An aircraft is considered transient if it is only visiting the airport for temporary stay, typically for the day or overnight, originating from another airport.

Landside Facility Objectives

Terminal (GA) – A terminal building at a GA facility indicates that there are at least some services available to pilots and airport users, such as restrooms, a pilot lounge, a flight-planning area, and more.

Snow Removal Equipment (SRE) – SRE can include blowers, plows, tractors, and brooms.

Dedicated Maintenance/SRE Storage Building – Properly storing SRE in a covered facility/building can preserve quality and prolong the investment of purchasing the equipment.

Airport Service Objectives

24-Hour Fuel Service (AvGas or Jet A) – Self-service fueling facilities (Jet A or 100LL) are helpful in instances where pilots must refuel after hours. Having efficient and after-hours access to fuel via self-serve credit card machines can be particularly important during emergency medical operations, corporate aviation activities, and more.

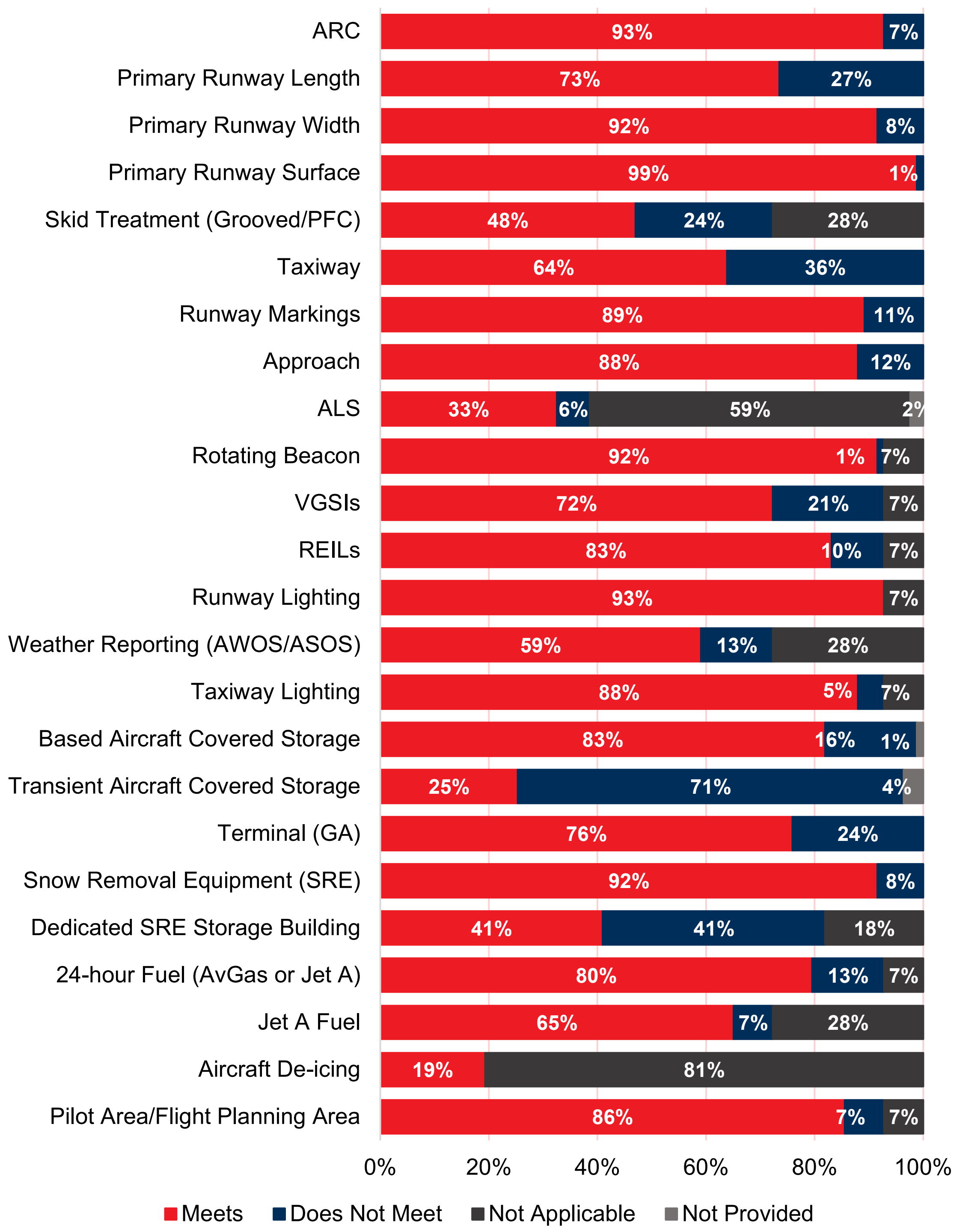
Jet A Fuel – Jet A fuel is required for pilots of jet engine aircraft (the predominant aircraft type excluding recreational flying) and having it available for pilots can attract users and increase airport revenue.

Aircraft Deicing – Aircraft deicing services allows for efficient airport operations during inclement weather. Without aircraft deicing airports can experience significant delays in operations and aircraft may not be able to operate until the ice built up on the aircraft naturally melts.

Pilot Area/Flight Planning Area – Pilot areas or flight planning areas are helpful for pilots to plan their next trip and take a reprieve from their last flight. Having these services for pilots can attract users and keep pilots returning to an airport because they know they have a place to rest and plan their next flight.

Figure 3.85 presents the systemwide findings for the FSO analysis, showing the percent of airports in the system meeting, or not meeting, each facility and service objective. The result of "Not Provided" indicates there was not adequate data available to conduct the analysis for that objective and "Not Applicable" means that the objective did not apply to an airport due to airport-specific conditions.

Figure 3.85. Systemwide FSO Performance



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

3.6. Systemwide Minimum Objectives

In conjunction with FSOs, a set of systemwide minimum objectives for all airports regardless of state classification was developed. These objectives represent the minimum level of airfield facilities, landside facilities, and airport services required at all airports to maintain a safe and efficient aviation system that meets a variety of user needs. These objectives represent the recommended minimum level of airfield facilities, landside facilities, and airport services needed at ALL airports to maintain a safe and efficient aviation system that meets a variety of user needs. **Table 3.37** presents the systemwide minimum objectives applicable to all airports.

Table 3.37. Systemwide Minimum Objectives

Objective Category	Systemwide Minimum
Airfield	
Lighted Wind Cone/Velocity Indicator	Yes
All Pavement PCI	60 or Greater
Landside Facilities	
Paved Entry Road	Yes
Segmented Circle Marker Where Non-standard Traffic is Used	Yes
Airport Services	
AvGas Fuel	Yes
Courtesy Car	Yes
Internet Access	Yes
Phone Access	Yes
After-Hours Food and Beverage	Yes
24-Hour (Sanitary) Restrooms	Yes
First-Aid Kit	Yes
Potable Water	Yes
Fire Protection	Yes
Access Control	Yes

Systemwide Airfield Objectives

Lighted Wind Cone/Velocity Indicator – A lighted wind cone provides a visual indication of the direction the wind is blowing.

All Pavement PCI – PCI provides a numerical score that indicates the condition of pavement. For the purpose of this objective, an average PCI score for all pavement, including runway, taxiway, and apron areas, was used.

Systemwide Landside Facility Objectives

Paved Entry Road – A paved entry road can contribute to increased access to an airport and is recommended for all system airports to contribute to improved intermodal connectivity.

Segmented Circle Marker Where Non-standard Traffic is Used – In the instance that a non-standard traffic pattern is used at an airport it is recommended that an airport be equipped with a segmented circle marker, which contributes to safe aircraft traffic flow. A segmented circle marker is recommended for all system airports with non-standard traffic patterns.

Systemwide Airport Services Objectives

AvGas Fuel – AvGas is a low-leaded fuel used for small-piston engine aircraft within the GA community.

Courtesy Car – Courtesy cars are ground transportation options that airports can provide a linkage to the surrounding community, particularly if they do not offer rental car, public transit, or other ground transportation options.

Internet Access – Providing internet access at an airport is helpful for airport staff and airport visitors.

Phone Access – Having phone access is important for day-to-day airport operations and in the event of emergencies.

After-Hours Food and Beverage – After hours food and beverage (through vending machines) can attract airport users and increase airport revenue.

24-Hour (Sanitary) Restrooms – It is important that after-hours airport users have access to sanitary restrooms.

First-Aid Kit – First-aid kits are typically required in any workplace environment and are an IDOT requirement to have at all public-use airports.

Potable Water – Potable water is water that is safe for drinking.

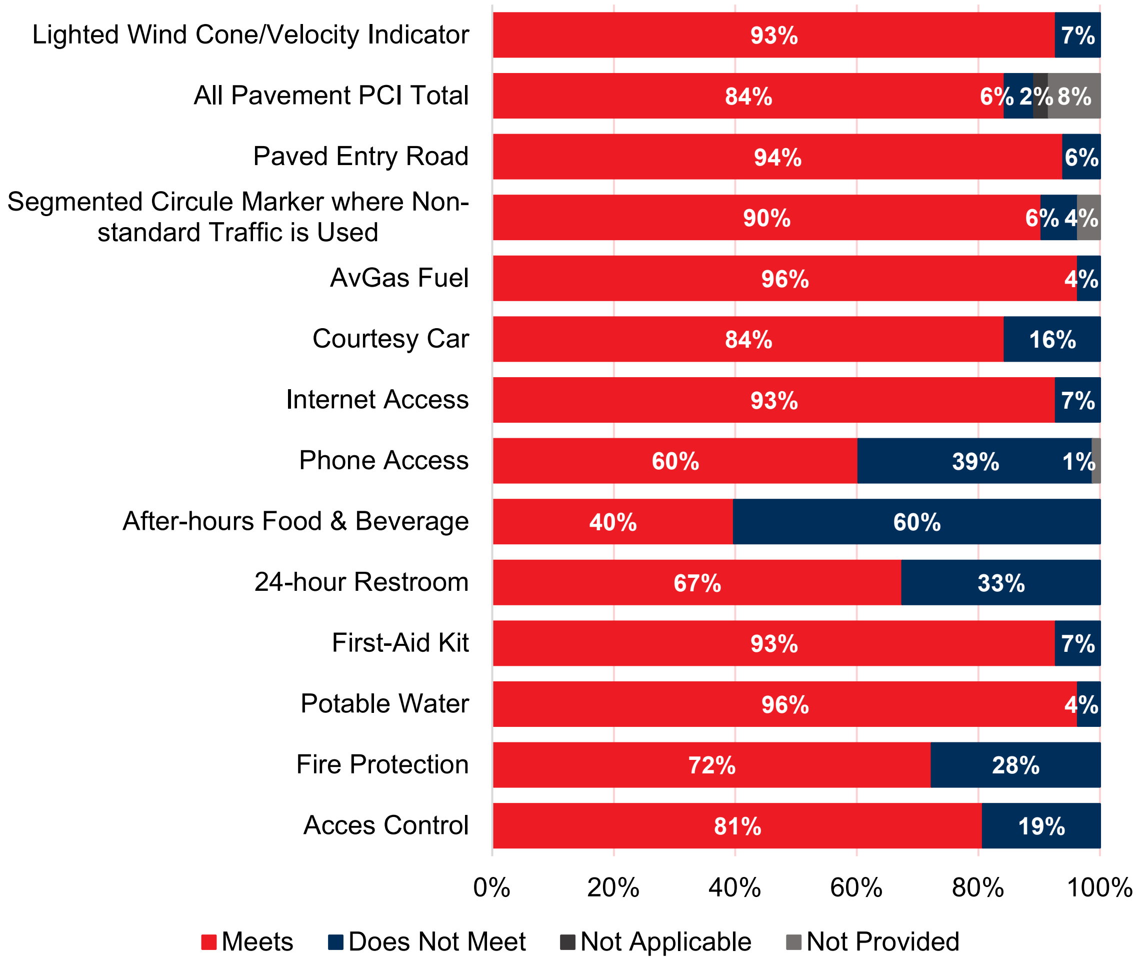
Fire Protection – Fire protection equipment ensures that the airport is prepared in the event of a fire.

Access Control – Access control at an airport contributes to a safe and secure airport. Access controls can include locked entry gates that can only be open by authorized personal, clear signage indicating restricted areas, and so on.

Figure 3.86 presents the findings for the systemwide minimum objectives analysis. The following eight airports meet all of the systemwide minimum objectives:

- Central Illinois Regional Airport at Bloomington-Normal (CMI)
- Ingersoll (CTK)
- Marshall County (C75)
- Quad City International (MLI)
- Rochelle Municipal Airport-Koritz Field (RPJ)
- Whiteside County-Jos H Bittorf Field (SQI)
- Taylorville Municipal (TAZ)
- Vandalia Municipal (VLA)

Figure 3.86. Systemwide Minimum Objectives Performance



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

3.7. Summary

This chapter defined various airport conditions within Illinois's airport system in 2019 and documents they system's performance by way of PMs, PIs, and FSOs. Documenting existing conditions establishes a baseline that helps identify gaps in facilities and services that IDOT Aeronautics can begin to target for improvement. Future performance targets were also presented in this chapter which identified the gap and/or deficiency in airport facilities and/or services.

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Chapter 4. Aviation System Issues

4.1. Introduction

The aviation industry is constantly evolving to keep pace with advances in technology; economic conditions; local, state, and federal regulatory requirements; traveler behavior trends; and other factors inherent to and external from the airport environment. Within this context, airports and sponsors are responsible for maintaining safe and secure aviation facilities that meet user demands. Fiscal resources are often constrained and can vary year-to-year based on how policymakers allocate and prioritize available dollars. Understanding the key issues facing Illinois's airport system—both today and expected to in the years ahead—is a critical task when assessing the system's current and anticipated future demands.

This chapter of the Illinois Aviation System Plan (IASP) summarizes the issues and trends with the highest potential to impact the state aviation system over the 20-year planning horizon. Issues were identified by the Illinois Department of Transportation (IDOT), airport sponsors, and other stakeholders representing a diversity of perspectives on the Illinois aviation system. These sources included:

- Technical Advisory Committee (TAC) members: Serving as the steering committee for the IASP, the TAC is composed of advocates from the public and private sector involved with transportation and economic development in Illinois. Members represent Illinois airports; IDOT; and organizations including the Aircraft Owners and Pilots Association (AOPA), Chicago Metropolitan Agency for Planning, Illinois Air and Critical Transport, Illinois Aviation Trades Association, Illinois Chamber of Commerce, and United Airlines. During its initial meeting on December 4, 2019, the TAC prioritized issues that may affect Illinois airports in the near- and long-terms.
- Airport manager interviews: During the IASP, virtual site visits were conducted at all 11 commercial service and 74 general aviation (GA) airports that comprise the state airport system. As part of this effort, airport managers reported the three most pressing issues facing their facilities on the Inventory Data Form. Airport managers reported airport-specific issues such as hangar shortages and aging infrastructure as well as broader issues including regional growth and funding availability.
- Stakeholder interviews: The IASP project team interviewed stakeholders representing a cross-section of aviation users and industry representatives including state government, university, and airline staff; aviation advocacy groups; pilots' associations; and companies that rely on corporate aviation. Interviewees discussed areas that have the greatest potential to impact the Illinois aviation system over time.

After development of a comprehensive list of potential aviation issues, the study team selected the most pressing concerns for further analysis. In addition, the COVID-19 pandemic arose during the development of the IASP in early 2020, which has significantly affected aviation within the state and around the globe. COVID-19's impacts are still ongoing at the time of this writing (January 2021), and their full extent and severity are currently unknown. The pandemic may exacerbate other issues affecting airports, such as providing for adequate security checkpoint space in aging terminal facilities in consideration of social distancing requirements. The potential impacts of COVID-19 and the other priority issues that may affect Illinois airports are summarized in **Table 4.1**. Additional information about each of these topics is presented in **Section 4.4**. Issues are presented alphabetically, which does not represent their relative importance.

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Table 4.1. Key Illinois Issues

Issue	Overview
Aging Infrastructure	Airports across Illinois report that aging infrastructure is their top concern. Infrastructure exceeding its useful life or with deferred maintenance needs can affect airports' operational efficiency and ultimately cost more when major reconstruction or replacement become warranted. Poorly maintained or outdated infrastructure may result in some passenger and aircraft owners/pilots choosing to use alternative airports. Among other impacts, this can result in demand imbalances at the regional level. Adequately maintaining facilities using a coordinated asset management approach reduces lifecycle costs and supports an efficient airport system for all users.
Aviation Workforce Shortage	Demand for commercial service and some sectors of GA continues to rise, yet the number of aviation professionals is on the decline. Among other causes, many qualified pilots are reaching federally mandated retirement ages, fewer trained personnel are coming out of the military, and potential students are deterred by high educational costs coupled with low starting salaries. The aviation workforce shortage not only applies to pilots, but also mechanics, flight instructors, and other industry staff. Addressing this shortage will take a collaborative effort between all segments of the workforce development chain including state and federal agencies, airlines, educational providers, airports, and other industry advocates.
COVID-19	The arrival of COVID-19 at the global level in early spring 2020 initiated a virtual shutdown of commercial passenger traffic almost overnight. While domestic leisure travelers have now begun to return to the skies, many companies have prohibited employees from traveling for business for the foreseeable future. International passenger travel remains highly impacted as countries close their borders to slow the spread of the virus. GA activity has been more variably affected, with impacts differing between sectors and geographies. Air cargo has fared best, with growth ostensibly constrained more by available cargo capacity than demand. While vaccination programs are now underway worldwide, a "return to normal" may yet be months—if not years—away.
Unmanned Aerial Systems (UAS) and Commercial Space	Emerging aviation technologies including UAS and commercial space systems have exponentially increased in recent years, with some industry analysts likening their transformational power to the jet engine over eighty years ago. Both technologies offer numerous opportunities for commercial, military, educational, and other applications. As UAS usages expand and the privatization of space continues to develop, it will be important to assess impacts on the National Airspace System (NAS) and airports to promote safety and operational efficiency for traditional and emerging users.

Issue	Overview
FBO Pricing Transparency	Fixed base operators (FBOs) offer critical services to GA users at commercial service and GA airports. These businesses provide aviation services such as fueling, aircraft storage, maintenance, and aircraft handling. FBO pilots' lounges often provide a relaxing and friendly place for pilots and passengers to rest and flight plan. While a vital link within the GA community, pilots sometimes report unexpected ancillary costs associated with landing fees, ramp storage, and other services. FBO fee structures can be complicated and change without notice—causing confusion and frustration amongst pilots forced to pay charges viewed as high. Increased FBO fee transparency allows pilots to be informed consumers about where they land—resulting in more satisfied, repeat customers for the FBO and the airport at which it is located.
Growth of E-commerce	Consumers' reliance on e-commerce has grown rapidly in recently years, a trend that has only accelerated since the start of the COVID-19 pandemic. Consumers increasingly expect near-immediate delivery of purchases, and air cargo is now used for the transportation of all types of durable and non-durable goods. This has placed new demands on air cargo handling facilities and increased truck traffic around airports for last-mile connection needs. Such demands are projected to grow in the coming decades—placing new stress on an already constrained system.
Fuel Availability	Airport managers and stakeholders frequently cited the availability and cost of fuel in Illinois as major issues affecting aviation in the state. Airports that offer fuel are more attractive to aircraft owners/pilots when choosing where to base their aircraft. Pilots often make decisions on where to fly based on the cost of fuel at potential destination airports. Fuel sales provide an important revenue source for some airports and can be a factor in where aviation-related businesses locate. Recent changes to state fuel taxes have increased the price of flying and decreased airport revenues, causing concerns with both airport managers and many aviation users.
PFAS	Per- and polyfluoroalkyl substances (PFASs) are found in many types of aqueous film-forming foams (AFFFs) used for airport/aircraft firefighting activities. Because PFASs are toxic to the environment and human health, state and federal government agencies are implementing regulations governing their usage. It is important for airports to understand the issues associated with PFASs, identify potential areas of concern at their facilities, and implement remediation techniques to ensure regulatory compliance and the highest feasible level of environmental stewardship.

Issue	Overview
Rebuild Illinois Bill	In 2019, Governor J.B. Pritzker approved $45 billion dollars to improve Illinois's infrastructure, state facilities, and educational system. Approximately $23.3 billion is earmarked specifically for transportation assets including roads, bridges, ports, and airports. With funds available over a six-year period, the Rebuild Illinois Bill has the potential to close significant funding gaps affecting Illinois's airports and address many of the projects identified by individual airports and through the IASP.
Runway Condition	Properly maintained runways adequately sized for the type and frequency of aviation activities they support are fundamental to a safe and efficient airport system. Airport managers across Illinois cited concerns regarding pavement conditions, which can be costly to repair but can also present threats to safety and operational efficiency. Runway length is a key factor of the type of aircraft that can use an airport as well as its operational capacity.

Source: Kimley-Horn, 2020

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Each of the priority issues affecting the Illinois airport system have a relationship with the IASP goal categories introduced in **Chapter 1**. Developed in accordance with IDOT's Long Range Transportation Plan, the study goals articulate IDOT's specific vision for aviation in the state. They provide guidance on the future the agency would like to create and are the framework by which progress is evaluated. Considering issues in the context of the goals that they affect may help guide IASP recommendations and focus future implementation efforts. Further, linking goals, issues, and future recommendations highlights the IASP's role in meeting the needs of aviation today and looking ahead. The IASP goals are presented below, with the relationship between IASP goals and priority issues presented in **Table 4.2**.

Goal 1: Economy. Improve Illinois's economy by providing transportation infrastructure that supports the efficient movement of people and goods.

Goal 2: Livability. Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.

Goal 3: Mobility. Support all modes of transportation to improve the accessibility and safety by improving connections between all modes of transportation.

Goal 4: Resiliency. Proactively assess, plan, and invest in the state's transportation system to ensure our infrastructure is prepared to sustain and recover from extreme events and other disruptions**.**

Goal 5: Stewardship. Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois's transportation system.

Table 4.2. Issues and Goals Matrix

Issue	Goal #1: Economy	Goal #2: Livability	Goal #3: Mobility	Goal #4: Resiliency	Goal #5: Stewardship
Aging Infrastructure	✓	✓	✓	✓	✓
Aviation Industry Workforce Shortage	✓				✓
COVID-19	✓			✓	
Drones and Commercial Space	✓				✓
FBO Pricing Transparency	✓				
Fuel	✓	✓		✓	✓
Growth of E-Commerce	✓		✓		✓
PFAS	✓	✓			✓
Rebuild Illinois Bill	✓	✓	✓	✓	✓
Runway Condition	✓				✓

Source: Kimley-Horn, 2020

4.2. Aging Infrastructure

From airfield pavement maintenance, rehabilitation, and reconstructions to terminal renovations, Illinois's 85 system airports constantly require updates to provide safe, efficient, and modern facilities to support the aircraft, pilots, passengers, and air cargo they support. In 2021, 48 rehabilitation and reconstruction projects are programmed to receive approximately $312 million in local, state, and federal funding—accounting for 85 percent of total funding programmed for the year. Yet with passenger and air cargo traffic witnessing year-over-year growth (at least prior to COVID-19), this level of investment is not keeping pace with investment needs across Illinois. In a 2019 report, Airports Council International (ACI) reported that Illinois airports require $5.2 billion in infrastructure improvements through 2023.[15] This includes capacity enhancements to serve more passengers and larger aircraft; implement new airside standards and security requirements; reconstruct existing infrastructure; and enhance multimodal access, environmental stewardship, and the passenger experience. The significant gap between available funding and investment needs may hinder the system's ability to meet the growing needs of businesses and travelers in the years ahead and diminish airports' roles as economic engines for their communities and the state.

Growing concern about the state of Illinois's aging airport infrastructure became clear during the data collection efforts of the IASP. Over half of airport managers reported facility improvement needs as one of their most pressing concerns. More specifically, stakeholders most commonly identified the conditions of following infrastructure types as potentially hindering the operational capabilities of Illinois airports over the 20-year planning horizon of the IASP:

- Pavement
- Hangar
- Terminal buildings

Each of these specific concerns is discussed in more detail in the sections that follow. Additionally, the IASP established the "percent of airports with aging facilities as defined by the FAA" as one of the study's performance indicators. The results of this analysis are presented in **Chapter 3. Inventory and Existing System Adequacy**.

4.2.1. Pavement

Airside pavement is an airport's most vital asset and typically represents one of its most significant investments. Pavement must be kept in a condition that allows for safe and efficient aircraft operations. Pavement condition is expressed in terms of the Pavement Condition Index (PCI), with 100 indicating perfect condition and 0 indicating complete failure.

Acceptable levels of service in terms of PCI depend on various factors including airport type and size, pavement facility type (e.g., runways, taxiways, and aprons), and number of aircraft operations and aircraft size.[16] In general, pavements that support more frequent and demanding operations in terms of aircraft weight and speed should be maintained at higher levels of service than less frequently used

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[15] ACI (2019). *Terminally Challenged: Addressing the Infrastructure Funding Shortfall of America's Airports.* Available online at https://airportscouncil.org/wp-content/uploads/2019/02/2019TerminallyChallenged-Web-Final.pdf (accessed January 2021).

[16] ACRP (2011). Synthesis Report 22: *Common Airport Pavement Maintenance Practices*. p. 29. Available online at https://www.nap.edu/catalog/14500/common-airport-pavement-maintenance-practices (accessed January 2021).

pavements supporting less-demanding operations. Once pavements fall below acceptable PCI thresholds, suggested maintenance and repair treatments are applied based on the severity of distress and type of pavement (i.e., asphalt concrete [AC] versus Portland concrete cement [PCC]). The Airport Cooperative Research Program's (ACRP) Synthesis Report 22: *Common Airport Pavement Maintenance Practices*, identifies 24 repair treatments for AC, PCC, or both pavement types. These treatments are presented in **Table 4.3**.

Table 4.3. Pavement Preservation Treatments by Pavement Type

AC Pavement	PCC Pavement	Both Pavement Types (AC and PCC)
Sealing and filling of cracks (with hot or cold applied sealants)	Joint and crack sealing (with bituminous, silicone, or compression sealants)	Texturization using shot blasting
Small area patching (using hot mix, cold mix, or proprietary material)	Partial depth repairs (using AC, PCC, and proprietary materials	Diamond grinding
Spray patching (manual chip seal	Full-depth repairs (using AC, PCC, and proprietary materials	Microsurfacing
and mechanized spray patching)	Machine patching using hot mix	
Machine patching with AC material	Slab stabilization and slab-jacking	
Rejuvenators and seals	Load transfer	
Texturization using fine milling	Crack and joint stitching	
Surface treatment (chip seal, chip seal coat)	Hot-mix overlays	
Slurry seal	Bonded PCC overlay	
Hot-mix overlay (includes milling of AC pavements)	Joint and crack sealing (with bituminous, silicone, or compression sealants)	
Hot in-place recycling	Partial depth repairs (using AC, PCC, and proprietary materials	
Cold in-place recycling		
Ultra-thin whitetopping		

Source: ACRP, 2011

It is most critical to monitor and maintain airports' primary runways and taxiways due to the demands placed upon these pavement areas. Accordingly, the IASP established that all primary runways and taxiways should be maintained at a PCI of 70 or greater as a performance indicator. As further detailed in **Chapter 3**, 61 percent of all primary runways and 58 percent of all primary taxiways achieve these levels (see **Figure 4.1** and **Figure 4.2**, respectively).

Figure 4.1. Systemwide Performance, Primary Runways

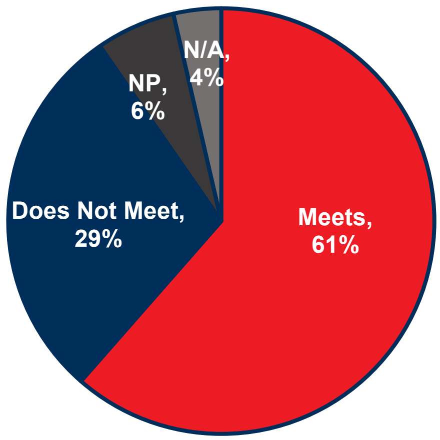
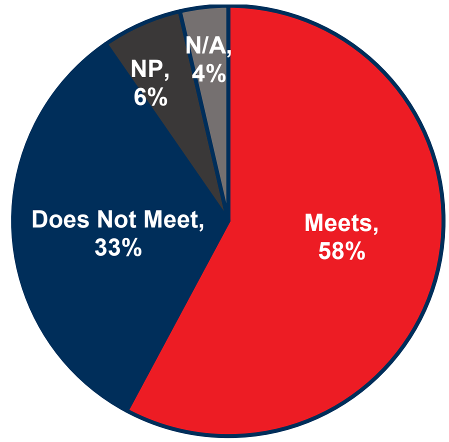


Figure 4.2. Systemwide Performance, Primary Taxiways



Notes: NP indicates that data was not provided for this analysis. N/A indicates the system's three turf runways/taxiways, which are not applicable for this analysis. Sources: IDOT PCI Database, 2020; IASP Inventory Form, 2020; Kimley-Horn, 2020

The IASP also assessed the percent of airside pavement within its useful life as defined by the FAA including:

- New or fully reconstruction airside pavement less than 20 years old
- Rehabilitated airside pavement less than 10 years old

With 83 percent of airside pavement older than 20 years old or 90 percent of pavement rehabilitated more than 10 years ago, pavement age may well become a major investment need in Illinois (see **Figure 4.3** and **Figure 4.4**, respectively).

Figure 4.3. Systemwide Performance, Airside Pavement Less than 20 Years Old

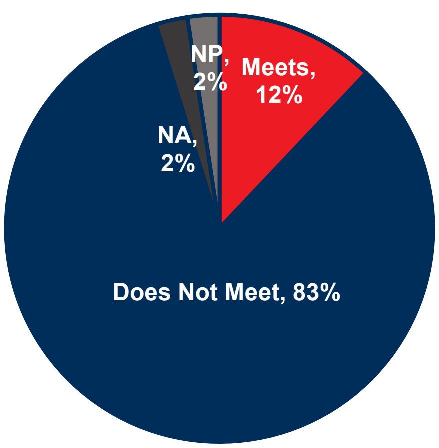
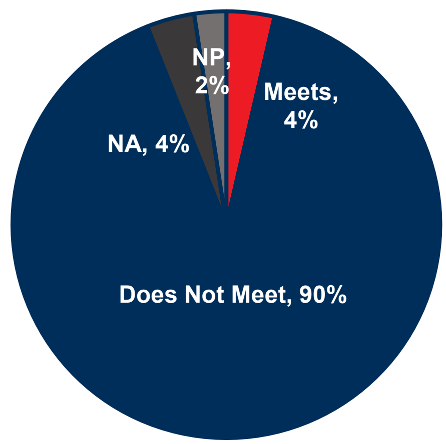


Figure 4.4. Systemwide Performance, Rehabilitated Pavement Less than 10 Years Old



Notes: NP indicates that data was not provided for this analysis. N/A indicates the system's three turf runways/taxiways, which are not applicable for this analysis. Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

4.2.2. Hangars

Hangars are enclosed buildings used to secure and store aircraft. Hangars shelter aircraft from external elements such as weather (e.g., snow, rain, hail, sun, etc.), dust, and wildlife. Each of these factors can cause significant and expensive cosmetic and operational damage and ultimately reduce the longevity of peak aircraft performance. Because aircraft are significant investments that should be protected, most aircraft owners prefer to store their aircraft in hangar facilities. Hangars vary widely in terms of condition, size, and available amenities (such as heat and other available utilities) although there are two main types: conventional or box hangars and nested T-hangars. Larger and more sophisticated aircraft are typically stored in conventional hangars while small GA aircraft are commonly stored in nested T-hangars. The availability of hangars supports existing and draws new based and transient aircraft, attracts new businesses, and can generate additional airport revenue. As such, the availability of well-maintained and managed hangars can be an important element of a financially secure and self-sufficient airport.

There are approximately 4,150 hangar spaces at Illinois system airports. Similar to pavement conditions discussed above, the IASP evaluated the percent of airports in the state where all hangars structures are less than 20 years old. This analysis revealed that 88 percent of airports have at least one hangar facility exceeding its useful life (defined as structures less than 20 years old). While a vital asset within the Illinois airport system, many airports will likely struggle to find enough funding to maintain hangars in adequate condition as existing facilities deteriorate. Furthermore, new hangar development can also be challenging. As a State Block Grant Program participant, IDOT selects projects to receive federal AIP funding in accordance with the FAA's National Priority Rating (NPR) system. AIP funds can be used to construct hangars at Nonprimary airports; however, all airside development needs must first be met. Other potential funding sources include public or private loans and municipal government bonds. Airports can also partner with private developers to construct hangars on airport property via ground leases.

Regardless of ownership (airport sponsor or private investor), the return on investment on hangar development can be considerably long and assets will depreciate over time. Airports can also seek creative and unique solutions to fund new and maintain existing facilities. The Southern Illinois Airport received a $3.75 million grant from the U.S. Department of Commerce in 2018 to construct two new conventional hangars. One hangar provides additional storage capacity in the region and the second supports on-airport business tenants.[17] Both uses exemplify how hangars are critical in supporting an airport's economic contribution to its community and the state.

4.2.3. Terminal Buildings

Terminal buildings are an essential component of commercial service airports and valuable assets for many GA facilities. In nearly all cases, terminals serve as the nexus between aircraft and pilots and passengers, ground transportation systems, and other landside facilities. Because most passengers only interface with a terminal complex, their experience within and opinion of the terminal is a major driver of their willingness to use the airport in the future.

Commercial service and GA terminals differ considerably in terms of available services, amenities, and facilities. GA terminals can simply provide an area for pilots to conduct flight planning activities and for airport users to wait and relax prior to and after flight. Many GA terminal offer lounge areas, restrooms,

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[17] https://www.dailyherald.com/article/20181007/news/310079956

and access to Wi-Fi. Terminals can also host concessionaires and other on-airport businesses that generate an important source of revenue for some airports though leases and sales commissions.

Commercial service terminal facilities are significantly more complicated, with facility requirements driven in large part by passenger levels, airside needs, and regulatory mandates. Airside terminal design accounts for aircraft parking, maneuvering, and service needs; ground support equipment movement and storage requirements; environmental, security, and emergency responses considerations; blast fence placement; and winter operation needs including aircraft deicing and apron snow removal. Terminal building design must not only meet regulatory requirements but also provide for a functional and user-friendly experience. The key components of terminal building design include passenger levels, concessions planning, security screening requirements, the efficient movement of people and baggage, and the incorporation of sustainability and demand management concepts. Airports should also consider current needs and future flexibility during terminal replacement and rehabilitation projects as demand and regulations will change over time.

All of Illinois's 12 commercial service airports have a commercial service terminal and 84 percent of all airports have a GA terminal. Only 12 percent of terminal buildings in Illinois are less than 40 years—a figure that portends significant investment needs in the years ahead. Nearly one-third of airport managers reported terminal replacement or rehabilitation needs during the IASP inventory process, with 17 percent of respondents indicating an aging terminal building as one of their top three concerns.

4.2.4. Next Steps

Across the U.S., investments into airports are failing to keep pace with passenger and cargo demands. The significant gap between investment need and availability is becoming increasingly evident in the condition of airside and landside facilities and impacting nearly all types of airport users. Furthermore, some travelers are choosing to bypass air travel all together. The U.S. Travel Association reported that "Americans skipped more than 30 million air trips in 2016 due to airport hassles, costing our economy more than $24 billion."[18] Congestion within terminals and outdated facilities is affecting national and state economies, with the issue only worsening as deferred maintenance needs continue to grow.

In March 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act (H.R. 748, Public Law 116-136) included $10 billion in funding for airports included in the National Plan of Integrated Airport Systems (NPIAS). The subsequent Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) (H.R. 133), signed into law in December 2020, included an additional $2 billion in economic relief to NPIAS airports. At the time of this writing (January 2021), 78 Illinois airports have received additional federal funding as a result of these Coronavirus relief acts. These federal dollars are one step towards addressing the transportation infrastructure concerns cited by many aviation stakeholders in Illinois.

[18] U.S. Travel Association (2018). "Building the Next Generation of Travel Infrastructure." Available online at https://www.ustravel.org/sites/default/files/media_root/document/InfrastructureRecommendations_2018.pdf (accessed January 202).

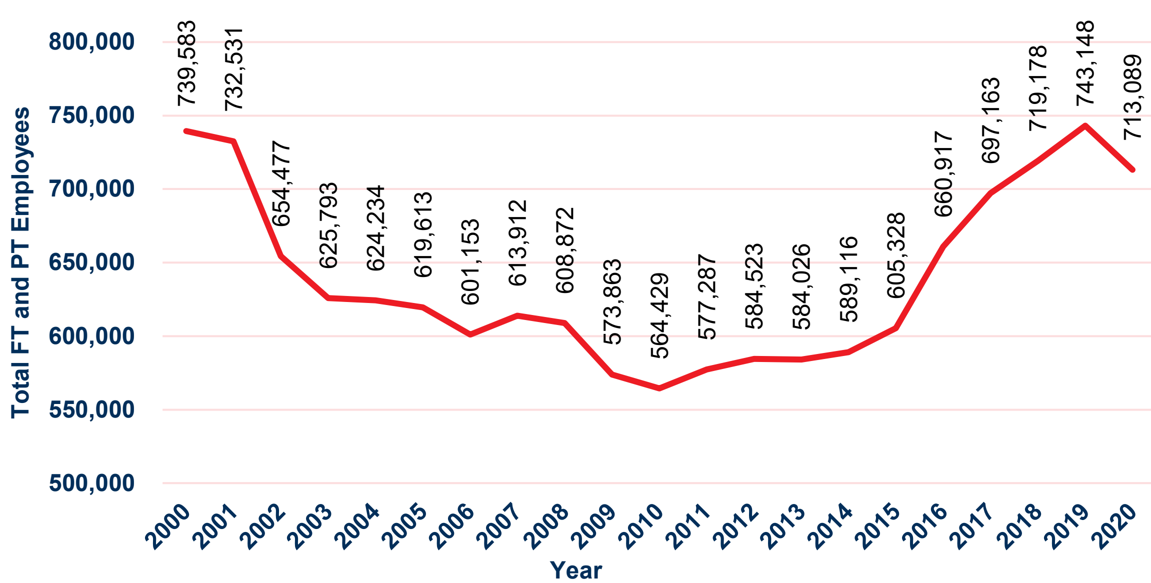
4.3. Aviation Industry Workforce Shortage

The demand for aviation has grown steadily since the economic recovery following the Great Recession, driven by positive economic growth, increasing populations, rising reliance on air cargo, and numerous other factors. Between 2014 and 2019, the U.S. witnessed year-over-year passenger growth, and 2019 marked the 11th consecutive year of profitability for U.S. airlines. The FAA and other industry analysts had predicted these trends to continue into 2020 (prior to COVID-19), with growth anticipated in all indicators of commercial service and air cargo activities and some sectors of GA. Yet despite the economic strength of aviation, the industry has been plagued by workforce shortages affecting nearly all categories of employment including pilots, mechanics, and air traffic controllers.

Companies have long relied on the military as a source of pilots and other skilled workers. However, as military forces are reduced, fewer former military personnel are now available to transition into civilian aviation careers. The overall U.S. labor pool has been on the decline over the past 60 years. Additionally, the need for some college, military experience, and/or specialized training and licensure coupled with low starting wages can deter potential students or professionals from pursuing a career in aviation. If the number of aviation professionals available in the workforce cannot keep pace with growing demands, the aviation industry—and the many industries that rely on it—may too be forced to pause.

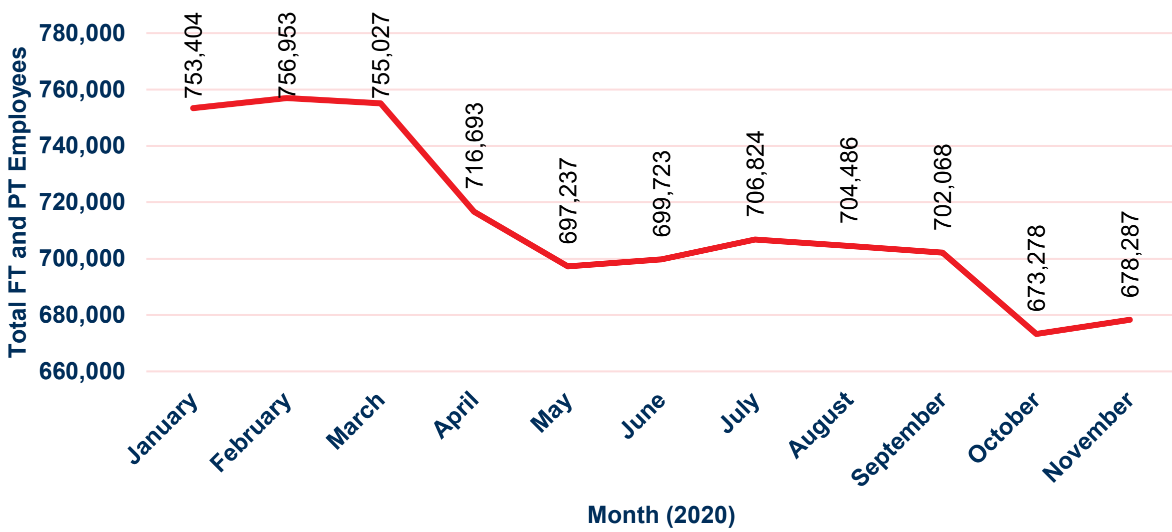
Although the aviation workforce shortage has been on the industry's radar for a number of years, the COVID-19 pandemic may have changed the industry workforce landscape, at least in the near-term. Nearly all scheduled commercial airlines have experienced substantial losses in revenue in the wake of the pandemic, forcing widespread workforce furloughs and lay-offs. Affected workers include pilots, mechanics, operations personnel, flight attendants, and others. As shown in **Figure 4.5**, U.S. airlines lost over 30,000 workers between 2019 and 2020, with the sharpest declines witnessed immediately following the emergence of the pandemic in March 2020 (see **Figure 4.6**). These reductions have deferred the point at which the workforce shortage will fully impact the industry, but with signs of recovery already apparent, the respite is undoubtedly temporary.

Figure 4.5. Total U.S. Full- and Part-time Domestic Airline Employees, 2010 - 2020



Note: Data unavailable for December 2020. Source: Bureau of Transportation Statistics (BTS), Schedule P-1(a), 2021

Figure 4.6. Total U.S. Full- and Part-time Airline Domestic Airline Employees by Month, 2020



Note: Data unavailable for December 2020. Source: BTS, Schedule P-1(a), 2021

The following sections present a more detailed analysis of three key workforce issues that may affect the Illinois aviation landscape.

4.3.1. Pilots

A primary concern for the aviation industry globally is the growing gap between increasing pilot demand and the declining number of certified pilots currently and projected in the coming years. Forecasts before COVID-19 showed nearly 20,000 U.S. airline pilots will reach the FAA's mandatory retirement age of 65 by 2020—representing almost 16 percent of all airline pilots in the U.S. Such a decline would likely cause ripple effects throughout the entire U.S. economy.[19] Pre-COVID-19 projections by Boeing anticipate the national U.S. aviation industry will need 117,000 new pilots to accommodate growing air travel demands through 2036. New FAA training regulations have increased flight time requirements for commercial pilots and fewer military-trained pilots are entering a civilian aviation career. In 2013, the FAA implemented a rule that all first officers of commercial airline flights hold an Air Transport Pilot (ATP) license requiring a minimum of 1,500 flight hours. Prior to the 2013 rule, entry-level first officers could be employed with a commercial pilot license requiring 250 hours. Prospective pilots also face high educational costs, extensive and lengthy educational and licensing requirements, and relatively low entry-level salaries.

As a result of these and other issues, student pilots are not matriculating quickly enough to fill commercial pilot positions. The shortages are particularly acute for regional carriers, as pilots often transition to larger, long-haul carriers offering higher wages and better benefits as they obtain more flight hours. shows the number of active pilots by type of certificate between 2010 and 2019. The total number of pilots, minus students, decreased by 0.9 percent, with declines experienced specifically in the recreational, private, commercial, rotorcraft, and glider categories (instrument rated pilots are also anticipated to decline slightly; however, these pilots are already accounted for in other categories and do not represent an additional group). The sport pilot and ATP categories do show 6.5 and 1.7 percent growths, respectively.

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[19] aviationweek.com/commercial-aviation/coming-us-pilot-shortage-real

Table 4.4. Active Pilots by Type of Certificate, Excluding Student Pilots, 2010 - 2019[1,2]

Year	Recreational	Sport Pilot	Private	Commercial	Airline Transport	Rotorcraft Only	Glider Only	Total Less Student Pilots	Instrument Rated Pilots[3]
2010	212	3,682	202,020	123,705	142,198	15,377	21,275	508,469	318,001
2011	227	4,066	194,441	120,865	142,511	15,220	21,141	498,471	314,122
2012	218	4,493	188,001	116,400	145,590	15,126	20,802	490,630	311,952
2013	238	4,824	180,214	108,206	149,824	15,114	20,381	478,801	307,120
2014	220	5,157	174,883	104,322	152,933	15,511	19,927	472,953	306,066
2015	190	5,482	170,718	101,164	154,730	15,566	19,460	467,310	304,329
2016	175	5,889	162,313	96,081	157,894	15,518	17,991	455,861	302,572
2017	153	6,097	162,455	98,161	159,825	15,355	18,139	460,185	306,652
2018	144	6,246	163,695	99,880	162,145	15,033	18,370	465,513	311,017
2019	127	6,467	161,105	100,863	164,947	14,248	19,143	466,900	314,168
Average Annual Growth									
2010-19	-5.5%	6.5%	-2.5%	-2.2%	1.7%	-0.8%	-1.2%	-0.9%	-0.1%

Notes: (1) An active pilot is a person with a pilot certificate and a valid medical certificate. (2) Starting with April 2016, there is no expiration date on the new student pilot certificates. This generates a cumulative increase in the student pilot numbers and breaks the link between student pilot and private pilot or higher-level certificates. Since there is no sufficient data yet to forecast, the student certificates under the new rule, student pilot forecast is suspended and excluded from this table. (3) Instrument rated pilots should not be added to other categories in deriving total. Source: FAA U.S. Civil Airmen Statistics, 2020

In the year ahead, the FAA does anticipate some growth over the forecast horizon, as shown in **Table 4.4**. The sport pilot category is anticipated to increase most notably at 3.4 percent, with small gains anticipated in the ATP, rotorcraft, and glider categories. In total, the FAA anticipates 0.1 percent growth across all categories (less student pilots). Note the FAA has currently suspended student pilot forecasts for the third year in a row due to a 2016 regulatory change. Between 2016 and 2019, the student pilot population has increased from 128,501 to 197,665.

Table 4.5. Forecasted Active Pilots by Type of Certificate, Excluding Student Pilots, 2019 - 2030[1,2]

Year	Recreational	Sport Pilot	Private	Commercial	Airline Transport	Rotorcraft Only	Glider Only	Total Less Student Pilots	Instrument Rated Pilots[3]
2019	127	6,467	161,105	100,863	164,947	14,248	19,143	466,900	314,168
Forecast									
2020	125	6,740	161,700	100,950	166,900	14,100	19,350	469,865	316,300
2021	120	7,015	161,650	101,000	167,600	14,000	19,550	470,935	317,500
2022	115	7,290	161,150	101,000	168,500	14,050	19,700	471,805	318,800
2023	115	7,565	160,300	100,950	169,300	14,150	19,850	472,230	320,000

Year	Recreational	Sport Pilot	Private	Commercial	Airline Transport	Rotorcraft Only	Glider Only	Total Less Student Pilots	Instrument Rated Pilots[3]
2024	115	7,840	159,200	100,900	170,200	14,300	19,950	472,505	321,300
2025	110	8,110	157,900	100,800	171,100	14,500	20,050	472,570	322,700
2026	105	8,375	156,500	100,650	172,100	14,700	20,150	472,580	324,000
2027	100	8,635	155,050	100,550	173,200	14,900	20,200	472,635	325,300
2028	95	8,895	153,550	100,400	174,400	15,150	20,250	472,740	326,600
2029	90	9,150	152,100	100,250	175,600	15,400	20,250	472,840	327,900
Average Annual Growth									
2019-20	-1.6%	4.2%	0.4%	0.1%	1.2%	-1.0%	1.1%	0.6%	0.7%
2020-30	-3.2%	3.4%	-0.7%	-0.1%	0.6%	1.1%	0.5%	0.1%	0.4%

Notes: (1) An active pilot is a person with a pilot certificate and a valid medical certificate. (2) Starting with April 2016, there is no expiration date on the new student pilot certificates. This generates a cumulative increase in the student pilot numbers and breaks the link between student pilot and private pilot or higher-level certificates. Since there is no sufficient data yet to forecast, the student certificates under the new rule, student pilot forecast is suspended and excluded from this table. (2) Instrument rated pilots should not be added to other categories in deriving total. Source: FAA U.S. Civil Airmen Statistics, 2019

The total number of pilots by category in Illinois and the total U.S. is provided in **Table 4.6**. Illinois is home to 2.8 percent of the total number of pilots in the U.S. Illinois witnessed a small increase in the total number of pilots in the state between 2018 and 2019, rising from 17,105 to 17,721.

Table 4.6. Pilots by Category, U.S., Illinois, and Percent of U.S. Total

Category	U.S. Total	Illinois	Percent of U.S. Total
Students	185,835	5,048	2.7%
Private[1]	165,813	4,840	2.9%
Commercial[1]	102,783	2,545	2.5%
ATP[1]	163,063	4,968	3.0%
Miscellaneous[2]	6,571	320	4.9%
Total Pilots	**624,065**	**17,721**	**2.8%**
Flight Instructor[3]	110,431	3,591	3.3%
Remote Pilots[3]	158,980	5,271	3.3%

Notes: (1) Includes those with an airplane and/or a helicopter and/or glider certificate. Pilots under the Rotorcraft Only and Glider Only class certificates are included under their respective Private, Commercial, or ATP categories above. (2) Includes recreational and sport. (3) Not included in total. Source: FAA U.S. Civil Airmen Statistics, 2019

4.3.2. Maintenance Technicians

Maintenance technicians are a critical component of the continued safety of the aviation industry. Maintenance technicians must complete 18 months of practical work applicable to either an airframe or power plant rating. In order to earn both ratings, a technician must complete a certified aviation maintenance program or demonstrate 30 months of applicable experience. Each rating requires a combination of 400 hours of general coursework and 750 hours related to airframe or power plant technology.[20]

The educational coursework required for these ratings can be completed at several collegiate programs across the country that offer two-year technical degrees in aircraft maintenance. Illinois is home to five FAA-accredited maintenance schools including Lewis University, Lincoln Land Community College, Rock Valley College, Southern Illinois University, and Southwestern Illinois College. The FAA reports there are 7,166 mechanics certified in Illinois representing 2.6 percent of the total number of mechanics in the U.S (see **Table 4.7**). Additional nonpilot airmen employment numbers for the total U.S. and Illinois, as well as percent of U.S. total, are also provided.

Table 4.7. Nonpilot Airmen by Category, U.S., Illinois, and Percent of U.S. Total

Category	U.S. Total	Illinois	Percent of U.S. Total
Dispatcher	18,038	994	5.5%
Flight Attendant	242,091	12,765	5.3%
Flight Engineer	31,543	977	3.1%
Flight Navigator	39	0	0.0%
Ground Instructor	66,354	2,177	3.3%
Mechanic	280,464	7,166	2.6%
Parachute Rigger	6,336	138	2.2%
Repair men	36,232	962	2.7%
Total Nonpilot Airmen	**681,097**	**25,179**	**3.7%**

Note: Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, repairmen, parachute riggers, and ground instructors represent total ratings issued to date. These ratings retain their validity and have been limited to those held by persons under 70 years of age. Source: FAA U.S. Civil Airmen Statistics, 2019

Similar to pilots, the aging of the workforce is a primary concern within the industry. The median age of aviation mechanics nationwide is 51 years, which is nine years older than the median age of the broader U.S. workforce.[21] Competition for qualified personnel is high because aviation mechanics sometimes choose to work outside of the aviation industry, The Aviation Technician Education Council (ATEC) estimates that 30 percent of those who finish an aviation maintenance training course accept employment in another industry.[22] Although the number of mechanics and enrollment in maintenance courses are down, one stakeholder from Southwestern Illinois College reported that the school's maintenance program is at-capacity—potentially signally a broader upward trend.

[20] https://www.faa.gov/mechanics/become/basic
[21] https://cavok.oliverwyman.com/our-expertise/insights/2018/jun/aviation-growth-is-outpacing-labor-capacity.html
[22] https://cavok.oliverwyman.com/our-expertise/insights/2018/jun/aviation-growth-is-outpacing-labor-capacity.html

4.3.3. Air Traffic Control Towers (ATCTs) Hours of Operation

FAA Air Traffic Services are critical to the safe and efficient movement of aircraft across the nation. Air Traffic Services control more than five million square miles of airspace in the U.S. and more than 24 million square miles over the oceans. The IASP TAC identified the limited hours of operation of some ATCTs in Illinois as an issue of pressing concern.

ATCTs support an airport's operational efficiency and safety, particularly at facilities with high demand and that support diverse aircraft traffic. While not an exact workforce shortage, facilities with only part-time ATCTs may lead to congestion issues in Illinois's busiest airspace. Hours of operation at air traffic control towers differ based on demand at the airport. Large hub commercial service airports like Chicago O'Hare International (ORD) and Chicago Midway International (MDW) airports have towers that are operational 24 hours a day, seven days a week. Airports with less demand operate ATCTs on a more limited schedule. For example, the ATCT at St Louis Regional (ALN) operates for 15 hours a day. **Table 4.8** summarizes information about all ATCTs in Illinois including average number of total operations recorded per day (2019), tower type, and number of hours the tower operates per day.

Table 4.8. Summary of Illinois Air Traffic Control Towers

Associated City	Airport ID	Average Ops / Day (2019)	Tower Type	Operating Hours / Day
Alton/St Louis	ALN	85	Contract	15
Bloomington/Normal	BMI	63	Contract	16
Cahokia/St Louis	CPS	266	FAA	15.5
Carbondale/Murphysboro	MDH	265	Contract	14
Champaign/Urbana	CMI	146	FAA	17
Chicago	MDW	636	FAA	24
Chicago	ORD	2,520	FAA	24
Chicago/Aurora	ARR	175	FAA	14
Chicago/Prospect Heights/ Wheeling	PWK	203	FAA	M-F: 16; S-S: 15
Chicago/Rockford	RFD	113	FAA	24
Chicago/Romeoville*	LOT	285	Contract	TBD
Chicago/Waukegan	UGN	117	Contract	12
Chicago/West Chicago	DPA	365	FAA	24
Decatur	DEC	96	Contract	16
Marion	MWA	57	Contract	12
Moline	MLI	93	FAA	17
Peoria	PIA	109	FAA	24
Springfield	SPI	71	FAA	16

Note: LOT's tower is under construction and plans to be operational by end of 2021*

Sources: FAA Air Traffic Activity System (ATADS), 2021; AOPA 2021

4.3.4. Next Steps

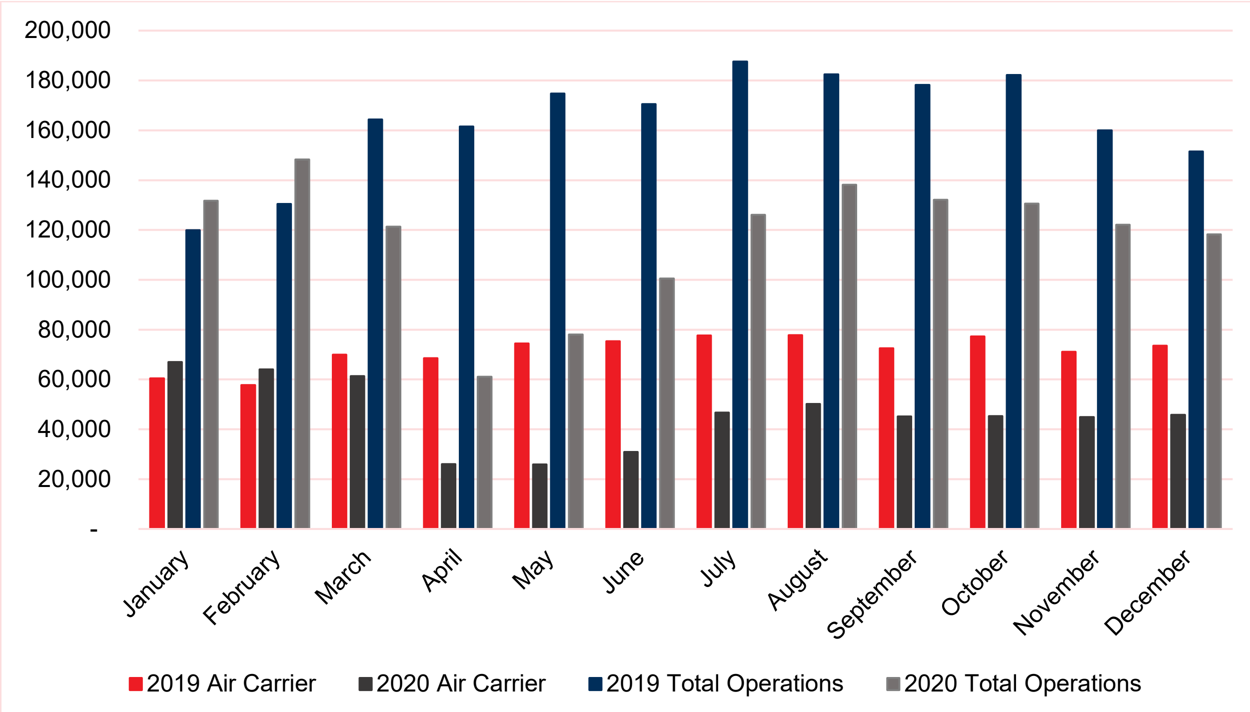
Although recent trends show positive growth in terms of student and matriculated pilots and COVID-19 has slowed the pace at which aviation workforce personnel are needed, the industry personnel shortage will continue to be a serious and persistent issue for years to come. In order to satisfy the need for skilled personnel in the aviation workforce, as well as increase operational safety by way of increased ATCT hours of operation, it is essential that Illinois works together with federal agencies, airports, educational institutions, and the private sector to address this growing challenge. Such partnerships will be required to develop strategic solutions to address the financial and other obstacles for students considering a career in the aviation industry.

4.4. COVID-19

After arriving in the U.S. in January 2020, high numbers of COVID-19 cases soon emerged across the country. In addition to being a public health crisis, COVID-19 has impacted the economy and air travel both domestically and across the globe. To slow the transmission of the virus, many companies have prohibited employees from traveling for business; countries have closed their borders; and some states have mandated stay-at-home/shelter-in-place orders, closed non-essential businesses, and discouraged all non-essential travel. With commercial passenger travel plummeting, some U.S. airports have closed entire concourses, gates, and runways to reduce operating expenses and allow some staff to work from home to minimize the risk of exposure.

Figure 4.7 shows the number of air carrier and total operations occurring at all towered airports in Illinois in 2019 and 2020 by month. In January and February 2020, prior to the outbreak of the virus in the U.S., air carrier and total operations exceeded 2020 figures by 10 to 14 percent. That trend reversed in March, with air carrier operations dropping by 12 percent compared to that same month in 2019 and total operations dropping by 26 percent. The month-over-month percent difference fell to its nadir in May 2020, with air carrier operations 65 percent less than the previous year and total operations at 55 percent less. Trends began to improve somewhat in July. Air carrier operations between July and December 2020 were between 37 and 41 percent lower than 2019. Total operations in 2020 hovered between 22 and 28 percent less than 2019 for each month. All monthly numbers are presented in **Table 4.9**.

Figure 4.7. Air Carrier and Total Operations at Towered Airports in Illinois by Month, 2019 - 2020



Source: FAA Air Traffic Activity System (ATADs), January 2021

Table 4.9. Air Carrier and Total Operations at Towered Airports in Illinois by Month, 2019 - 2020

Month	Air Carrier Operations			Total Operations		
	2019	2020	% Difference	2019	2020	% Difference
January	60,448	67,045	11%	119,913	131,720	10%
February	57,696	63,993	11%	130,494	148,283	14%
March	69,917	61,367	-12%	164,349	121,273	-26%
April	68,584	25,971	-62%	161,557	61,088	-62%
May	74,424	25,954	-65%	174,692	78,084	-55%
June	75,395	30,858	-59%	170,479	100,482	-41%
July	77,602	46,760	-40%	187,580	126,067	-33%
August	77,839	50,149	-36%	182,403	138,188	-24%
September	72,572	45,123	-38%	178,233	132,119	-26%
October	77,308	45,258	-41%	182,224	130,571	-28%
November	71,073	44,853	-37%	159,954	122,143	-24%
December	73,485	45,793	-38%	151,553	118,239	-22%
Total Annual	**856,343**	**553,124**	**-35%**	**1,963,431**	**1,408,257**	**-28%**

Source: FAA ATADs, January 2021

At the national level, total domestic airline capacity declined about 70 percent between 2019 and 2020–a reduction nearly four times greater than after the September 11 attacks and six times greater than after the 2008–2009 financial crisis.[23] As a result, the COVID-19 pandemic has caused unprecedented losses in global airline revenues, with analysts reporting $110 billion in lost revenue to among the world's top airlines during the first three quarters of 2020 alone.[24] **Table 4.10** provides the revenue losses for three U.S. mainline carriers due to COVID-19 from January through September 2020, which totaled $63.9 billion during this nine-month period. Commercial service carriers continue to operate "in the red" at the time of this writing in February 2021.

Table 4.10. Airline Revenue Lost to COVID-19 (Q1 – Q3, 2020)

Airline	Lost Revenue
American Airlines	$21,100,000,000
Delta Air Lines	$22,400,000,000
United Airlines	$20,400,000,000

Source: American Journal of Transportation, 2020

To mitigate losses to the industry and save jobs, the CARES Act allocated $10 billion to support continued operations at NPIAS airports. The CARES Act funded 100 percent of all AIP grants awarded in FY 2020, relieving state and local sponsors from having to provide matching contributions. In addition, airlines and other aviation-related businesses were eligible to receive funding to support continued operations and employ staff despite significant revenues losses. A second round of COVID relief funding was signed into law on December 27, 2020, which provided an additional $2 billion in funding for airports. This second round of funding allocates $45 million in funding for GA airports. These funds can be used for costs related to operations, personnel, cleaning, sanitization, janitorial services, combating the spread of pathogens in airport facilities, and debt service payments.[25]

It is important to note that GA airports have been impacted far more varyingly than commercial service facilities, with some sectors even witnessing record-high numbers of operations. Some recreational pilots have benefitted from low fuel prices coupled with few other recreational alternatives due to COVID-related shutdowns and social distancing recommendations. Pilots may have more time to fly as companies move to a work-from-home model. Airports too have reported upticks in corporate/business aviation. With many companies hesitant to fly employees and clients via scheduled commercial service, the relative control and isolation offered by corporate/business aviation is a welcome and viable alternative. Yet like many impacts of COVID-19, precisely how and to what extent the virus has impacted GA airports is unknown. Full calendar year data is unavailable from many sources at the time of this writing, and activity counts at non-towered airports are inherently difficult to capture in any year. As such, much of what is known about the impacts of COVID-19 at most GA airports relies on anecdotal information provided by airport managers or FBOs or by comparing fuel sales over time. Despite these challenges, it is vitally important that state and federal policymakers continue to monitor GA activity to ensure airports and aviation-related businesses continue to remain viable and operational through the pandemic.

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[23] https://www.mckinsey.com/industries/travel-logistics-and-transport-infrastructure/our-insights/for-corporate-travel-a-long-recovery-ahead
[24] https://ajot.com/news/article/worlds-largest-airlines-lost-110bn-in-ytd-revenue
[25] https://www.aopa.org/news-and-media/all-news/2020/december/23/congress-funds-aviation-in-combined-bill

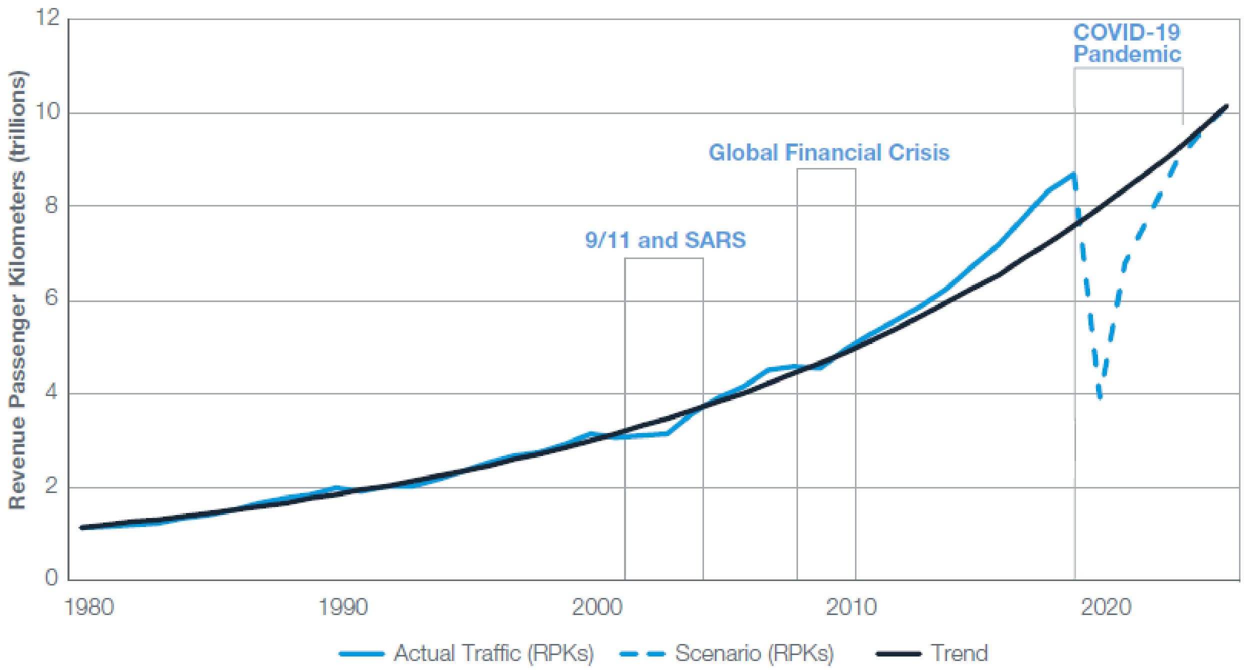
4.4.1. Next Steps

At the time of this writing in January 2021, COVID-19 vaccines are being delivered nationwide, with healthcare workers, educators, emergency responders, and vulnerable populations already receiving the shot in many states. Although these vaccines are promising and play an invaluable role in ending the pandemic, the timeline for widespread immunity is unknown. Despite the uncertainty, passengers are returning to the skies. The Transportation Security Administration (TSA) screened 1,284,599 passengers on December 27, 2020, the highest recorded number of passengers since the COVID pandemic was announced in March.[26] The record-setting number of passengers is promising; however, the total still represents less than half of the number of passengers screened on the same day in 2019. Until the virus has been eradicated or considered totally under control, airport operators and airlines must continue to implement all strategies to mitigate threats associated with virus exposure. ACRP Report 91: *Infectious Disease Mitigation in Airports and on Aircraft* offers best practices associated with reducing the transmission of infectious diseases such as COVID-19.

While challenges undoubtedly lie ahead, analysts generally expect a three- to five-year recovery period before air travel restores to pre-COVID levels. As the COVID-19 pandemic has severely impacted air travel and demand for passenger service, there are many unknowns regarding how the industry may recover. However, it is important to remember that other historical events have disrupted air travel in the past. In all cases, demand has returned at higher rates subsequent to each occurrence. The *Boeing Commercial Market Outlook 2020-2039* observes that, "The fundamentals that have driven air travel the past five decades and doubled air traffic over the past 20 years remain intact. While aviation has seen periodic demand shocks since the beginning of the Jet Age, our industry has recovered from these downturns every time throughout its history."[27] This trend is illustrated in **Figure 4.8**, which shows the recovery of air travel following other major world events in the early decades of the 21st century.

[26] https://www.axios.com/tsa-pandemic-sunday-screened-ca7d90fd-9446-4862-b617-57a935517fc8.html
[27] Boeing (October 2020). Commercial Market Outlook 2020-2039. Available online at https://www.boeing.com/resources/boeingdotcom/market/assets/downloads/2020_CMO_PDF_Download.pdf (accessed October 2020).

Figure 4.8. Long-term Air Travel Growth Trends in Consideration of Major World Events



Sources: ICAO scheduled traffic through 1999 / 2000-2019E IATA stats / 2020F IATA December 2019 as presented by the Boeing Commercial Market Outlook 2020-2039

The COVID-19 issue is related to nearly all other IASP issues, particularly as it relates to revenue generation and overall aviation activity including the Aviation Work Force Shortage, Fuel Availability, Growth of E-Commerce, Infrastructure, and Runway Condition. The ripple effects of COVID-19 have permeated through all levels of aviation activity as well as ancillary markets reliant on aviation and travel.

4.5. Drones and Commercial Space

Rapid technological advances continue to change the landscape of aviation, with UAS and commercial exploration existing on the cutting-edge. Both technologies offer promising advancements for enterprise and society at large with expectations for broad commercial, military, research, and other applications. Unmanned aerial vehicles (UAV) are already being used by state agencies including the Illinois State Police and may be adopted by other state agencies in the coming years. Adoption must be carefully planned and executed to avoid any negative impacts on airports and the NAS. Each of these technologies is explored in more detail in the sections below.

4.5.1. UAS

The idea of unmanned aircraft arose over 100 years ago, with U.S. and British forces testing and developing the earliest prototypes during World War I. While the history of UAS is extensive, this technology has only recently moved from primarily military applications to widespread commercial, recreational, research-oriented, and other government use. UAS are now deployed for a wide array of tasks including aerial spraying, monitoring environmentally sensitive areas, providing visual feedback to emergency response crews, aerial firefighting, and aerial surveillance and photography. Many state government agencies now deploy UAV to conduct bridge and port inspections, and some airports are testing the viability of using the technology to remotely monitor pavement conditions.

As the number of UAV deployed continues to grow, so too does the threat of midair collisions with traditional manned aircraft. Several midair collisions have already occurred, and near-misses are regularly reported—although no pilots or passengers have been injured to date. Between April 2019 and June 2020, 99 drone sightings were reported to the FAA at Illinois airports.[28] To promote the safe integration of UAV into the NAS, the FAA issued updated guidance in May 2019 governing the usage of recreational vehicles.[29] These policies state that UAV must be kept within visual life of sight and recreational vehicles of any size must be registered with the FAA. Recreational users must fly at or below 400 feet when in uncontrolled (i.e., Class G) airspace and require users to obtain preauthorization before flying in controlled airspace (i.e., Class B, C, D, and E). Preauthorization is available through the FAA's DroneZone Program or from airports with Low Altitude Authorization and Notification Capability (LAANC). LAANC is available at 537 air traffic control facilities and 726 airports in the U.S., including 20 airports in Illinois (see **Table 4.11**). Additional guidance is provided in in FAA Advisory Circular (AC) 91-57B, *Exception for Limited Recreational Operations of Unmanned Aircraft*.

Table 4.11. Illinois Airports Participating in the LAANC

Associated City	Airport Name	FAA Identifier
Alton/St. Louis	St Louis Regional	ALN
Bloomington/Normal	Central Illinois Regional Airport at Bloomington-Normal	BMI
Cahokia/St. Louis	St Louis Downtown	CPS
Carbondale/Murphysboro	Southern Illinois	MDH
Champaign/Urbana	University of Illinois-Willard	CMI
Chicago	Chicago Midway International	MDW
Chicago	Chicago O'Hare International	ORD
Chicago/Aurora	Aurora Municipal	ARR
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK
Chicago/Rockford	Chicago/Rockford International	RFD
Chicago/Waukegan	Waukegan National	UGN
Chicago/West Chicago	Dupage	DPA
Decatur	Decatur	DEC
Galesburg	Galesburg Municipal	GBG
Marion	Veterans Airport of Southern Illinois	MWA
Moline	Quad City International	MLI
Mount Vernon	Mount Vernon	MVN
Peoria	General Downing-Peoria International	PIA
Quincy	Quincy Regional-Baldwin Field	UIN
Springfield	Abraham Lincoln Capital	SPI

Source: FAA LAANC (updated September 24, 2020)

[28] https://www.faa.gov/uas/resources/public_records/uas_sightings_report/

[29] Any use of UAS for commercial purposes must be conducted under 14 Code of Federal Regulations (CFR) Part 107 and/or other applicable regulations including Part 91, Part 135, and Part 137.

The FAA issued additional rules on December 28, 2020 that require the Remote Identification (Remote ID) of UAV and to allow for the operation of small vehicles over people and at night under certain conditions. Operators are now required to install equipment on their UAV that broadcasts out identifying information. If operators do not have this equipment, operations can be conducted at FAA-recognized identification areas (FRIAs). FRIAs are now the only areas where UAV may operate without broadcasting Remote ID messaging elements.[30] In addition to these federal rules, communities may enact local restrictions governing the usage of UAS. Nineteen percent of airports in Illinois reported having a formal policy regarding UAS during IASP data collection.

With nearly 23,800 drones registered in Illinois and no sign of popularity abating, the potential for conflicts between UAVs and traditional manned aircraft continues to grow. The FAA is continuing to enact stricter regulations, and recreational users will soon be required to pass an aeronautical knowledge test and carry proof of test passage. Unfortunately, there are reports that many UAV operators do not know or follow existing rules, and both airports and traditional pilots are unfamiliar with federal mandates. The previous FAA rule stated that UAV could be operated within five miles of an airport with prior airport permission. While no longer valid, this rule is still cited, and many airports believe they have the authority to govern UAV usage within their vicinities. Further, with UAVs already being deployed for remote package delivery, the potential for conflict will likely grow until a cohesive and comprehensive strategy is developed, implemented, and enforced nationwide. This will require collaboration between commercial, recreational, governmental, and other UAV operators; airports; and traditional airspace users (i.e., pilots). Local policymakers and land use planners may also have a role in enacting zoning regulations addressing future “drone ports” from which this emerging technology is launched. This issue may continue to grow in complexity with the emergence of Urban Air Mobility (UAM) (also known as Advanced Air Mobility [AAM]). UAM is the evolution of UAV technologies to transport passengers short distances within urban areas. UAM promises to relieve ground congestion but introduces new questions including but not limited to their safe integration into the existing National Airspace System (NAS), land use compatibility, and nexus between “traditional” modes of transportation with cutting-edge innovations.

4.5.2. Commercial Space

Space has fascinated humankind since the dawn of our species, with space exploration becoming a reality as an outcome of the “Space Race” beginning in the 1950s. Once solely within the realm of governments, private companies have now entered spaceflight. Private companies began launching satellites into space as early as the 1960s. Fifty years later, SpaceX became the company to launch and recover from orbit a privately developed spacecraft in December 2010. Today, SpaceX is joined by leading aerospace companies such as Blue Origin, Virgin Galactic, Boeing, Northrop Grumman, and Lockheed Martin in producing groundbreaking commercial space technologies. In May 2020, SpaceX became the first private company to launch a crew into space and visit the International Space Station.

Private spaceflight is a rapidly growing field, with new players and established companies making great strides in turning the commercialization of space from science fiction to reality. According to a recent report by Morgan Stanley, the global space industry is expected to generate revenue of at least $1.1 trillion in 2040, up from the current $350 billion.[31] The rapid pace at which the space industry is

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[30] https://www.faa.gov/uas/getting_started/remote_id/
[31] https://www.morganstanley.com/ideas/investing-in-space

developing points to an equally growing need for locations from which to operate. Known as spaceports, the location of a launch site is primarily determined by access to useful orbits and public safety. Launch sites are typically built as far away as possible from population centers in case of a catastrophic failure. Many launch sites are built close to bodies of water to minimize risks to people and property on the ground should failure occur. There are currently 14 operating non-Federal spaceports in the U.S., as shown in **Table 4.12.**

Table 4.12. Non-federal Spaceports in the U.S.

Facility Name	City	State
Blue Origin Launch Site	Van Horn	Texas
Cape Canaveral Spaceport	Cape Canaveral	Florida
Cecil Field Spaceport	Jacksonville	Florida
Colorado Air and Space Port	Watkins	Colorado
Houston Spaceport	Houston	Texas
Mid-Atlantic Regional Spaceport	Wallops Island	Virginia
Midland Spaceport	Midland	Texas
Mojave Air and Spaceport	Mojave	California
Oklahoma Spaceport	Burns Flat	Oklahoma
Pacific Spaceport Complex	Kodiak	Alaska
Space Coast Regional Airport	Titusville	Florida
Spaceport America	Truth or Consequences	New Mexico
SpaceX Launch Site McGregor	McGregor	Texas
SpaceX Launch Site Boca Chica	Boca Chica	Texas

Source: FAA, 2020

States, cities, and airports across the country are discussing the possibility of and applying for FAA spaceport licenses due to the revenue that private space companies can provide for the airport and surrounding community. Although there are currently no spaceports in Illinois, the rapid rate at which these companies are expanding means that more spaceport facilities are likely to be constructed in the future. Issues can arise when these companies decide to build at established airports due, in part, to the amount of room facilities typically require. In fall 2019, Flight Safety International announced it would build a 125,000-square foot aviation training facility at Ellington Field in Houston. Although Ellington Field had the room to accommodate such a large facility, many airports do not. Companies building large-scale facilities on airport property can lead to serious capacity issues and prohibit further development.

As spacecraft launches become more frequent, airspace issues may also arise, In February 2018, SpaceX launched the Falcon Heavy for the first time. The launch took place at the Kennedy Space Center on Merritt Island, Florida. SpaceX was given a launch window from 1:30 PM to 4:00 PM. The FAA shutdown the airspace near the launch site during the launch window. As a result, flights around the Orlando area were disrupted. The launch resulted in approximately 563 flight delays, and planes flew an additional 34,841 nautical miles (nm) as a result.[32] The severe capacity and airspace issues likely to arise from commercial space operations could pose a significant risk to the operational capacity of the Illinois aviation system.

4.5.3. Next Steps

The projected increase in UAS activity in the recreational, commercial, and government sectors warrants further study by IDOT. The state passed an act to create the UAS Oversight Task Force to provide input on creating comprehensive rules governing the operation and use of UAS technologies within the state. State regulators should particularly focus on combatting illegal UAV operations near commercial service airports, which are at highest risk for large-scale disasters should a midair collision occur. It is important to note that this technology remains on an upward trajectory, poised to gain more popularity as technology, regulations, and commercial applications become better aligned. As one stakeholder noted, “the state needs to embrace this emerging technology.”

The magnitude and complexity of space transportation will likely place new demands on aviation infrastructure and the capacity of the NAS. As space vehicles transition through airspace primarily regulated for traditional aircraft, new policies, regulations, and procedures are necessary to provide for safe and efficient operations of both “historic” and emerging technologies. Should the potential for spaceport development arise in Illinois, IDOT should consider the implications from a systemwide perspective to understand how the capacity of the state’s airports and airspace could be affected.

In addition to UAS and the privatization of space, the aviation industry is burgeoning with other cutting-edge technologies promising a future where flight is cheaper, more sustainable, and/or faster than ever before. An acute and industry-wide focus on alternative propulsion systems has been catalyzed by increasing concerns about the rising and volatile cost of fossil fuels, a renewed focus on environmental sustainability, and other enabling trends. This includes the electrification of conventional aircraft as well as the development of new vehicles configured for vertical take-off and landing (eVTOL) most typically associated with Advanced Air Mobility (AAM). Hydrogen is also being extensively researched for its potential to power future zero-emissions aircraft, with many industry analysts considering hydrogen to be the most promising net-zero aviation technology due its extremely high energy density and low weight. Sustainable aviation fuel (SAF) is already a reality, with supply chain logistics and costs being the only obstacles to widespread adoption. SAF is designed to be “drop-in ready,” which means it can be used by aircraft designed to use Jet A fuel without modification.

Supersonic aircraft are also making a resurgence in civilian aviation, with the latest technologies promising to be quieter and less fuel-intensive than their predecessors. Industry leaders at the Aerion Corporation and Boom Supersonic assert their aircraft will shave hours off transoceanic journeys. Both companies are working on solutions to reduce the fuel burn and noise impacts of supersonic flight.

The application of all these technologies vow to enhance the user experience and address some of the key issues that have historically plagued the transportation industry such as noise, greenhouse gas emissions, and an overwhelming dependance on fossil fuel. Whether traveling within urban environments via AAM or across the globe on a supersonic aircraft, future scientific discoveries may open a range of new possibilities in terms of moving through space by air. Like all technologies discussed in this section,

[32] https://www.alpa.org/-/media/ALPA/Files/pdfs/news-events/white-papers/white-paper-aviation-space.pdf

the widespread adoption of cutting-edge aviation applications necessitates a careful, coordinated, and intentional approach between public and private partners at every level. Careful planning will help mitigate impacts to existing system while supporting society's ability to maximize benefits such as improved mobility; lower costs; enhanced environmental sustainability; and reduced travel time at local, regional, and global scales.

4.6. FBO Pricing Transparency

FBOs offer a variety of services and amenities to support aircraft and their pilots and passengers. This can include fuel sales, aircraft parking, pilot and passenger lounges, flight planning areas, food and beverage options, Wi-Fi access, courtesy or rental cars, restrooms, and more. FBOs are either privately owned and operated or run by the airport sponsor. Many FBOs generate the largest portion of their revenue via fuel sales, which provide limited profit margins. Because fuel sales do not generate significant profits and to ensure that travelers do not use FBO facilities for free if not purchasing fuel, FBOs often charge "ancillary" fees for the use of their services and facilities. The fees charged by FBOs can vary depending on the location of the airport, scope of services offered, and amenities present. While these fees vary significantly, many pilots cite one common issue: lack of transparency. In some cases, pilots are unaware of fees being levied until he or she receives the final bill. In some cases, FBOs charge landing and ramp fees that are unknown to users until the landing has already taken place. This leaves little room for negotiation and can ultimately result in conflicts or lack of trust between FBO operators, pilots, and the airport sponsor. Users who feel deceived by an FBO may decide to conduct operations elsewhere and encourage other pilots to do the same via networking groups and online forums. This further reduces revenues to the FBO and airport sponsor and may lead to other on-airport tenants to move operations to an alternative airport with better relationships with the pilot community.

Members of the IASP TAC identified FBO pricing transparency as an issue across Illinois. Addressing this concern will improve the relationship between all parties and encourage pilots to return to an airport. This, in turn, generates additional revenues for the FBO and airport sponsor through sales that do occur, as well as visitor trips to nearby communities where additional economic impact is generated due to spending at local restaurants, retail shops, and other establishments.

4.6.1. FBO Fees

FBOs are a key component of the GA community and often provide critical aircraft support services for aviators. Many FBOs in the U.S. and in Illinois are small businesses who are active partners with the pilots and owners who depend on the services they provide. The website Airsport.com lists 74 FBOs operating at 51 airports in the state.[33] While companies such as Million Air and Signature Flight Support operate at airports across the U.S., many others operate at a limited number of airports within a specific region or have only one location. Unfortunately, not all companies follow best business practices—causing mistrust, frustration, and ripple effects that can spiral through the intricate GA aviation network. One stakeholder associated with private business travel identified "excessive fees imposed by airports and FBOs" is a top threat to the Illinois aviation system.

[33] http://www.airsport.com/fbo2.ihtml?state=IL&stname=Illinois

In one recent example, complex and expensive pricing structures at Signature Flight Support at Waukegan National Airport (UGN) led AOPA to file an FAA Part 13 complaint against the FBO.[34] Because the ramp was under the exclusive control of Signature Flight Support, AOPA alleged the company was preventing or restricting reasonable public access to the airport and surrounding community. One pilot received a $236 charge for parking a 4,000-pound aircraft on the ramp for two hours, which Signature reduced to $90 when he complained.[35] The FBO's reputation within the GA community had led some pilots to avoid Waukegan National Airport entirely. One pilot made a stop elsewhere after learning it would cost $55 to use the restroom unless he purchased a minimum of 10 gallons of fuel.[36] The AOPA complaint against Signature Flight Support catalyzed a number of changes at Waukegan National Airport. Airport management has since communicated the availability of free ramp parking for transient aircraft and a pedestrian gate that allows pilots and passengers to bypass the FBO entirely. Signature Flight Support also lowered the price of 100LL AvGas.[37]

4.6.2. Next Steps

To combat the problem of a lack of FBO pricing transparency AOPA began published FBO fees in the AOPA Airport Directory in June 2019. Pilots can now easily find FBO prices for all the items offered by FBOs at airports throughout the country. The directory lists 36 common fee types including deicing, ground power units (GPUs), aircraft handling, infrastructure, overnight aircraft parking, lavatory, security, and facility use. AOPA's Airport Directory is the first step toward a one-stop portal for pilots and FBOs in the quest for fee transparency at airports. AOPA has begun an industry-wide outreach campaign to FBOs across the country to encourage operators to publish their fees in the directory. AOPA encourages FBOs to voluntarily and proactively update their fees. As of this writing, 86 FBOs at Illinois system airports have FBO fuel and other fees published in the AOPA Airport Directory.[38]

Additionally, AOPA has developed "GA Industry Recommended Best Practices" for FBOs to provide the highest level of customer service and transparency.[39] The recommendations state that all FBOs should adopt the following communications best practices:

- Provide description of all available services and associated prices, fees, and charges
- Information should be posted online in a user-friendly format with sufficient clarity to allow pilots to make informed decisions
- Information should be made available as expeditiously as feasible
- Provide contact information so pilots can contact FBOs prior to arrival

Adopting these best practice and publishing prices, fees, and charges in the AOPA Airport Directory will help FBOs make major strides towards transparent pricing structures and improved relations with the GA community. Additionally, visibility increases competition amongst FBOs—leading to lower prices and increased airport activity levels. Airports will likely benefit from increased aircraft traffic, generating higher revenues and visitor spending economic impacts within their communities. To support these initiatives,

[34] https://www.aopa.org/news-and-media/all-news/2017/august/28/aopa-files-official-complaints-over-fbo-fees
[35] https://www.aopa.org/news-and-media/all-news/2017/august/28/aopa-files-official-complaints-over-fbo-fees
[36] https://www.aopa.org/news-and-media/all-news/2017/august/28/aopa-files-official-complaints-over-fbo-fees
[37] https://www.aopa.org/news-and-media/all-news/2017/december/21/waukegan-improves-transient-airport-access
[38] https://www.aopa.org/destinations
[39] https://www.aopa.org/-/media/Files/AOPA/Home/Advocacy/know-before-you-go/Know-Before-You-Go-Best-Communications-Practices-FBO.pdf

IDOT could consider partnering with AOPA and airports to encourage FBOs voluntary participation in these programs. IDOT can also incorporate transparent pricing best practices into grant assurances to ensure open and equitable access to Illinois's GA airports.

4.7. Fuel

Fuel availability is frequently a driving factor for pilots and aircraft owners when deciding where to base their aircraft or conduct transient operations. Fuel sales, either through an FBO or self-serve station, is one of the primary revenue streams at many airports. Airports that do not sell fuel typically have less access to revenue than those that do. Illinois recently enacted changes to fuel tax legislation to comply with FAA regulations and guidelines, which has effectively raised the cost of fuel. This issue, as well as a lack of 24-hour fuel availability across Illinois, were cited as top issues affecting aviation in the state.

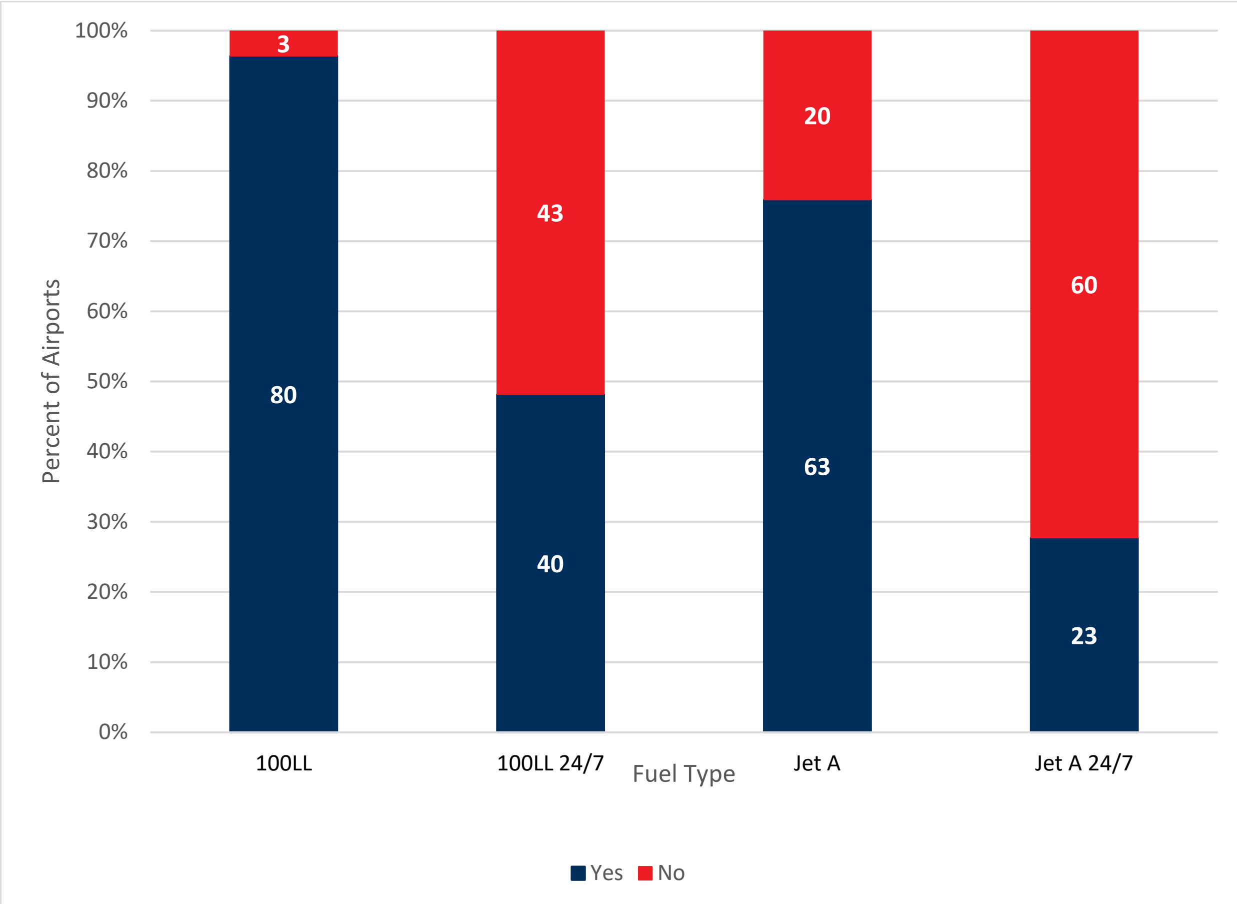
4.7.1. Fuel Availability

Twenty-four-hour fuel facilities offer an additional layer of safety for pilots who fly outside of normal business hours. This is particularly important for medical flight operators, corporate/business aviators, search-and-rescue providers, and other aviators whose schedules rarely align with an 9:00 AM – 5:00 PM business day. Additionally, 24-hour fuel allows an airport to generate revenue after FBO or airport operations staff have left for the day. In fact, the difference in revenue generated between airports with and without 24-hour fuel availability can be quite large. For example, one system airport that does not offer 24-hour fuel reported $76,056 in 2019 fuel sales of 100LL and Jet A combined. A peer facility with comparable operations and 24/7 fuel reported $157,914 in 100LL and Jet A fuel sales over that same period.

Twenty-four-hour fuel can be offered by a self-service station or offered on a call-out basis. Call-out services are provided when a pilot calls an on-duty staff member to the airport outside of normal business hours. While valuable if an aircraft has run out of fuel, call-out service can result in significant delays as the pilot waits for a staff member to arrive. Furthermore, delays can literally be a matter of life-or-death for emergency responders and air ambulance operators. In fact, one air ambulance operator in Illinois reported that a lack of 24/7 fuel facilities in Illinois has caused him to fly great distances to refuel during nighttime operations. In some cases, he is forced to fly out-of-state to access fuel.

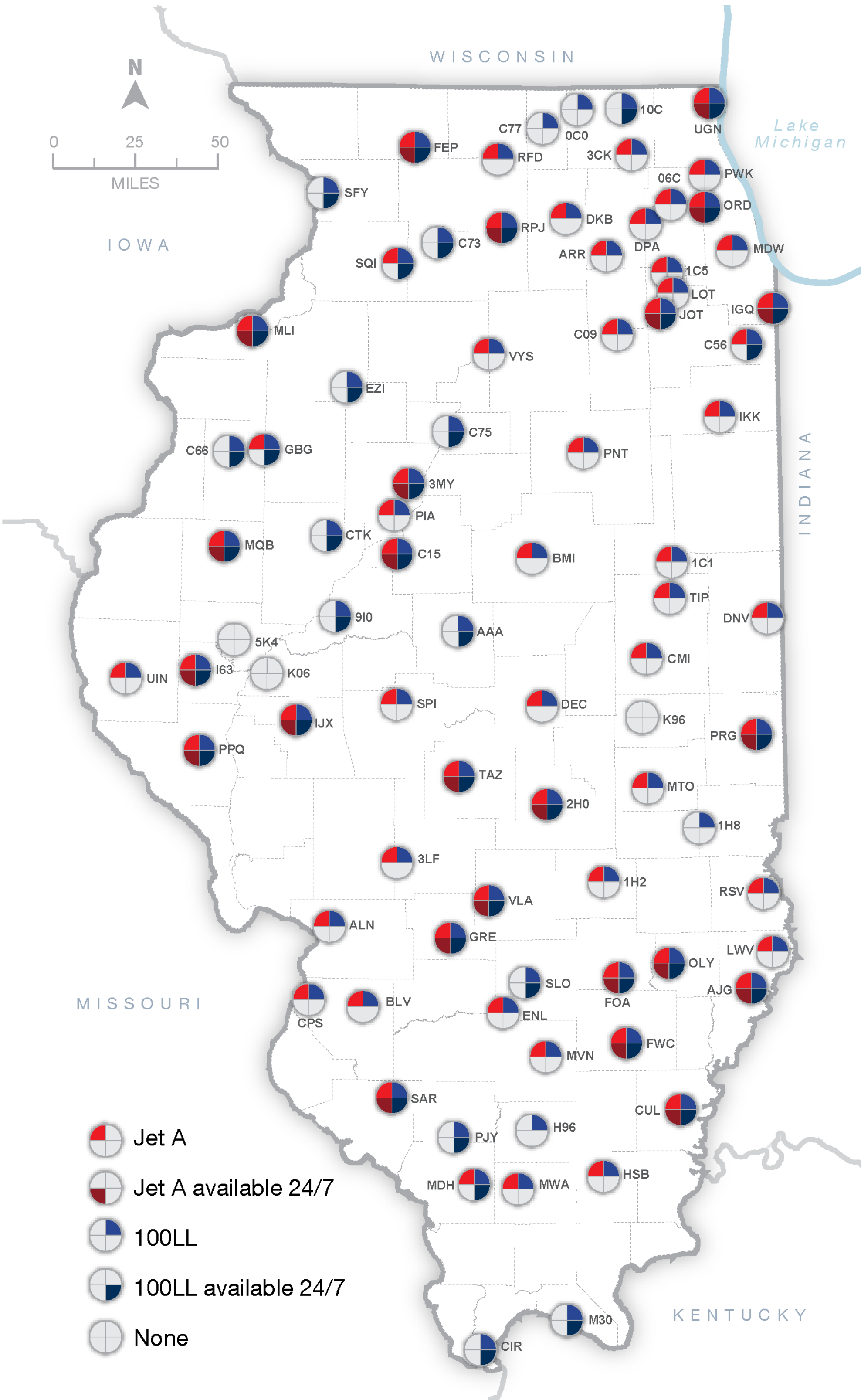
To better understand the pervasiveness of this issue, the IASP evaluated availability of 100LL, Jet A, or both fuel types at airports across the state. This analysis looked specifically at 24/7 fuel available via a self-service credit card reader. As shown in **Figure 4.9** this analysis revealed that while 96 percent of airports offer 100LL, only 48 percent of airports provide 24/7 access via credit card reader. Seventy-six percent of airports offer Jet A during business hours, while just 27 percent of airports offer Jet A 24/7 via self-service credit card reader. Fuel availability at Illinois airports is depicted in **Figure 4.10**.

Figure 4.9. Availability of 100LL and Jet A Fuel



Note: Data labels indicate number of airports.
Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

Figure 4.10. Fuel Availability at Illinois System Airports



Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

It is important to note that all airports do not require 24/7 fuel to provide adequate access for pilots, and a certain subset of facilities can provide 24/7 without impacting the safety of the airport system. To identify if specific geographic gaps may exist within Illinois, the IASP identified airports without access to 24/7 100LL within 30 nautical miles (NM), 24/7 Jet A within 50 NM, and airports that do not have access to either fuel type within these thresholds. Of the 43 airports without 24/7 100LL, seven facilities are farther than 30 NM from another airport that provides this service. Of the 60 airports that do not provide 24/7 Jet A, two facilities are farther than 50 NM from another airport that does provide this service. No airports are outside of the 30 NM threshold for 24/7 100LL and the 50 NM threshold for 24/7 Jet A. Airports that may represent in a gap in Illinois airport system in terms of access to 24/7 fuel are listed in **Table 4.13**.

Table 4.13. Airports without Access to 24/7 100LL Within 30 NM or Jet A Within 50 NM

Associated City	Airport Name	FAA ID	Fuel Type (NM Threshold)	
			100LL (30 NM)	Jet A (50 NM)
Alton/St Louis	St Louis Regional	ALN	✓	
Cahokia/ St Louis	St Louis Downtown	CPS	✓	
Champaign/ Urbana	University of Illinois-Willard	CMI	✓	
Danville	Vermilion Regional	DNV	✓	
Paxton	Paxton	1C1	✓	
Pontiac	Pontiac Municipal	PNT	✓	
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	✓	
Cairo	Cairo Regional	CIR		✓
Metropolis	Metropolis Municipal	M30		✓

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2020

4.7.2. Fuel Tax

Many aviation stakeholders identified high aviation fuel tax rates as one of the most significant constraints on the future of aviation in Illinois. Like many states, Illinois levies taxes on 100LL and Jet A aviation fuels. Taxes on aviation fuel sales have been issued by the State of Illinois at a rate of 6.25 percent in sales tax and $0.003 per gallon excise tax for both 100LL and Jet A fuel. The Illinois tax on fuel sales is coupled with other state-mandated taxes, such as those on underground fuel storage tanks at a rate of $0.003 per gallon stored, and an environmental impact fee of $60 per 7,500 gallons sold. As shown in **Table 4.14**, Illinois has the highest state sales tax levied against aviation fuel in the region.

Table 4.14. State Fuel Tax Rates (2020)

State	100LL AvGas	Jet A
Iowa	Excise: $0.08/gallon	Excise: $0.05/gallon
Illinois	Excise: $0.003/gallon Sales: 6.25%	Excise: $0.003/gallon Sales: 6.25%
Indiana	Excise: $0.1/gallon	Excise: $0.1/gallon
Kentucky	Excise: $0.23	Sales: 6.0%
Missouri	Excise: $0.09	Sales: 4.225%
Wisconsin	Excise: $0.06	Excise: $0.06

Sources: Energy Information Administration, 2020; AOPA, 2021

Additionally, local taxes can also be levied on top of state taxes provided those funds are used to support aeronautical activities. Local taxes range from 0 to 4.25 percent depending on location. Illinois's high fuel tax rate and associated higher costs of flying is of particular concern for GA airports that border other states. Some neighboring states have lower tax rates or no taxes on aviation fuel, driving pilots to fly to neighboring jurisdictions in other states to refuel. The manager of Cairo Regional (CIR) noted that one of the biggest issues facing the airport is "[t]rying to maintain competitive fuel prices with surrounding states." These concerns were echoed by Vermillion Regional (DNV), whose manager stated, "[b]eing so close to the Indiana border we are sometimes at a disadvantage with general business policy, such as taxes on fuel…as compared to Indiana."

4.7.3. Next Steps

State and local government play an active role in determining the tax rate for fuel sales, and as such can change the tax rate to be at a rate that is competitive with surrounding states while still maximizing revenue from the taxes. As one step in the right direction, Illinois Public Act 101-604 (effective January 1, 2021) exempted aviation fuel from all other local retailers' occupational taxes imposed by a local unit of government and administered by the Illinois Department of Revenue.[40] This effectively reduced local taxes on aviation fuel in three municipalities and four counties, as shown in **Table 4.15**. While taxes are still higher than some surrounding jurisdictions, these changes do reduce the taxes for pilots flying within these jurisdictions.

Table 4.15. Summary of Sales Tax Rate Changes for Aviation Fuel (Effective January 1, 2021)

Jurisdiction	Combined Rate Ending December 31, 2020	Rate Change	New Rate Effective January 1, 2021
Municipalities			
Galesburg			
North Seminary Street Business District	8.25%	-1.00%	7.25%
Outside Business District	7.25%	No change	7.25%
Mattoon			
Broadway East Business District	7.75%	-1.00%	6.75%
I-57 East Business District	7.75%	-1.00%	6.75%
South Route 45 Business District	7.75%	-1.00%	6.75%
Outside Business Districts	6.75%	No change	6.75%
Taylorville			
Taylorville Business District[1]	8.00%	-1.00%	7.00%
Outside Business District	7.00%	No change	7.00%
Counties			
Adams County	6.50%	-0.25%[1]	6.25%
Effingham County	6.50%	-0.25%[1]	6.25%
Macon County	6.75%	-0.50%[1]	6.25%
Peoria County	6.75%	-0.50%[1]	6.25%

Note: (1) This tax rate change is imposed countywide in both the incorporated and unincorporated areas of the county. The new combined rate listed is the rate in the unincorporated area of the county and in any municipality that does not have a locally imposed sales tax. Source: Illinois Department of Revenue, 2020

[40] https://www2.illinois.gov/rev/research/publications/bulletins/Documents/2021/FY2021-09.pdf

It is also important to note that all taxes imposed on aviation fuel must be used for aviation-related purposes in accordance with the FAA's Policy Concerning the Use of Airport Revenues, Proceeds from Taxes on Aviation Fuel. State and local taxes levied on aviation fuel are considered airport revenues. As such, these funds can only be expended for the capital or operating costs of the airport; the local airport system; or other similar aeronautical facilities directly related to air transportation. The state issued new guidance effective December 1, 2017 to comply with federal regulations. Before this change, some municipalities were using aviation fuel tax revenue to fund non-aviation related projects. Additional funds back to airports must now be used to fund capital projects and support operating expenses.

The availability of 24/7 fuel may warrant further investigation to understand pilots' specific concerns and to identify geographic areas that represent a particularly acute gap in the system. IDOT may also want to consider further investigating the feasibility of adding 24/7 fuel by self-service credit card reader to the airports highlighted in **Table 4.13**. Additionally, all future airport fuel facility development should consider the demand and inclusion of all available fuel types, including the latest developments in aviation fuel technologies. This includes SAF, as discussed in **Section 4.5.3**, as well as the potential future development of a lead-free alternative to 100LL (avgas) for piston-powered engines typical of certain types of GA flying. Avgas is the only lead-containing transportation fuel used in the U.S. and is a primary contributor to the relatively low levels of lead produced in the county. The FAA has partnered with the U.S. Environmental Protection Agency (EPA), engine manufacturers, and fuel producers to develop and deploy operationally safe alternatives to 100LL through the Piston Aviation Fuels Initiative (PAFI).[41] At the time of this writing in May 2021, a lead-free alternative to avgas has not been approved for use.

Additionally, the future arrival of electric- and hydrogen-powered aircraft may require the installation of additional airport infrastructure to support these new technologies, such as electric aircraft charging stations. In the long-term, the availability of electricity or hydrogen to power flight may become more important than access to conventional aviation fuels, particularly for short- and mid-distance travel. While this future scenario could bring numerous benefits in terms of environmental sustainability, cost stability, increased access to aviation services, and other considerations, fuel revenues to airports and the state could decrease unless alternative revenue production structures are established.

4.8. Growth of E-Commerce

Electronic commerce—more commonly referred to as "e-commerce"—refers to the buying and selling of goods or services using the internet. Over the past several years, e-commerce has redefined how many people in the U.S. purchase all manners of goods. Because e-commerce allows consumers to shop from the comfort of their home as opposed to traditional brick and mortar retailers, this trend has witnessed explosive growth during the COVID-19 pandemic. With more people than ever before comfortable and familiar with online purchasing, "virtual" shopping rates are not anticipated to abate even after COVID-19.

One of the major benefits of online shopping is the promise of near-immediate delivery. Driven by overnight and same-day delivery options offered by retailers, air cargo providers have witnessed significant upticks in demand. Historically used primarily for low-weight, high-value goods and perishables such as food and flowers, air cargo is now used to transport nearly all types of durable and nondurable

[41] https://www.faa.gov/about/initiatives/avgas/

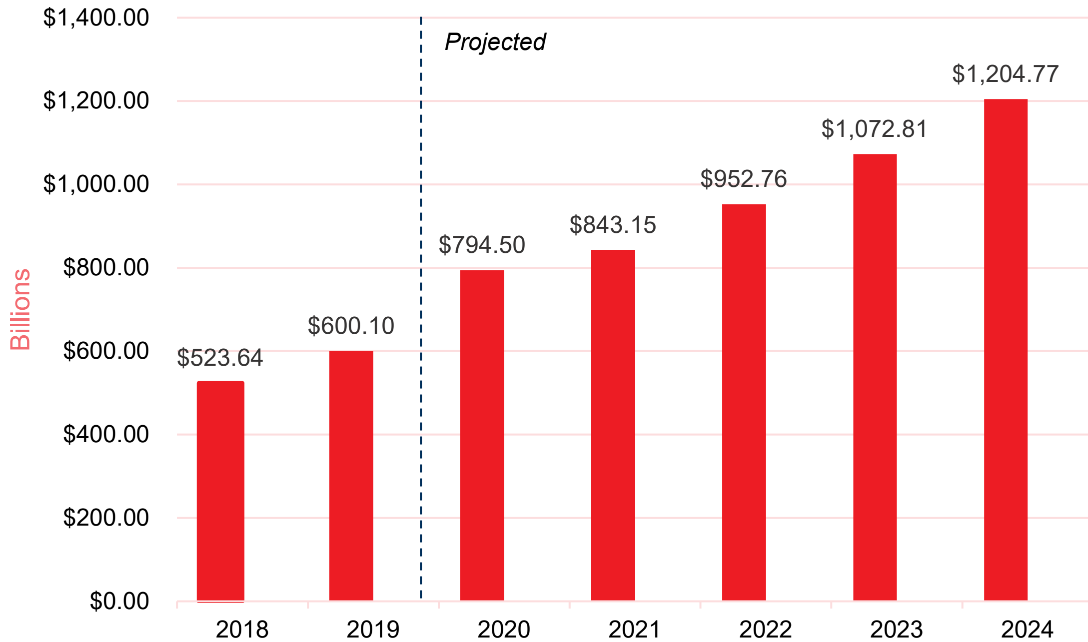
consumer products. With demand on the rise, the growth in e-commerce may have major implications for air cargo providers and the airports upon which they rely.

4.8.1. Impact of the Issue

While air cargo providers face stiff competition from alternative shipping modes such as trucks, container ships, and rail, retailers are increasing turning to air to meet consumer expectations. Major industry players such as Amazon, Walmart, and Apple compete to provide the fastest and most customer-friendly delivery experiences—creating a new type of "race to the bottom." Further, COVID-19 accelerated e-commerce growth in the U.S. in 2020, with online sales anticipated to reach a level not previously expected until 2022. According to forecasts prepared mid-2020 during the height of the pandemic, U.S. e-commerce sales were projected to reach $794.50 billion in 2020, up 32.4 percent compared to 2019. This would account for 14.4 percent of all U.S. retail spending in 2020 and 19.2 percent by 2024. Excluding gasoline and automobile sales, which are inherently difficult to sell online, e-commerce sales were expected to account for 20.6 percent of total U.S. retail spending by the end of 2020.[42] **Figure 4.11** depicts historic and projected growth of U.S. e-commerce sales from 2018 through 2023.

[42] https://www.emarketer.com/content/us-ecommerce-growth-jumps-more-than-30-accelerating-online-shopping-shift-by-nearly-2-years

Figure 4.11. U.S. Retail E-Commerce Sales, 2018 - 2024



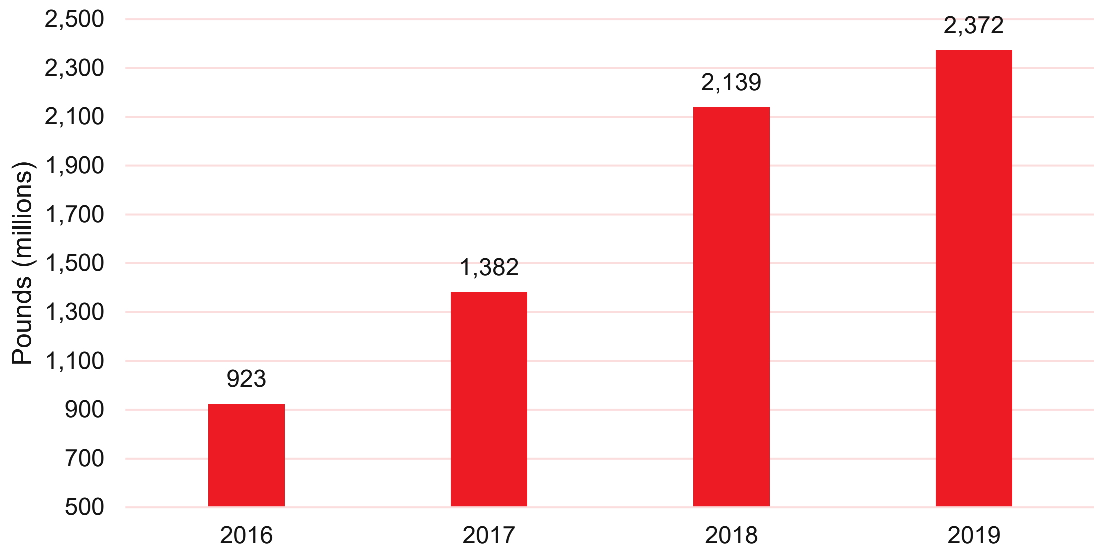
Source: eMarketer, October 2020

Chicago O'Hare International Airport (ORD), Illinois's largest airport by tons of cargo landed and the seventh largest in the nation by the same metric, witnessed a 6.15 percent increase in tonnage of cargo landed through September 2020 compared to the same time in 2019.[43] Air cargo operations, which are those conducted by dedicated all-cargo aircraft (as opposed to air cargo hauled in the bellies of passenger aircraft), were up nearly 22 percent in September 2020 as compared to the same month in 2019 to reach 21,604 cargo operations. Prior to the COVID-19 outbreak, the FAA had projected domestic cargo revenue ton miles (RTMs) to grow at an annual growth rate of 1.9 percent and international cargo RTMs to grow an average of 4.2 percent annually from 2020 through 2040.[44] The FAA may revise those figures in the forthcoming *Aerospace Forecast 2021 – 2041* based on the unexpected aviation trends of 2020.

Chicago Rockford International Airport (RFD) offers another illustrative example of the explosive growth in air cargo witnessed at some Illinois airports. The landed air cargo weight at Chicago Rockford International Airport (RFD) from 2016 to 2019 is depicted in **Table 4.11.** In 2017, 1.4 billion pounds of cargo arrived through airport, a 48 percent increase over 2016.[45] The airport continued to experience significant growth in the following years, with 2.1 billion pounds of cargo arriving in 2018 (54 percent year-over-year growth) and 2.4 billion pounds in 2019 (10.9 percent year-over-year growth). During this four-year period, RFD experienced 155 percent growth in landed air cargo weight.

[43] https://www.flychicago.com/business/CDA/factsfigures/Pages/airtraffic.aspx
[44] FAA Aerospace Forecasts, 2020 – 2040.
[45] https://www.ttnews.com/articles/amazon-poised-propel-cargo-business-illinois-rockford-airport

Figure 4.12. Chicago Rockford International (RFD) Landed Cargo Weight



Note: 2020 data is unavailable at this time of this writing. Source: FAA, 2020

In addition to an uptick in operations, e-commerce giants such as Amazon and logistics providers such as UPS and FedEx have moved to construct or expand air cargo facilities located at or adjacent to airports. These facilities support the transfer of goods between aircraft and ground transportation options (primarily trucks) responsible for the next segment of package delivery. Such expansion projects can quickly lead to significant congestion, overwhelm existing facilities, and push out other airport users. An airport's future expansion potential to support other aviation uses may similarly be constrained. Arterial and highway networks adjacent to and the vicinity of airports supporting air cargo operations can too experience congestion, leading to major traffic bottlenecks around airports. These traffic jams are not only frustrating for travelers but cost logistics providers millions of dollars annually as trucks and their drivers wait in traffic as they pick-up and drop-off freight and mail at airports.

E-commerce's boom could exacerbate the aviation workforce shortage, as more trained aviation professionals will be needed to meet the demand for air cargo. As Illinois airports like Chicago Rockford International Airport (RFD) continue to grow their presence as a hub for cargo, the already small pool of skilled workers will be even further strained to meet workload needs. However, with thousands of staff being furloughed or waitlisted by passenger airlines due to COVID-19, these concerns may be alleviated in the near- to mid-terms.

4.8.2. Next Steps

The current and potential impending demand for air cargo facilities may significantly impact capacity and congestion at airports in the coming years. IDOT should pay close attention to potential capacity- and congested-related concerns at airports with significant air cargo activities. Furthermore, it will be important to carefully balance passenger and cargo-related needs at the systemwide level to ensure all demands are met now and the years ahead.

4.9. PFAS

The availability of firefighting services either on or near the airfield is critical to ensuring the safety of people in the air and on the ground. Many larger GA airports and all commercial service airports have on-site aircraft rescue and firefighting (ARFF).[46] For many decades, AFFF containing PFAS have been used to extinguish fires and train firefighters in the airport environment. While AFFF are critically important to extinguishing petroleum-based fires, recent evidence has made the clear the discharge of AFFF containing PFAS presents an unacceptable risk to human health and the environment. Some progress has been made in the development and commercial adoption of AFFF free from PFAS. Additionally, the U.S. EPA has implemented new rules pertaining to AFFF manufacturing processes. Despite progress in these and other areas, airports continue to store and discharge PFAS-containing AFFF in a manner that falls short of recommended best practices. The risks associated with PFAS are becoming increasingly familiar to aviation professionals, and IDOT Aeronautics recognizes that managing PFAS-containing AFFF at Illinois airports must be addressed in the near-term.

4.9.1. Impact of the Issue

AFFF containing PFAS has been used extensively at airports throughout the world for decades to reduce risk of injury and death and damage to property in the event of petroleum-based fires. AFFF is applied during aircraft crashes and other incidents and often used in hangar fire suppression systems. While extremely effective in extinguishing fires, PFAS pose significant risks to human health and the environment. Exposure can lead to cancer; developmental defects; damage to multiple systems including the liver, thyroid, and immune system.[47] PFAS can travel long distances, permeate soil, seep into groundwater, and be carried through the air. The EPA has stated that any exposure to PFAS over 0.070 micrograms per liter (μg/L) or 70 parts per trillion (PPT), roughly equivalent to three drops of water in an Olympic swimming pool, in a lifetime can lead to significant health problems.[48] In 2018, the U.S. Department of Defense tested water near military airports for PFAS. Chanute Air Force Base near Paxton, Illinois, had an astronomical 806,000 PPT– well above the 70 PPT the EPA identified as toxic to human health. This tested also revealed that groundwater near Peoria International Airport (PIA) at 171,000 PPT of PFAS.[49]

At this time, U.S. airports are required to purchase firefighting foams that contain PFAS due to FAA regulations. As a result, airports have limited ability to remove PFAS from their facilitates entirely.[50] However, specialized discharge and containment equipment has recently been approved for use during testing exercises that allows FAA-compliant firefighting foam testing to occur without the need for regular foam discharges.[51] The FAA and some state departments of transportation including Colorado and

[46] All airports with Part 139 certification are required to have on-site ARFF capabilities.
[47] https://www.aviationpros.com/aoa/aircraft-rescue-firefighting-arff/article/21092898/the-evolving-concern-of-pfas-at-airports
[48] https://www.aviationpros.com/aoa/aircraft-rescue-firefighting-arff/article/21092898/the-evolving-concern-of-pfas-at-airports
[49] https://cdn3.ewg.org/sites/default/files/u352/Top%20100%20PFAS.pdf
[50] ACRP (2017). Report No. 173: Use and Potential Impacts of AFFF Containing PFAS as Airports. Available online at www.nap.edu/catalog/24800/use-and-potential-impacts-of-afff-containing-pfass-at-airports. p.1.
[51] https://www.codot.gov/news/2019/september/colorado-aeronautical-board-approves-funding-to-minimize-environmental-impacts-of-toxic-chemicals-in-firefighting-foam-at-colorado-airports

Michigan allow airports to use grant funds to purchase this equipment.[52] Furthermore, PFAS-free ARFF alternatives are currently under development and are being tested at airports in countries including Denmark, England, Germany, and Scotland.[53] While alternatives will be an important step in reducing the threat of severe environmental and human health impacts associated with PFAS, all firefighting foams have potential environmental impacts that must be carefully monitored and managed.

4.9.2. Next Steps

The issues surrounding PFAS are dynamic and expected to remain in flux for the near-term as state and federal regulators solidify guidelines and standards. Researchers will continue to develop PFAS-free AFFF as a safer alternative to existing technologies. At the national level, the EPA has made addressing PFAS an active and ongoing priority. In February 2019, the agency released the *PFAS Action Plan*, which outlines the agency's approach in addressing current PFAS contamination issues, preventing future contamination, and effectively communicating with the public.[54] Progress has been reported on all of these objectives, including the development of new tools and materials to communicate about PFAS. This latter point may be particularly germane in mitigating community health risks to populations adjacent to airports that deploy PFAS-containing firefighting foam. IDOT Aeronautics and airports should consider developing outreach tools and materials designed to effectively communicate complex information about PFAS to the specific populations in their vicinities. Such plans may need to apply principles of environmental justice to ensure all communities can access accurate, current, and clear information about PFAS.

In addition to national-level guidance and initiatives, the Illinois EPA launched its own investigation into the prevalence of PFAS in the state's drinking water at all 1,749 community water supplies in the state in September 2020.[55] The study is still underway, with the results being published online at https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/ pfas-statewide-investigation-network.aspx as they become available. The website includes an interactive dashboard and map. Airports can access this online resource to see if their airport is located near any community wells with identified PFAS concerns.

At the airport level, ACRP Report No. 173: *Use and Potential Impacts of AFFF Containing PFAS at Airports* provides a comprehensive resource about the use and risks associated with PFAS in airport environments. The study developed an accompanying screening tool to help airports adopt ARFF lifecycle best practices, identify and manage potential risks associated with historic and current AFFF use, and prioritize resources to address concerns related to AFFF and PFAS.[56] ACRP Report No. 173 also provides best practices pertaining to procurement, regulatory compliance, storage, applications, disposal, and identifying and addressing concerns related to legacy (i.e., past) usage. The ACRP report and associated PFAS screening tool are accessible online at www.nap.edu/catalog/24800/use-and-potential-impacts-of-afff-containing-pfass-at-airports.

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[52] https://www.uppermichiganssource.com/content/news/First-of-its-kind-grant-program-deploys-airport-firefighting-equipment-eliminating-possible-PFAS-exposure-pathway-560179681.html
[53] https://www.aviationpros.com/aoa/aircraft-rescue-firefighting-arff/article/21092898/the-evolving-concern-of-pfas-at-airports
[54] https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf
[55] https://www2.illinois.gov/Pages/news-item.aspx?ReleaseID=22078
[56] ACRP (2017) p.2.

4.10. Rebuild Illinois Bill

On June 28, 2019, Governor J.B. Pritzker signed a bill into law allocating $45 billion to fund infrastructure improvement projects over a period of six years.[57] The bill is anticipated to greatly improve and modernize Illinois transportation infrastructure including roads, bridges, rail, airports, and rail while creating 540,000 jobs and revitalizing communities. The first round of funding totaling $25 million was fast-tracked for release in May 2020 in response to COVID-19. IDOT Aeronautics is receiving $558 million over the six-year funding period. This additional $93 million per year will be tremendously beneficial for Illinois system airport and allow the state to fund additional projects, particularly those that are ineligible for federal funding through the AIP or lower priority for state-only dollars. The bill will allow the state to advance important planning, environmental, and engineering projects that will lead to aeronautic facility improvements. Along with airport development projects to maintain existing facilities and enhance capacity, funding can also be used to:

- Support revenue-enhancing projects such as fuel farms and hangars
- Improve and expand air cargo handling facilities
- Enhance multimodal connectivity and airport access
- Upgrade and modernize fire protection and security systems
- Purchase ground support vehicles including snow removal equipment and ARFF vehicles
- Acquire property for clear approaches and Runway Protection Zones (RPZs) and airside and landside development needs
- Advance airport sustainability and resiliency

The following section discusses the potential impacts of Rebuild Illinois, the state's largest-ever capital improvement plan.

4.10.1. Impacts of Issue

Rebuild Illinois funds will be allocated on an annual basis, and projects will be selected based on a review of priority maintenance and capacity enhancement needs. Funds from the bill have the potential to fix many outdated facilities and infrastructure throughout the state – including the aging infrastructure discussed in **Section 4.2**. Furthermore, this major influx of capital dollars could address many of the challenges identified by the IASP. A list of potential project types by issue includes but is not limited to:

Aging Infrastructure

- Address deferred maintenance needs and modernize existing airside and landside infrastructure
- Construct new and rehabilitate existing hangars
- Improve commercial service and GA terminals to enhance capacity and the user experience

COVID-19

- Remodel existing terminal facilities to meet COVID-19 social distance requirements

UAS and Commercial Space

- Support the development of space launch facilities at Illinois airports
- Install equipment that detects UAS activity in the vicinity of airports

[57] http://www.idot.illinois.gov/about-idot/stay-connected/blog/rebuild-illinois

Fuel

- Install 24/7 self-service fuel farms at priority locations

Growth of E-commerce

- Construct new or expand existing air cargo handling facilities
- Improve roadway access to airports to address traffic bottlenecks in the vicinity of airports

PFAS

- Modernize AFFF storage and distribution systems to ensure the highest level of safety and environmental protection
- Approve the use of state aviation funds to acquire firefighting foam testing devices that eliminate the discharge of toxic PFAS-containing ARFFs into the environment such as the Ecologic System manufactured by E-One or the Oshkosh ECO EPF

Runway Condition

- Extend runways at airports that regularly experience aircraft operations by aircraft that are larger than they were originally designed to support
- Construct or maintain crosswind runways based on a state-specific prioritization model

The IDOT Office of Intermodal Project Implementation defines the rules for project funding eligibility in the Policy and Procedure Manual, which outlines three parameters projects must adhere to in order to receive funding, including:

- Projects and land shall be included as a feature on an approved Airport Layout Plan (ALP)
- All environmental approvals must be completed prior to letting of the project
- Project must meet state bond funding rules

Beyond these state-mandated requirements, the funding prioritization will be at the discretion of IDOT. At the time of this writing in January 2021, no specific projects have been identified. It is important to note that Rebuild Illinois funds allow for vertical construction–unlike some other types of state and federal funding. This includes facilities that are critical to the user experience (e.g., terminals) and support revenue generate (e.g., fuel farms and terminal buildings). The state has a unique opportunity to not only improve the condition of airports today but to ensure the long-term viability of the system by supporting airport self-sufficiency, environmental sustainability, and resiliency.

4.10.2. Next Steps

One of the primary outcomes of the IASP is the development of a comprehensive statewide capital improvement plan (CIP). This CIP incorporates existing federal, state, and local airport projects with additional projects identified during the study. The study is also updating the state project prioritization model used to identify project for funding. The model is geared towards a refined priority rating system that improves efforts related to diversity, inclusion, and equity. In addition, recommendations presented in **Chapter 10** will consider how program prioritization can positively and negatively impact low income or minority populations. Rebuild Illinois funds will significantly enhance the state's ability to address all aviation-related needs in Illinois to ensure the system remains safe, reliable, efficient, and modern for many years to come.

4.11. Runway Condition

An airport's design is primarily driven by the operational and physical characteristics of the most demanding aircraft that generally operate at the facility (at least 500 operations per year). Many jets, for example, require a minimum 5,000-foot-long runway (or greater depending on the elevation of the airport and average maximum temperature) to safely accommodate take-offs, landings, and accelerate stop distances. Ensuring that an airport has runways of the proper length and capacity is critical for safe and efficient airport operations. Airport and aviation stakeholders most commonly identified the following runway-related issues as potentially hindering the operational capabilities of Illinois airports over the 20-year planning horizon of the IASP:

- Runway Length
- Crosswind Runways

4.11.1. Runway Length

Runway length has a direct correlation with the type of traffic that an airport is able to support. Airports with longer runways can accommodate more demanding aircraft. Most airport managers cited the importance of supporting jet traffic at their facilities, which generally requires at least a 5,000-foot-long runway. The presence of an airport that supports jets—particularly those that are used for business/corporate aviation—is an important indicator of the health of local and regional economies. Not only does business aviation support well-paying jobs, but passengers and pilots arriving by jet generate additional economic impacts by spending money in nearby communities. Longer runway lengths may draw new business tenants to an airport to provide services to aircraft, the people and passengers they support, or both. Furthermore, longer runway lengths are required for many aviation activities associated with the well-being of residents such as community access, medical flights, wildland firefighting, and certain types of search-and-rescue and law enforcement operations. All of these activities can result in higher fuel sales and revenue back to airports.

The need for longer runway length is an issue that was identified by 19 percent of IASP airports. For example, the manager of Ingersoll Airport (CTK) noted, "Currently our runway length is not adequate to allow growth. We need to get out to 5000 feet (or longer). We have the land required to extent Runway 18/36 to 6,500 feet if we could get funding." Approximately half of IASP airports have at least a 5,000-foot-long runway (41 airports). Some airports may be regularly experiencing operations by aircraft larger than they were originally designed to accommodate. Although this does not necessarily indicate a safety issue, these situations do warrant additional analyses to determine if facility improvements are warranted to accommodate such activity. To receive funding for a runway extension, an airport must justify the need based on current or projected five-year activity levels and have that extension depicted on an approved ALP. Evaluating current and forecasted future aircraft operations are components of the master planning process.

4.11.2. Crosswind Runways

Runway orientation is paramount to airport safety, efficiency, economics, and environmental impact. Because aircraft are designed to take-off into the wind, runway orientation should be oriented based on the direction of the prevailing wind. As described in FAA AC 150/5300-13A (consolidated change 1), *Airport Design*, a wind data analysis considers wind speed and direction based on existing and forecasted operations during visual and instrument meteorological conditions. Crosswind runways are recommended when the primary runway orientation provides less than 95 percent wind coverage, computed on the basis of the allowable crosswind component by Runway Design Code (RDC). The allowable crosswind component is provided in **Table 4.16**. Smaller aircraft have less ability to operate in windy conditions due to speed, power, and weight. As a result, the allowable crosswind component is less than at airports designed to support larger, heavier, and more powerful aircraft. Wind can be a contributing factor in small aircraft accidents.

Table 4.16. Allowable Crosswind Component per RDC

Runway Design Code	Allowable Crosswind Component
A-I and B-I*	10.5 knots
A-II and B-II	13 knots
A-III, B-III, C-I through D-III D-I through D-III	16 knots
A-IV and B-IV, C-IV through C-VI, D-IV through D-VI	20 knots
E-I through E-VI	20 knots

**Note: Includes A-I and B-I small aircraft. Source: FAA AC 150/5300-13A (consolidated change 1)*

Wind analyses are generally conducted using weather data for the previous 10-consecutive-year period in order to develop an accurate weather profile for the airport. Analyses should be developed based on the predominant use-period of the airport. For example, analyses can be conducted using seasonal data (e.g., winter/summer only), during daylight hours only, or using a combination of both factors (e.g., summer daytime only).

In general, the FAA does not fund the construction of new or maintenance of existing crosswind runways unless the primary runway does not meet the 95 percent wind coverage threshold. According the FAA's AIP Handbook, crosswind runways are "eligible if justified." Aviation stakeholders often cite this as a limitation to development, and many pilots would like crosswind runways constructed at nearly all airports to maximize use-periods and minimize any safety hazards associated with windy conditions. Several airports in the IASP identified the need for a crosswind runway as one of their top concerns. Currently 56 airports (67 percent) of system airports have a crosswind runway. This percent is higher than many other states, although perhaps this is not surprising for the home of the "Windy City."

When considering a crosswind runway, airports must account for the full implications of constructing an additional runway facility. Not only does the pavement require lifecycle care, but airports also become responsible for operating expenses. This includes mowing in the summer and plowing in the winter (if those time periods were included in the wind analysis justification). A plan would also have to be developed for the acquisition of RPZs through ownership or easements. The land required to develop a crosswind runway may better serve the long-term needs of the airport if developed in a manner that provides a revenue source back to the airport.

4.11.3. Next Steps

Proper runway planning and development is critical to the growth of airports and their ability to accommodate existing and future user demands. The need for runway extension and crosswind runway projects should be examined on a case-by-case basis to determine if needs are justified based on current and future capacity demands. Additional studies are warranted to determine if IDOT should provide additional state funding to support crosswind runways ineligible to receive federal dollars. In some cases, states have considered implementing state-specific crosswind runway prioritization criteria. Regardless of if funding is obtained from state or federal sources, any proposed runway improvement projects must be justified in the immediate- or near-term and shown on the airport's approved ALP.

4.12. Summary

The aviation industry is currently experiencing a unique and perhaps unprecedented time in its history. The COVID-19 pandemic has caused scheduled commercial service activity to plummet; air cargo operations to increase; and GA experience both upticks and downturns depending on the activity, geographic area, and other factors. Emerging technologies such as UAS, UAM, and commercial space travel may someday affect the very fabric of how goods and people travel not only globally but perhaps even intergalactically. At the same time, issues that have affected the aviation industry for many years continue to stress the system. The aviation workforce shortage, aging infrastructure, FBO pricing transparency, and runway conditions are enduring concerns for airports; the sponsors and managers that administer them; and the pilots, passengers, and other users who rely on them. The recent economic stimulus bills including the CARES Act, CRRSAA, and—most notably for Illinois—the Rebuild Illinois Bill provide an influx of funding to address many of the priority concerns identified by the state's aviation community. The state has the opportunity to develop a modern, safe, and efficient aviation system that overcomes the challenges of the past and sets the stage for an exciting new future. At the same time, funding must be backed by sound policies and guidelines to ensure development is intentional, based on sound fiscal and environmental policies, and recognizes any long-term implications for individual airports and the system. The subsequent analyses of the IASP provide this foundation by offering guidance to help IDOT and airports navigate this tumultuous time in aviation history to emerge stronger, more resilient, and better prepared to leverage the opportunities that lie ahead.

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Chapter 5. Multimodal Integration and Airport Access

5.1. Introduction

The overall function of an airport closely relates to other forms of transportation, enabling the safe and efficient movement of people and goods from one location to another. Most airport users, however, don't originate or terminate their movements at an airport – there are additional transportation modes that need to be utilized to reach their intended destination. For an airport to be effective for users, airports must provide the means for passengers and goods to be transported between the airport and destination. As a result, the Illinois aviation system must incorporate the statewide multimodal landscape into its scope to provide a more comprehensive picture of the overarching transportation system.

This inclusion of multimodal opportunities is also outlined within AC 150/5070-7, Change 1, *The Airport System Planning Process*, which highlights the need to evaluate aviation within the context of multimodal planning. Including an analysis of multimodal integration acknowledges that aviation and airport systems do not exist in their own environment and are impacted by external transportation factors.

This chapter details the multimodal transportation system in Illinois as well as how that system influences the state's aviation system. This chapter includes the following sections:

- Roadway Connectivity
- Multimodal Integration
- Illinois Freight Network
- Areas of Transportation Concern Specific to Airports
- Long-Range Planning and Transportation Improvements
- Summary

At the time of this chapter, the COVID-19 pandemic has dramatically transformed the global economy and created financial uncertainty throughout all levels of business. The global travel restrictions and quarantine mandates enacted by governments have significantly depressed nearly all air travel activity. These implications have extended beyond the Illinois airport system to include nearly all forms of multimodal activity in the state. One case of this is highlighted in **Section 5.5.1.6** describing the impact to rideshare services.

5.2. Roadway Connectivity

To access Illinois's aviation system from surrounding points of interest, residents, visitors, and truck freight operators primarily utilize the state's extensive network of roadways. Illinois has a combination of interstates, U.S. highways, state highways, county roads, and local roads available for users to connect with every airport in the state. To evaluate the current roadway connectivity for Illinois airports, a visual analysis was conducted using Google Maps and Google Earth geospatial tools. This included identifying and analyzing the nearest population center to each airport and the associated roadway linkages that directly or indirectly connect to each Illinois airport. The visual analysis only studied interstates, U.S. highways, or state routes, and did not include county and local or municipal roads. The roadways were identified as either being direct or indirect access. Direct access roadways were defined as roadways that provided immediate access to an airport premises via a driveway or airport access road – without the use of a secondary road. Indirect access roadways are all other interstates, U.S. highways, and state routes within the vicinity of an airport. Google Earth satellite view was used to identify the nearby interstates, U.S. highways, or state routes, and to determine the number of lanes on the roadway. Google Maps was used to determine distance from the airport to the relevant roadway. All distance measures were rounded to the nearest tenth of a mile.

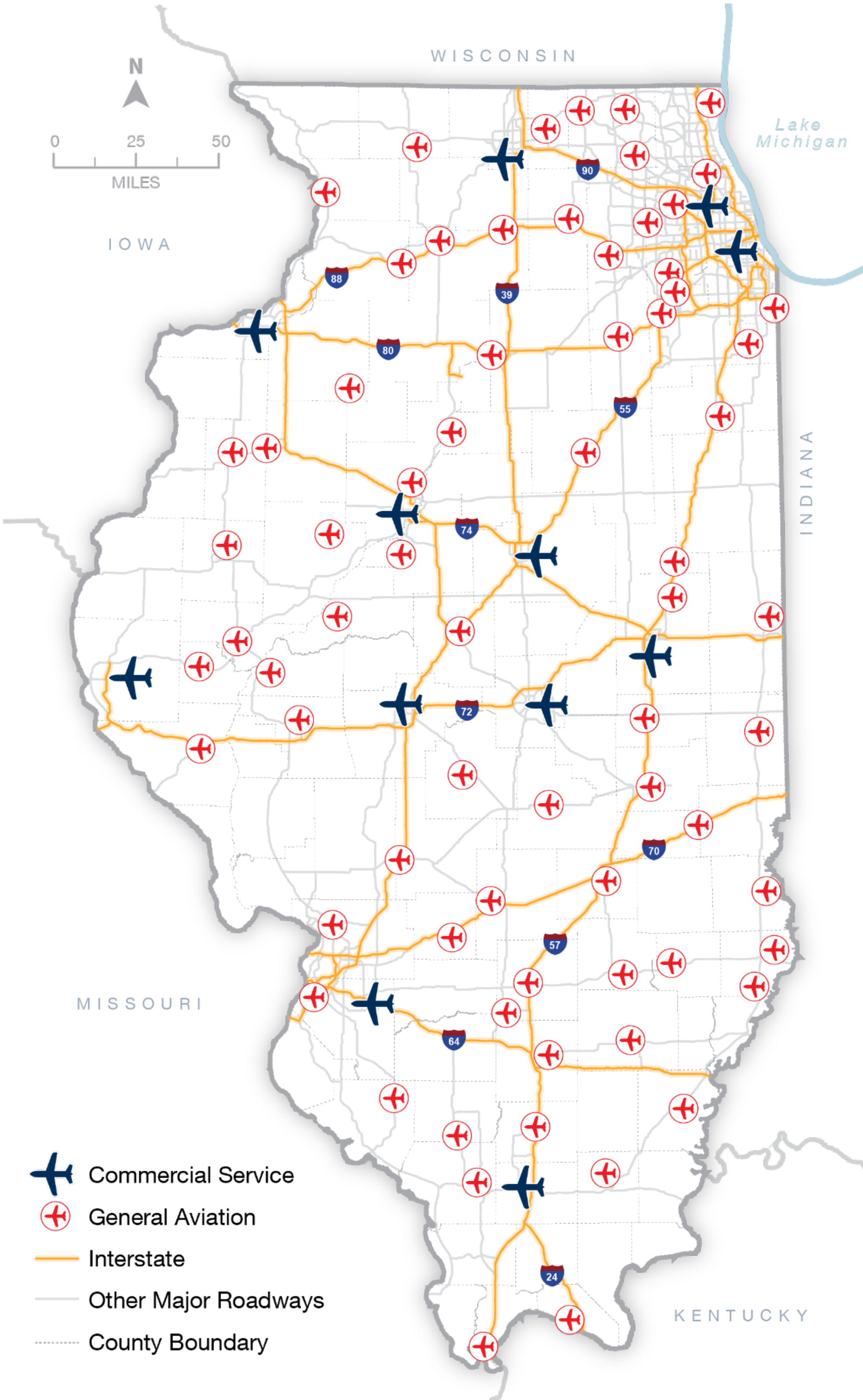
Illinois interstates, U.S. highways, and state routes account for 15,907 miles of roadway in the state.[58] These roadways are under the responsibility of Illinois Department of Transportation (IDOT) and the Illinois State Toll Highway Authority. Of these roadways, 2,185 miles are part of interstates serving Illinois. Based on the visual analysis conducted, there are a total of 18 different interstates that provide direct or indirect access to the airports within the Illinois system. These interstates include:

- Coast-to-coast routes: I-80 and I-90
- North-south corridors: I-39, I-55, I-57
- East-west corridors: I-24, I-64, I-70, I-72, I-74, I-88
- Auxiliary interstates serving Illinois's urban areas: I-355, I-255, I-190, I-294, I-280, I-474, I-172

Illinois's major roadway network is depicted in **Figure 5.1** Immediately following, **Table 5.1** provides a summary of the roadway connectivity analysis for each of the 83 airports identified in the 2020 IASP.

[58] IDOT. (2019). "2019 Illinois Highway and Street Mileage Statistics." (Accessed September 2020).

Figure 5.1. Illinois's Major Roadway Network



Sources: ESRI, Kimley-Horn 2020

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Table 5.1. Illinois Roadway Connectivity Table

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Commercial Service										
Belleville	Scott AFB/MidAmerica	BLV	Mascoutah	5.2	-	-	IL-4 (3)	I-64 IL-161	4 2	2 2.3
Bloomington/ Normal	Central IL Regional Airport at Bloomington-Normal	BMI	Bloomington	5.5	-	-	IL-9 (4)	I-55/74 US-150	4 4	7 4.1
Champaign/ Urbana	University of Illinois-Willard	CMI	Champaign	6.1	-	-	US-45 (4)	I-57 I-72 US-150	4 4 4	4.4 7.6 5.8
Chicago	Chicago Midway International	MDW	Chicago	11.0	-	-	IL-50(4)	I-55	6	2
Chicago	Chicago O'Hare International	ORD	Chicago	15.6	I-190 (6)	-	-	I-294 I-90 US-45	8 6 6	2 2.6 1.4
Chicago/ Rockford	Chicago/ Rockford International	RFD	Rockford	5.4	-	-	-	I-39 US-20 IL-2 IL-251	4 4 2 4	5.5 1.5 1 2
Decatur	Decatur	DEC	Decatur	4.7	-	-	-	US-36 IL-121 IL-105	4 4 4	0.8 0.8 1.4
Marion	Veterans Airport of Southern Illinois	MWA	Marion	5.0	-	-	IL-13 (6)	IL-148 I-57	4 6	.8 3

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Moline	Quad City International	MLI	Moline	4.5	-	US-6/I-74 (4)	-	I-280 US-150 IL-5	4 2 6	1 1 2
Peoria	General Downing-Peoria International	PIA	Bartonville	4.0	-	-	-	IL-116 I-474 US-24	2 4 4	1.4 1.5 3.2
Quincy	Quincy Regional-Baldwin Field	UIN	Quincy	11.9	-	-	IL-104 (2)	I-172/ IL-110	4	7.2
Springfield	Abraham Lincoln Capital	SPI	Springfield	4.9	-	-	IL-29 (4)	IL-4	4	0.7
General Aviation										
Alton/ St. Louis	St. Louis Regional	ALN	East Alton	3.4	-	-	IL-111 (4)	IL-140 IL-255	2 4	1 2
Beardstown	Greater Beardstown	K06	Beardstown	3.8	-	-	-	IL-125 US-67	2 2	2.3 4.1
Benton	Benton Municipal	H96	Benton	1.9	-	-	-	I-57 IL-14/34 IL-37	4 3 2	1.8 1.4 1.1
Bolingbrook	Bolingbrook's Clow International	1C5	Bolingbrook	3.7	-	-	-	IL-53 I-55 I-355	4 6 6	3.6 3.3 6.2
Cahokia/ St. Louis	St. Louis Downtown	CPS	Cahokia	3.0	-	-	-	IL-3 IL-157 I-255	4 4 6	1.8 2.5 3

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Cairo	Cairo Regional	CIR	Cairo	5.5	-	-	IL-3 (2)	I-57 US-51	4 4	2.5 2.1
Canton	Ingersoll	CTK	Canton	2.7	-	-	IL-9 (2)	IL-78	2	2.7
Carbondale/ Murphysboro	Southern Illinois	MDH	Carbondale	5.8	-	-	-	US-51 IL-13	2 4	2.8 2
Carmi	Carmi Municipal	CUL	Carmi	2.4	-	-	-	IL-7 IL-1/14	2 2	0.9 1.5
Casey	Casey Municipal	1H8	Casey	1.4	-	-	US-40 (2)	I-70 IL-49	4 2	1.5 0.7
Centralia	Centralia Municipal	ENL	Centralia	2.6	-	-	-	IL-161 US-51	2 4	0.7 2.2
Chicago	Lansing Municipal	IGQ	Lansing	2	-	-	-	US-30 IL-83	4 2	2.5 1.1
Chicago/ Aurora	Aurora Municipal	ARR	Aurora	8.3	-	US-30 (4)	-	IL-56 IL-47 I-88	2 2 6	1.7 2 5.5
Chicago/Lake in the Hills	Lake in the Hills	3CK	Lake in the Hills	2.9	-	-	-	US-14 IL-31	4 4	1.7 2.1
Chicago/ Prospect Heights/ Wheeling	Chicago Executive	PWK	Wheeling	3.1	-	US-45 (4)	-	IL-68 IL-21 I-294	2 4 8	2 1 1.7
Chicago/ Romeoville	Lewis University	LOT	Romeoville	6.1	-	-	IL-53(2)	I-55 US-30 IL-7/53	4 4 4	5.3 4.9 1.7

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Chicago/ Schaumburg	Schaumburg Regional	06C	Schaumburg	3.4	-	-	IL-19(2)	US-20 IL-390	6 6	2.5 1
Chicago/ Waukegan	Waukegan National	UGN	Waukegan	4.8	-	-	-	IL-131 IL-137	2 4	1.2 2.6
Chicago/ West Chicago	DuPage	DPA	West Chicago	3.0	-	-	-	IL-38 IL-64	4 6	1.8 1.4
Danville	Vermilion Regional	DNV	Danville	5.5	-	-	-	US-150 US-136 I-74	4 4 4	6.5 2 6.5
DeKalb	DeKalb Taylor Municipal	DKB	DeKalb	2.3	-	-	-	IL-38 IL-23 I-88/ IL-110	2 2 4	1.5 1.9 3.0
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	Dixon	1.7	-	IL-38(2)	-	US-52 I-88/ IL-110	2 4	1.4 3.5
Effingham	Effingham County Memorial	1H2	Effingham	3.8	-	-	-	US-45 I-57 I-70	2 4 4	0.7 3.4 6.9
Fairfield	Fairfield Municipal	FWC	Fairfield	2.6	-	US-45 (2)	-	IL-15	2	0.2
Flora	Flora Municipal	FOA	Flora	2.2	-	-	-	US-50 US 45	2 2	0.4 1.2
Freeport	Albertus	FEP	Freeport	4.6	-	-	-	IL-26 US-20	2 4	3 4.5

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Galesburg	Galesburg Municipal	GBG	Galesburg	3.3	-	-	IL-164 (2)	US-34 US-150 I-74	4 2 4	1.3 4 5.4
Greenville	Greenville	GRE	Greenville	5.6	-	-	IL-127 (2)	I-70 US-40 IL-143	4 2 2	3 3.5 4.6
Greenwood/ Wonder Lake	Galt Field	10C	Greenwood	0.5	-	-	-	IL-47 IL-120 IL-173	2 2	2.8 3.4 5.0
Harrisburg	Harrisburg-Raleigh	HSB	Harrisburg	5.5	-	-	IL-34 (2)	US-45	4	5.2
Harvard	Dacy	0C0	Harvard	2.1	-	-	-	IL-173 US-14	2 2	1 1.1
Havana	Havana Regional	9I0	Havana	7.6	-	-	-	IL-97 IL-78 US-136	2 2 2	0.8 5.6 7
Jacksonville	Jacksonville Municipal	IJX	Jacksonville	3	-	-	IL-78 (2)	US-67/ IL-104 I-72/US-36	4 4	4.7 7.0
Joliet	Joliet Regional	JOT	Joliet	7.0	-	US-52 (4)	-	I-55 IL-59 I-80	6 4 4	0.5 1.2 3.5
Kankakee	Greater Kankakee	IKK	Kankakee	5.1	-	-	-	US-52 I-57	2 4	1.1 2.4

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Kewanee	Kewanee Municipal	EZI	Kewanee	5.3	-	-	-	US-34 IL-93 IL-78	2 2 2	2.7 3.6 4.1
Lacon	Marshall County	C75	Lacon	1.2	-	-	IL-17 (2)	IL-26 IL-29	2 2	1.2 2.8
Lawrenceville	Lawrenceville-Vincennes International	LWV	Lawrenceville	6.5	-	-	-	US-50 IL-1 IL-33	4 2 2	3.7 5.6 7.0
Lincoln	Logan County	AAA	Lincoln	2.3	-	-	-	US-66 I-55 IL-10	4 4 2	0.6 0.9 1.9
Litchfield	Litchfield Municipal	3LF	Litchfield	1.5	-	-	-	IL-16 I-55	2 4	0.9 2.0
Macomb	Macomb Municipal	MQB	Macomb	5.0	-	-	-	US-67 IL-9 US-136	4 2 2	1.2 3.8 5.2
Mattoon/ Charleston	Coles County Memorial	MTO	Mattoon	5.1	-	-	IL-16 (4)	I-57 IL-316 US-45	4 2 2	2 2.5 5.5
Metropolis	Metropolis Municipal	M30	Metropolis	2.7	-	-	-	US-45 IL-145 I-24	2 2 4	1 4.5 5.3

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Monee	Bult Field	C56	Monee	5.7	-	-	-	IL-1/ IL-394 IL-50 I-57	2 4 4	4 4.7 5.6
Monmouth	Monmouth Municipal	C66	Monmouth	2	-	-	-	US-34 US-67	4 2	0.2 1.1
Morris	Morris Municipal-James R. Washburn Field	C09	Morris	5.1	-	-	IL-47 (4)	I-80 US-6 US-52	4 2 2	2.4 2.9 5.8
Mount Carmel	Mount Carmel Municipal	AJG	St. Francisville	5.8	-	-	-	IL-1	2	1.6
Mount Sterling	Mount Sterling Municipal	I63	Mount Sterling	3.2	-	US-24 (2)	-	IL-99	2	2.9
Mount Vernon	Mount Vernon Outland	MVN	Mount Vernon	3.2	-	-	IL-15 (2)	IL-37 IL-142	2 2	3.1 3.8
Olney-Noble	Olney-Noble	OLY	Noble	3.3	-	-	IL-250 (2)	US-50 IL-130	2 4	1.6 4.9
Paris	Edgar County	PRG	Paris	7.1	-	-	-	US-150 US-36 IL-133/ 16	2 2 2	0.9 7.2 7.5
Paxton	Paxton City	1C1	Paxton	1.6	-	-	IL-9 (2)	I-57 IL-115 US-45	4 2 2	0.8 2.8 1.4
Pekin	Pekin Municipal	C15	Pekin	6.2	-	-	IL-29 (2)	IL-9 US-24	4 4	7.0 7.8

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Peoria	Mount Hawley Auxiliary	3MY	Peoria	7.5	-	-	IL-40 (4)	IL-6 US-150 IL-29 I-74/474	4 4 4 4	1.0 5.2 5.0 7.4
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	Peru	2.8	-	-	-	I-80 IL-251 IL-6	4 4 2	1.3 2.4 4.3
Pinckneyville	Pinckneyville-Du Quoin	PJY	Pinckneyville	7.4	-	-	IL-13/IL-127 (2)	IL-152	2	1.8
Pittsfield	Pittsfield Penstone Municipal	PPQ	Pittsfield	2.5	-	US-54 (2)	-	IL-106 I-72/US-36	2 4	2.5 2.7
Pontiac	Pontiac Municipal	PNT	Pontiac	3.4	-	-	-	IL-23 I-55 US-66	2 4 2	1.4 1.6 1.7
Poplar Grove	Poplar Grove	C77	Poplar Grove	4.5	-	-	IL-76 (2)	US-20 IL-173	2 2	3.4 3.5
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	Rantoul	1.1	-	-	-	US-45 US-136	4 4	0.8 1.1
Robinson	Crawford County	RSV	Palestine	2.1	-	-	IL-33 (2)	IL-1	2	2.9
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	Rochelle	2.3	-	-	IL-251 (2)	I-88/IL-110	2	1

Associated City	Airport	FAA ID	Nearest Downtown		Direct Access Roadway(s) (no. of lanes)			Indirect Access Roadway(s)		
			City/Town	Miles from Airport	Interstate	U.S. Hwy	State Route/ Hwy	Major Roadway	No. of Lanes	Miles from Airport
Rushville	Schuy-Rush	5K4	Rushville	1.9	-	-	-	US-67 US-24	2 2	1.1 1.3
Salem	Salem-Leckrone	SLO	Salem	2.5	-	-	-	US-50 I-57	4 2	1.5 2.6
Savanna	Tri-Township	SFY	Savanna	4	-	-	IL-84 (2)	US-52/IL-64	2	3.2
Shelbyville	Shelby County	2H0	Shelbyville	2.9	-	-	IL-16 (2)	IL-128	2	1
Sparta	Sparta Community-Hunter Field	SAR	Sparta	1.6	-	-	IL-4 (2)	IL-154	2	1.7
Sterling/ Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI	Rockfalls	2.6	-	-	IL-40 (2)	IL-110/I-88 US-30 IL-172	4 2 2	1.4 1.9 4.2
Taylorville	Taylorville Municipal	TAZ	Taylorville	2.5	-	-	-	IL-48 IL-104	2 2	0.9 2.5
Tuscola	Tuscola	K96	Tuscola	2.3	-	-	-	US-36 US-45	2 2	0.7 1.3
Vandalia	Vandalia Municipal	VLA	Vandalia	5.2	-	-	-	IL-185 I-70	2 4	2.6 3.0

Sources: Kimley Horn, 2020; Kaplan Mello, 2020

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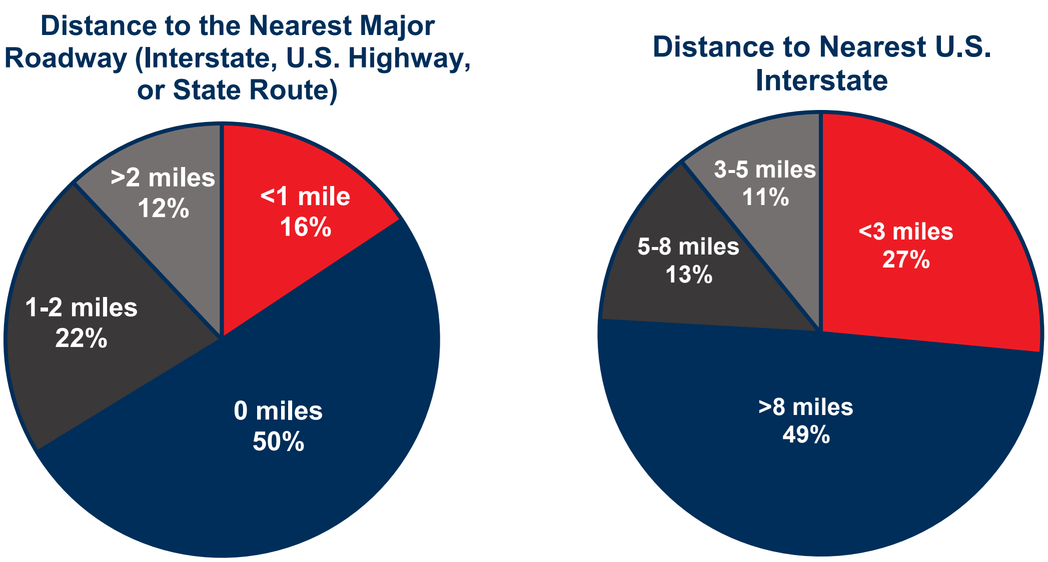
5.2.1. Distance to Major Roadways

Figure 5.2 summarizes airport roadway connectivity by proximity to major roadways including interstates, U.S. highways, and state routes. The analysis shows that 88 percent of airports have access to at least one major roadway within two miles or less. Approximately 50 percent of Illinois airports have direct access (0 miles) to major roadways. This includes 75 percent of all Illinois commercial service airports and 46 percent of all Illinois general aviation airports. Airports that do not directly connect with a major roadway are connected by short distances over county or city roads. Sixteen percent of airports have indirect access to major roadways within one mile, while 22 percent of airports are accessible to major roadways located between one and two miles away. Twelve percent of airports have indirect access to roadways more than two miles away.

The analysis also reveals that 27 percent of airports are located within three miles of one of the 18 interstates that traverse Illinois. Another 11 percent of airports are located between three and five miles from the nearest interstate, while 13 percent of airports are between five and eight miles. Approximately 49 percent of airports are located more than eight miles away from the nearest interstate. Chicago O'Hare International (ORD) is the only airport with direct access to an Interstate (I-190). However, as previously noted, the other airports in the state are still well-connected via U.S. and state roadways.

Figure 5.2. Proximity of Illinois Airports to Major Roadways including Interstates



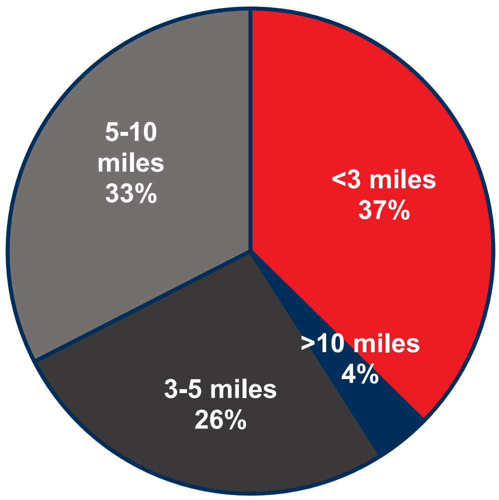
Sources: Google Maps and Google Earth, 2020

5.2.2. Proximity to Downtowns

Air travel is an appealing transportation alternative for businesses and recreational pilots as it provides important time savings and added convenience when traveling between communities. Often times, pilots and business travelers choose the nearest airport to their final destination, so it is critical that airports be conveniently located near the population and economic centers that they serve to facilitate quick and easy access for airport users. Most of Illinois's public-use airports are located within close proximity to a downtown area. **Figure 5.3** summarizes the distances between Illinois system airports and the nearest downtown.

As demonstrated, 37 percent of IASP airports are located less than three miles from the nearest downtown area, which includes only GA airports. Another 26 percent of airports sit between three and five miles away from the nearest downtown, while 33 percent of airports are located between five and 10 miles of the nearest downtown area. Four percent of airports are located more than 10 miles from the nearest downtown area. This proximity is applicable to three commercial service airports and no general aviation airports.

Figure 5.3. Proximity of Illinois Airports to Downtowns



Sources: Google Maps & Google Earth, 2020

5.3. Multimodal Integration

Multimodal integration within the context of airports is critical for enabling inbound and outbound passengers to access the airports and surrounding region(s). Because of this significance, the 2020 IASP analyzed the existing roadway connectivity to Illinois's 83-airport system. Roadway systems are used by a variety of vehicles including cars and trucks, but there are also other roadway related transportation options. A comprehensive review was conducted of the diverse multimodal options available among the Illinois airport system. This includes the availability and connectivity of rental cars, courtesy cars, taxi services, shared mobility, public transit, and shuttle services.

5.3.1. Rental Cars

The availability of rental car service provides the option for arriving passengers to travel to their destination independently without relying on public transportation. Distinguishing itself from other immediate modes of airport transportation, rental cars provide the greatest amount of travel flexibility with the ability of time, destination, routing, and vehicle type to be placed at the user's discretion. In turn, rental car service at airports allow for greater contribution toward state and local economic activity. Data indicating the total availability of on- and off-site rental car service within the Illinois airport system was collected through the 2020 IASP airport inventory and data forms. Out of the 83 airports in the Illinois system, 20 of the airports reported having on-site rental car service available to users. These airports with on-site rental car service include 11 commercial service airports and nine general aviation airports.

Additionally, a total of 55 airports in the Illinois system indicated having off-site rental car service available to users. These include nine commercial service airports and 46 general aviation airports.

5.3.2. Courtesy Cars

Courtesy cars provide a critical link between airports and communities, especially in areas that may not be able to support rental car operations and other transportation modes. Courtesy cars enable pilots and airport visitors to quickly and easily travel to the local community for meals, meetings, entertainment, and recreation. Courtesy vehicles are often owned and maintained by the airport sponsor or the fixed-base operator (FBO) and are typically stored at the airport terminal building. Often times, courtesy cars are free for use by airport visitors, however, there is an unwritten agreement that those who use the vehicle return it in good condition with a full tank of gas. Airport sponsors provide the keys to users upon request or keep the keys in a lockbox at the airport when the facility is unattended. Data from the 2020 IASP airport inventory and data forms indicates that 70 of the 83 airports included in the IASP have courtesy cars available.

5.3.3. Taxi Service

For many smaller communities without other modes of transport, the existence of taxi services provides the sole service for airport users to connect with the immediate area. Despite the emergence of other ground transportation modes at larger airports (transit, shared mobility, rental cars), taxi services continue to provide conventional connectivity access. Within high-population areas, taxis still serve as a link from the airport to the city center and the greater metropolitan area. According to the 2020 IASP airport inventory and data forms, a total of 56 airports reported having accessible taxi service (67 percent). And among these airports, 11 are commercial service airports and 45 are general aviation airports.

5.3.4. Shared Mobility (Rideshare, Bikeshare, and Scootershare)

Over the past several years, shared mobility has transformed the transportation landscape. This came about through the emergence of a bold new concept: crowdsourcing transportation access from existing users through “shared mobility” (commonly referred to as rideshare). Instead of each user owning their own car, bike, or scooter, these vehicles are shared amongst a large user base. This model was pioneered by transportation network companies (TNCs) like Uber and Lyft to leverage their driver’s private vehicles to provide rides to other users. Shared mobility has gained a lot of traction with the public and has subsequently grown its’ service network to include airports. However, the growth of shared mobility has created several new challenges for airports which are discussed further in **Section 5.5.1.** According to the 2020 IASP airport inventory and data forms, a total of 40 airports reported having some form of shared mobility available.

As rideshare services have evolved, both Uber and Lyft have further improved their services to not only provide users with a ride using another user’s vehicle, but to also allow for shared carpooling. Uber has branded their carpool service as “UberPool” while Lyft has branded their service as “Shared.” In these rideshare carpools, users can further share their ride with other users traveling in the same direction. This allows TNCs such as Uber and Lyft to achieve higher occupancy levels per trip. Using these services is enticing for users as it further reduces the cost of their commute as everyone in the carpool pays an equitable share for the trip.

Ridesharing services have resonated so well with the general public that the scope has expanded into other vehicle types. These include utilizing bikes and scooters in a similar shared format. However, the service areas of these vehicle modes are limited to select cities. "Bikeshare" systems are currently available in Chicago, Champaign, and Canton. And subsequently, "scootershare" systems are currently available only in Chicago and Champaign. However, these two services are gaining popularity and expanding in service areas.

5.3.5. Public Transit (Buses, Light Rail and Commuter Rail)

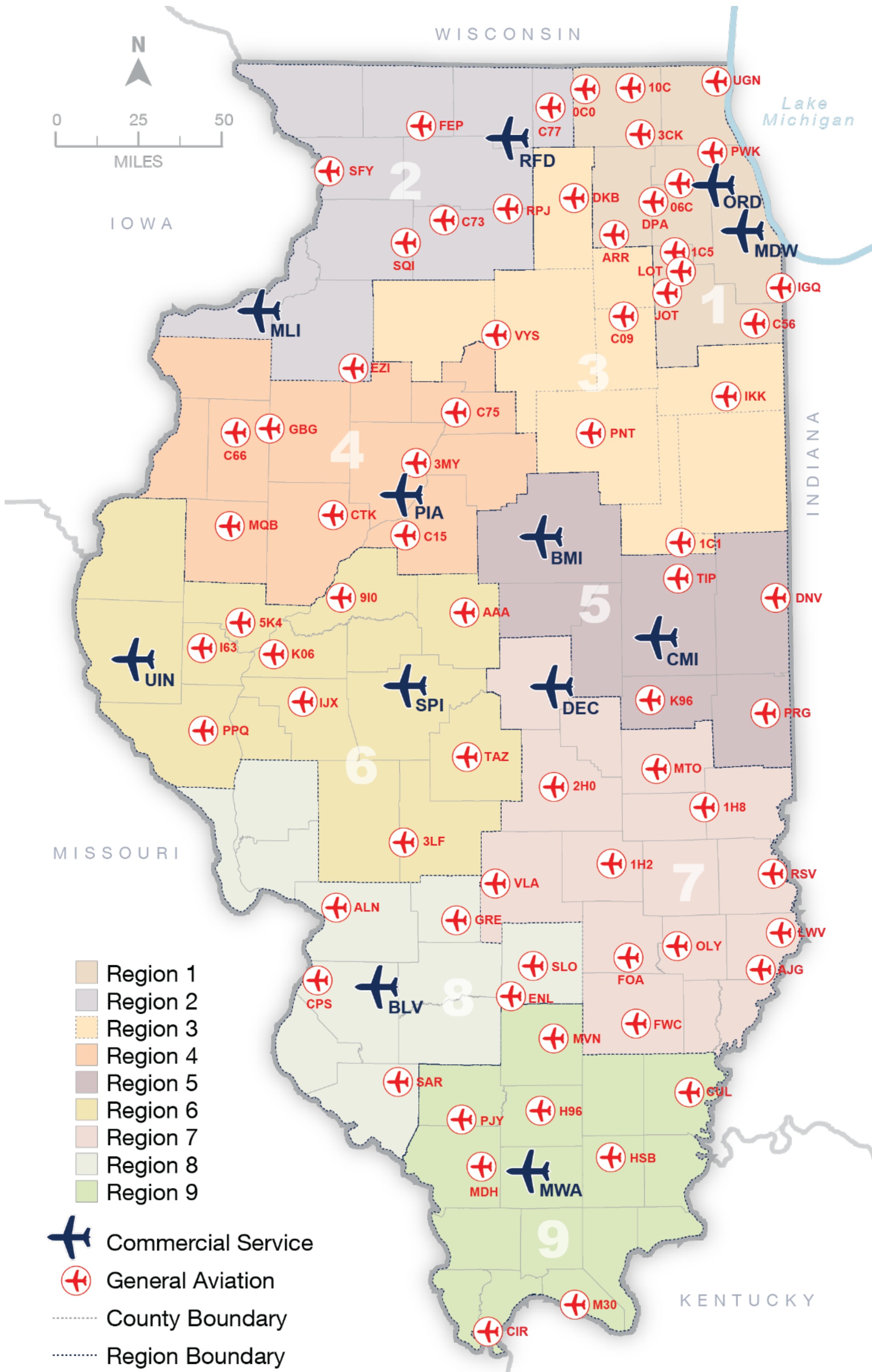
Public transportation (also referred to as "transit") incorporates several modes of transport including buses, light rail, and commuter rail. Transit systems greatly improve the accessibility of a community or metropolitan area and provide cost-effective and environmentally friendly transportation to all residents and visitors. Public transit usually offers lower user fares compared to rental cars, taxis, and shared mobility systems and provides short-, medium-, and long-distance transportation while reducing congestion on roadways. As such, public transit systems are often promoted as the preferred mode of transportation for visitors and residents when traveling in communities and metropolitan areas. Additionally, public transit systems that directly connect to other modal transport facilities such as airports, heavy rail stations, and ferry terminals dramatically improve the multimodal transport capabilities of a community. It should be noted, however, that the preferred mode of transit varies throughout these facilities based on the needs of the airport user. Airports that have direct public transit capability provide added convenience as they allow visitors to quickly and easily access the local community from the airport.

According to IDOT data, there are 63 public transit agencies across Illinois, serving communities in 96 of the state's 102 counties. Of these organizations, 61 agencies provide varying types of bus service including fixed route service, demand-response service, complimentary ADA and paratransit services, and vanpool services. Two agencies provide a combination of light rail and bus service, while one agency provides commuter rail service. The largest of these agencies is the Chicago Transit Authority, which transports more than 545 million riders per year connecting to ORD and Chicago Midway International (MDW).[59]

Figure 5.4 presents the 12 regions defined by the Illinois Human Service Transportation Plan (HSTP) and the commercial service airports that have direct access to public transit systems. Additionally, **Table 5.2** summarizes the public transit agencies in Illinois in each HSTP region and the types of area they serve. All 12 regions provide direct access to bus service and two provide additional light and commuter rail service.

[59] IDOT. (n.d.). "Transit System." Available online at http://idot.illinois.gov/transportation-system/Network-Overview/transit-system/index. (Accessed August 2020).

Figure 5.4. Illinois Human Service Transportation Plan Regions



Sources: Champaign County Regional Planning Commission, 2019; Kimley-Horn, 2020

Table 5.2. Illinois Public Transportation Agencies

HSTP Region	Rural Transit Agencies	Urban Transit Agencies
1	Boone County Council on Aging, Carroll County Transit, Jo Daviess County Transit, Pretzel City Area Transit	Rockford Mass Transit District, Stateline Mass Transit District
2	Henry County Public Transportation, RIM Rural Transit, Whiteside County Public Transportation	MetroLink – Rock Island County Metropolitan Mass Transit District
3	Bureau-Putnam Area Rural Transit, Lee-Ogle Transportation System, North Central Area Transit	Grundy Transit System, Voluntary Action Center, Kendall Area Transit, Northern Illinois University Huskie Bus Lines
4	Hancock County Public Transportation, McDonough County Public Transportation, Quincy Transit Lines, Warren County Public Transportation, Go West Transit, West Central Mass Transit District	
5	Fulton County Rural Transit, Marshall-Stark Transportation, We Care, Inc., County Link	Central Illinois Agency on Aging, CityLink – Greater Peoria Mass Transit District, Galesburg Handivan, Galesburg Transit
6	SHOW BUS Public Transportation	Connect Transit, River Valley Metro Mass Transit District
7	SHOW BUS Public Transportation, West Central Mass Transit District	Central Illinois Public Transportation, Sangamon Mass Transit District, Sangamon/Menard Area Regional Transit,
8	Coles County Council on Aging, Piattran, SHOW BUS Public Transportation	Central Illinois Public Transportation, C-CARTS, Champaign-Urbana Mass Transit District, CRIS Rural Mass Transit District, Danville Mass Transit, Decatur Public Transit System, RIDES Mass Transit District
9	Bond County Transit, FAYCO Enterprises, Inc., Tri-County Rural Transit, Macoupin County Public Transportation, South Central Illinois Mass Transit District	Central Illinois Public Transportation, Madison County Transit
10		Central Illinois Public Transportation, RIDES Mass Transit District, Effingham County Public Transit
11	South Central Illinois Mass Transit District	RIDES Mass Transit District
Chicago		Chicago Transit Authority (CTA), Hanover Township, Metra, Pace Suburban Bus, Regional Transportation Authority, Rich Township Transportation

Sources: Illinois Public Transportation Association, 2018; Champaign County Regional Planning Commission, 2019

5.3.5.1. Light and Commuter Rail

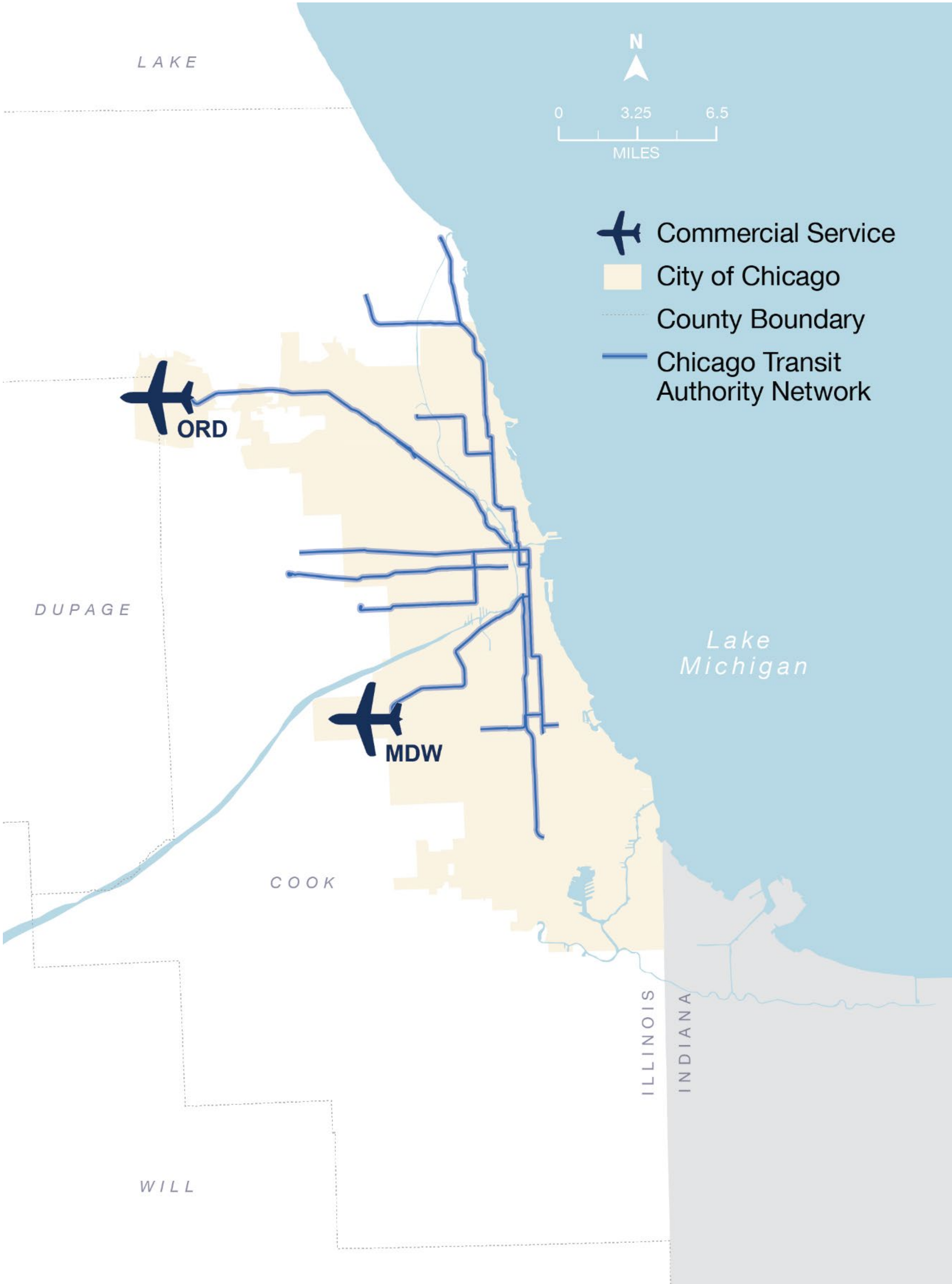
Light and commuter rail networks provide further connectivity in communities and regions while aiding to reduce road congestion. Light rail systems usually offer inner-city transportation within the central business district and surrounding areas while commuter rail networks connect city centers to suburbs and outlying communities in the metropolitan area.

According to IDOT data, there are three public agencies that provide light or commuter rail service in Illinois. The Chicago metropolitan area is served by two agencies: the Chicago Transit Authority (CTA) and Metra. The CTA offers light rail service in downtown Chicago and to multimodal transportation hubs including ORD and MDW, while Metra provides higher-speed commuter rail service between the city center and the outer reaches of the Chicago metropolitan area. The third rail service provider in Illinois is MetroLink which offers light rail service in the St. Louis metropolitan area. MetroLink is contracted by the St. Clair County Transit District and provides service to Swansea, Belleville, Shiloh, and Scott Air Force Base, which is collocated with Scott AFB/MidAmerica (BLV). However, MetroLink does not provide direct rail access to the civilian portion of the airport.[60]

Information collected from the 2020 IASP airport inventory and data forms indicates that three airports (ORD, MDW, BLV) have light or commuter rail access available to users. The network of light and commuter rail service provided by CTA in the Chicago metropolitan area is shown in **Figure 5.5.**

[60] Metro. (N.d.) “MetroLink Station Schedules.” Available online at: https://www.metrostlouis.org/metrolink-schedule/ (Accessed August 2020).

Figure 5.5. Chicago Transportation Authority Light Rail Network



Sources: ESRI, Kimley-Horn, 2020

5.3.5.2. Intercity Transportation

Illinois is served by several private intercity bus and passenger rail operators that offer interregional transportation between cities and communities. These bus services provide an alternative form of connectivity between cities that are unable to support commercial air service. According to the Champaign County Regional Planning Commission, there are eight private intercity bus operators that serve 32 cities across Illinois.[61] Additionally, Amtrak provides heavy passenger rail service between Illinois cities of Chicago, Carbondale, and Quincy, and St. Louis, Missouri.[62] Although these transportation networks provide service to communities with airports, they usually do not offer direct access to airports. As such, users of these services must use another mode of transportation to access airports. However, one bus operator provides direct access to ORD and MDW from the cities of Rockford and South Beloit, as well as a dozen cities in southern Wisconsin. There are nine passenger rail stations in Illinois that offer multimodal connections with intercity and local rail or bus service including Chicago Union Station, Homewood, Joliet, the Champaign Illinois Terminal, and the Carbondale Multimodal Station.[63]

5.3.6. Shuttles

Shuttles often provide access between off-site hotels, rental car operations, parking lots, and the airport terminal or FBO. Hotels, parking lots, and rental car operators often provide shuttle transport between the airport and their facilities as a complimentary service for customers. Twenty IASP airports reported having shuttle service according to the 2020 IASP airport inventory and data forms.

5.3.7. Summary

Table 5.3 provides a tabular and visual summary of the multimodal integration of 2020 IASP airports. Three airports indicated that no other modes of transportation were available for airport users. These airports are listed below:

- Beardstown – Greater Beardstown
- Cairo – Cairo Regional
- Metropolis – Metropolis Municipal

[61] Champaign Regional Planning Commission. (July 2019). “Illinois Public Transit Systems.” Available online at: https://ccrpc.org/wp-content/uploads/2018/12/Illinois-Public-Transit-System-Map-Contacts-2.pdf. (Accessed September 2020).
[62] Amtrak. (N.d.) “Midwest Train Routes.” Available Online at: https://www.amtrak.com/regions/midwest.html (Accessed September 2020).
[63] IDOT. (2019). “Long-Range Transportation Plan.” (Accessed September 2020).

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Table 5.3. IASP Airport Multimodal Integration

Associated City	Airport Name	FAA ID	On-site Rental Car	Off-site Rental Car	Courtesy Car	Taxi Service	Ride Share (TNC)	Light/ Commuter Rail	Heavy Rail/Train	Bus	Shuttle
Commercial Service											
Belleville	Scott AFB/MidAmerica	BLV	✓	✓		✓	✓	✓		✓	✓
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	✓	✓	✓	✓	✓			✓	✓
Champaign/Urbana	University of Illinois-Willard	CMI	✓		✓	✓	✓				✓
Chicago	Chicago Midway International	MDW	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chicago	Chicago O'Hare International	ORD	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chicago/Rockford	Chicago/Rockford International	RFD	✓		✓	✓	✓			✓	
Decatur	Decatur	DEC	✓	✓	✓	✓	✓			✓	✓
Marion	Veterans Airport of Southern Illinois	MWA	✓	✓	✓	✓				✓	
Moline	Quad City International	MLI	✓	✓	✓	✓	✓			✓	✓
Peoria	General Downing-Peoria International	PIA	✓		✓	✓	✓			✓	✓
Quincy	Quincy Regional-Baldwin Field	UIN		✓	✓		✓				✓
Springfield	Abraham Lincoln Capital	SPI	✓	✓	✓	✓	✓				
General Aviation											
Alton/St. Louis	St. Louis Regional	ALN	✓	✓		✓	✓			✓	
Beardstown	Greater Beardstown	K06									
Benton	Benton Municipal	H96		✓	✓	✓					
Bolingbrook	Bolingbrook's Clow International	1C5		✓	✓	✓	✓				
Cahokia/St Louis	St. Louis Downtown	CPS	✓	✓	✓	✓	✓			✓	
Cairo	Cairo Regional	CIR									
Canton	Ingersoll	CTK			✓	✓					
Carbondale/ Murphysboro	Southern Illinois	MDH	✓		✓	✓	✓			✓	

Associated City	Airport Name	FAA ID	On-site Rental Car	Off-site Rental Car	Courtesy Car	Taxi Service	Ride Share (TNC)	Light/ Commuter Rail	Heavy Rail/Train	Bus	Shuttle
Carmi	Carmi Municipal	ENL			✓	✓				✓	
Casey	Casey Municipal	1H8			✓						
Centralia	Centralia Municipal	ENL		✓							
Chicago	Lansing Municipal	IGQ	✓	✓	✓	✓	✓	✓			✓
Chicago/Aurora	Aurora Municipal	ARR	✓	✓	✓	✓	✓				
Chicago/Lake in the Hills	Lake in the Hills	3CK		✓	✓	✓	✓	✓			
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	✓	✓	✓	✓	✓			✓	✓
Chicago/Romeoville	Lewis University	LOT	✓	✓		✓	✓				
Chicago/Schaumburg	Schaumburg Regional	06C		✓		✓	✓				
Chicago/Waukegan	Waukegan National	UGN		✓	✓	✓	✓			✓	✓
Chicago/West Chicago	DuPage	DPA	✓	✓	✓	✓	✓				✓
Danville	Vermilion Regional	DNV		✓	✓	✓	✓				
DeKalb	DeKalb Taylor Municipal	DKB		✓	✓	✓	✓				✓
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73		✓	✓	✓					
Effingham	Effingham County Memorial	1H2		✓	✓	✓	✓				
Fairfield	Fairfield Municipal	FWC			✓						
Flora	Flora Municipal	FOA			✓						
Freeport	Albertus	FEP			✓						
Galesburg	Galesburg Municipal	GBG		✓	✓	✓					
Greenville	Greenville	GRE		✓	✓						
Greenwood/ Wonder Lake	Galt Field	10C		✓		✓	✓				
Harrisburg	Harrisburg-Raleigh	HSB			✓	✓					
Harvard	Dacy	0C0						✓			
Havana	Havana Regional	9I0			✓						

Associated City	Airport Name	FAA ID	On-site Rental Car	Off-site Rental Car	Courtesy Car	Taxi Service	Ride Share (TNC)	Light/ Commuter Rail	Heavy Rail/Train	Bus	Shuttle
Jacksonville	Jacksonville Municipal	IJX		✓	✓	✓					
Joliet	Joliet Regional	JOT		✓	✓	✓	✓				
Kankakee	Greater Kankakee	IKK		✓	✓	✓	✓				✓
Kewanee	Kewanee Municipal	EZI			✓	✓	✓				
Lacon	Marshall County	C75			✓						
Lawrenceville	Lawrenceville-Vincennes International	LWV		✓	✓						
Lincoln	Logan County	AAA		✓	✓	✓					
Litchfield	Litchfield Municipal	3LF		✓	✓	✓					
Macomb	Macomb Municipal	MQB		✓	✓	✓	✓				
Mattoon/Charleston	Coles County Memorial	MTO		✓	✓	✓	✓				
Metropolis	Metropolis Municipal	M30									
Monee	Bult Field	C56		✓	✓		✓	✓		✓	✓
Monmouth	Monmouth Municipal	C66			✓						
Morris	Morris Municipal-James R. Washburn Field	C09		✓	✓		✓				✓
Mount Carmel	Mount Carmel Municipal	AJG		✓	✓	✓	✓				
Mount Sterling	Mount Sterling Municipal	I63		✓						✓	
Mount Vernon	Mount Vernon	MVN	✓	✓	✓	✓				✓	✓
Olney-Noble	Olney-Noble	OLY		✓	✓	✓					
Paris	Edgar County	PRG		✓	✓		✓				
Paxton	Paxton	1C1			✓						
Pekin	Pekin Municipal	C15		✓	✓	✓	✓				
Peoria	Mount Hawley Auxiliary	3MY		✓	✓						

Associated City	Airport Name	FAA ID	On-site Rental Car	Off-site Rental Car	Courtesy Car	Taxi Service	Ride Share (TNC)	Light/ Commuter Rail	Heavy Rail/Train	Bus	Shuttle
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS		✓	✓						
Pinckneyville	Pinckneyville-Du Quoin	PJY			✓	✓					
Pittsfield	Pittsfield Penstone Municipal	PPQ		✓							
Pontiac	Pontiac Municipal	PNT		✓	✓	✓					
Poplar Grove	Poplar Grove	C77		✓	✓	✓	✓				
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP			✓	✓	✓				
Robinson	Crawford County	RSV			✓	✓					
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ			✓	✓					
Rushville	Schuy-Rush	5K4		✓	✓	✓					
Salem	Salem-Leckrone	SLO		✓	✓						
Savanna	Tri-Township	SFY		✓		✓					✓
Shelbyville	Shelby County	2H0			✓						
Sparta	Sparta Community-Hunter Field	SAR		✓	✓						
Sterling/Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI		✓	✓	✓	✓				✓
Taylorville	Taylorville Municipal	TAZ			✓	✓					
Tuscola	Tuscola	K96			✓						
Vandalia	Vandalia Municipal	VLA			✓	✓					

Source: 2020 IASP Airport Inventory and Data Forms

5.4. Illinois Freight Network

Freight transportation is an indispensable catalyst to economic activity as it enhances the accessibility of goods nationally and abroad. The Illinois freight network is extensive in its reach throughout the state and serves as a major hub for cargo flow across the nation. This vast reach is largely attributed to the diverse modes of freight transportation available in the state including rail, maritime via waterways and ports, roadway transport, and air cargo.

The terms multimodal and intermodal are typically used interchangeably. However, each apply toward different scopes in transportation. The 2019 Illinois Long-Range Transportation Plan (LRTP) defines "multimodal" as utilizing differing travel modes (i.e. air travel, rail, maritime, ground transportation) while "intermodal" is more specific to freight and cargo flow that utilizes more than one mode of transportation for the movement of goods.[64] The following subsections summarize the different intermodal freight options available in Illinois including rail, maritime, roadway freight, and air cargo. IDOT recognizes the importance of transportation planning for different modes and has published long-term planning documents for the freight, rail, and marine transportation system. For more information on these studies, the following plans are available on the IDOT website:

- 2020 Illinois Marine Transportation System Plan and Economic Impact Analysis Study (Draft)
- 2017 Illinois State Rail Plan Update
- 2017 Illinois State Freight Plan

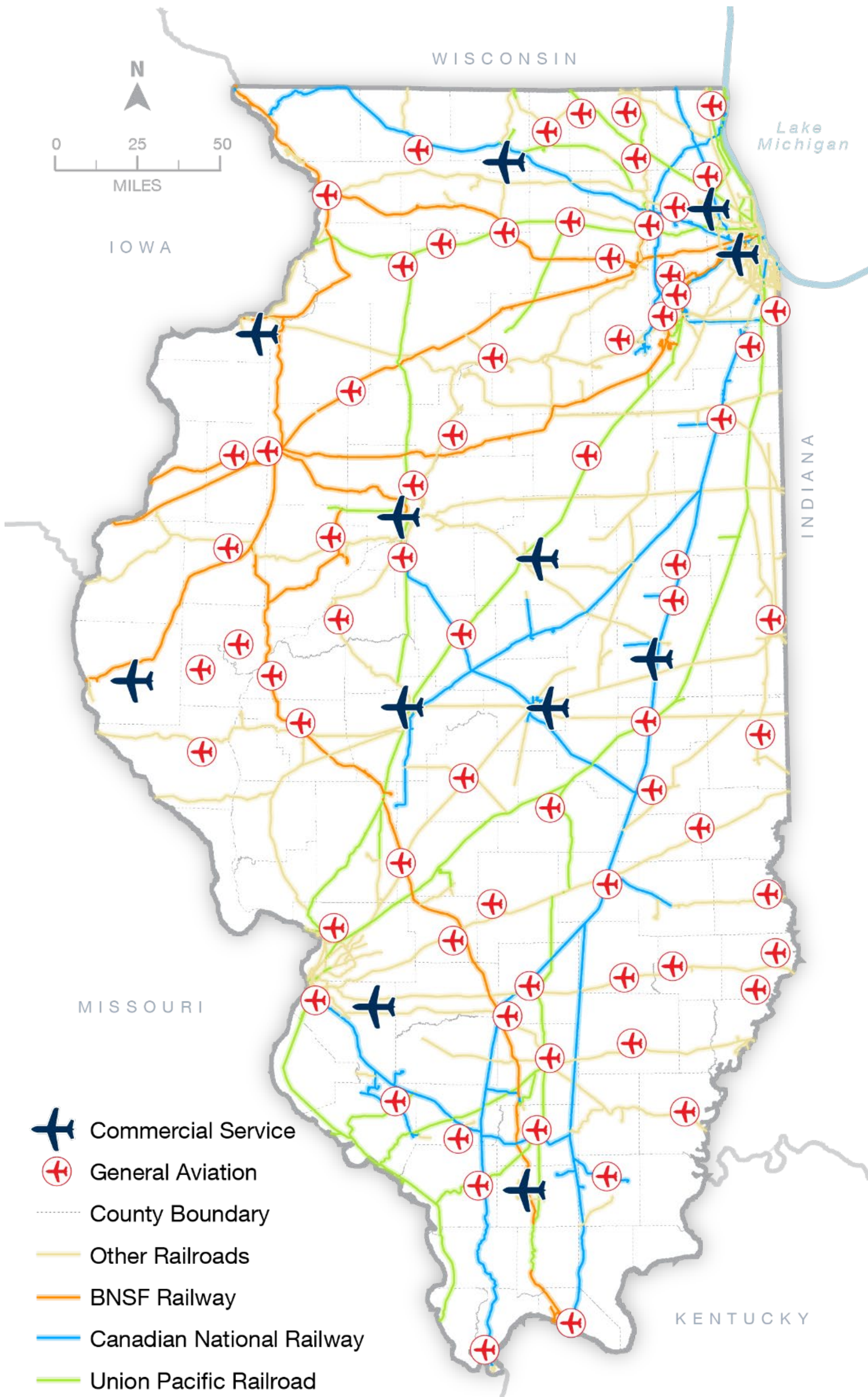
5.4.1. Freight Rail

Freight rail in Illinois represents a significant portion of the total freight value in the state. Estimates from 2014 indicate that all rail freight accounts for more than $1.6 trillion in value, more than half of all freight value transported in the state.[65] Illinois has the second-largest U.S. rail system in available track mileage behind Texas. In total, the Illinois rail network has a total of 52 railroads designated for freight rail transport. These include all seven Class I railroads available in the U.S., four regional lines, and 41 short lines. Altogether, these rail lines provide 9,521 miles of track available to users within the state. This extensive and diverse network of railroads allow for Illinois freight rail to facilitate a great deal of cargo movement both within the state and nationwide.

The freight rail network in Illinois is largely concentrated around the state's northeast region. In fact, the 2017 Illinois State Freight Plan identifies the region as the leading domestic hub for the entire United States' rail system. Estimates show that 25 percent of all U.S. domestic rail traffic and 44 percent of all U.S. domestic intermodal cargo units pass through Chicago alone.[66] This activity generates more than $158 million in economic impacts per year to the Chicago region specifically.[67] In addition to the Chicago area, the East St. Louis metropolitan area serves as an important rail center for the state. The associated counties in the area, St. Clair and Madison, have an estimated intermodal throughput of approximately 3.1 million tons. **Figure 5.6** illustrates the Illinois railroad network and depicts some of the major rail operators in the state.

[64] IDOT. (2019). "Long-Range Transportation Plan." (Accessed September 2020)
[65] IDOT. (October 2017). "Illinois State Freight Plan." (Accessed August 2020)
[66] Ibid.
[67] CMAP. (August 2017). "The Freight System: Leading the way." (Accessed August 2020)

Figure 5.6. Illinois Rail Network



Sources: IDOT Illinois State Rail Plan Update, 2017; Kimley-Horn, 2020

Illinois also has a large demand and capacity for intermodal freight. This type of freight is housed in shipping containers and truck trailers that are moved on rail cars, allowing for the freight to be transferred over to different transport modes without unpacking a container's contents. This differs from conventional "carload" freight that carries bulk commodities like coal, chemicals, and agriculture products.[68] Estimates show that statewide intermodal freight rail carrries for over 105 million tons annually, valued at over $1.3 trillion.[69] This is distributed among the over 200 freight transport facilities that connect all the different freight transport modes available (air freight, maritime, and trucking). This infrastructure enables various state and private industries to implement the best combination of transport modes that best suits the needs of the user. These characteristics allows Illinois to serve as the nearly unparalleled leader in freight rail and a key facilitator of cargo both domestically and internationally.

5.4.2. Waterways and Ports

Illinois's waterway network includes several rivers, canals, and lakes that are a part of the waterway network that connects the Gulf of Mexico and Great Lakes. The state is bordered by the Mississippi River to the west, the Ohio River on its southern flank, and Lake Michigan in the northeastern corner. Additionally, the Illinois River and associated canal system and Kaskaskia Rivers provide access to communities in the state's interior. In total, there are approximately 1,118 miles of navigable waterways that traverse or border the state and 19 port districts across Illinois.[70] Freight is primarily moved north-south along the Mississippi and Illinois river corridors as goods and materials are moved between the Great Lakes and the Gulf of Mexico. There are two ports on Lake Michigan that are capable of serving large oceangoing cargo ships, while the remaining 17 ports serve river-going barges. The oceangoing ports on Lake Michigan include the Illinois International Port District facility at Calumet Harbor and the Waukegan Port and Marina, located approximately 11 miles south and 40 miles north of downtown Chicago, respectively.

The Illinois waterborne freight network is a significant contributor to the Illinois state economy. The 2020 Illinois Marine Transportation System Plan and Economic Impact Analysis determined that approximately 90.6 million tons of freight was carried on Illinois waterborne traffic in 2017, which accounted for approximately 9 percent of total freight moved in the state. The Illinois River accounts for the highest percentage of total tonnage transported by waterway (including inbound, outbound, and in-state), accounting for 29 percent of the total tonnage. The Mississippi River handles 34 percent of the state's total outbound tonnage transported by waterway.[71]

Illinois's network of waterways and ports is an integral component of the state's intermodal freight network. Of the 19 port districts in the state, 16 reported having facilities with direct access to freight rail and 17 reported having facilities with access to the national highway system. Additionally, three port districts operate the airport in their respective communities, providing improved coordination between transportation facilities. **Figure 5.7** displays the location of the 19 public port districts along the state's navigable waterways.

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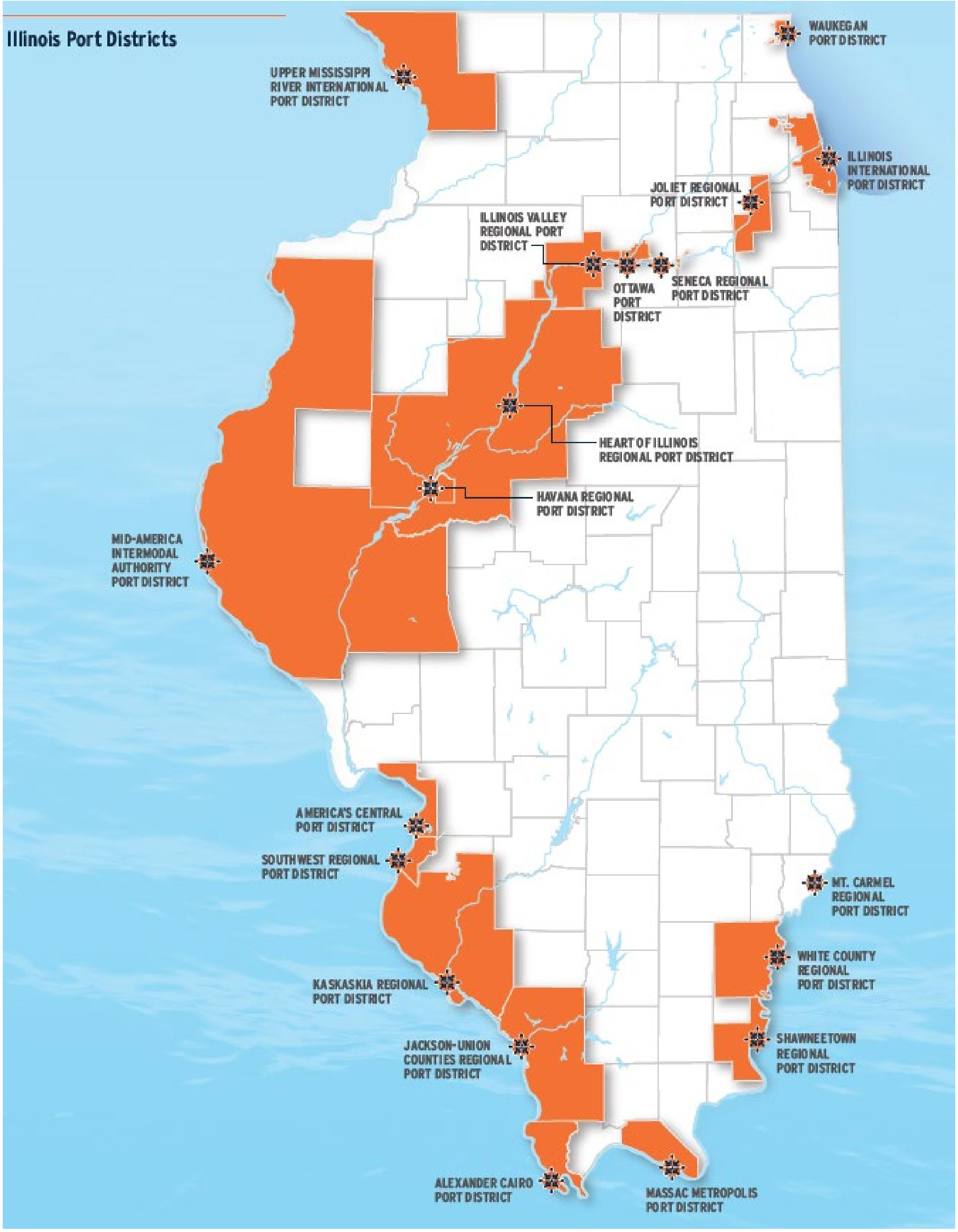
[68] Association of American Railroads. (N.d). "Rail Traffic Data." (Accessed September 2020).
[69] IDOT. (2017). "Illinois State Rail Plan Update." (Accessed August 2020)
[70] IDOT. (November 2020). "Illinois Marine Transportation System Plan and Economic Impact Analysis." (Accessed January 2021).
[71] IDOT. (2019). "Long-Range Transportation Plan." (Accessed September 2020)

Figure 5.7. Illinois Port Districts



Source: Illinois Marine Transportation System Plan and Economic Impact Analysis, 2020

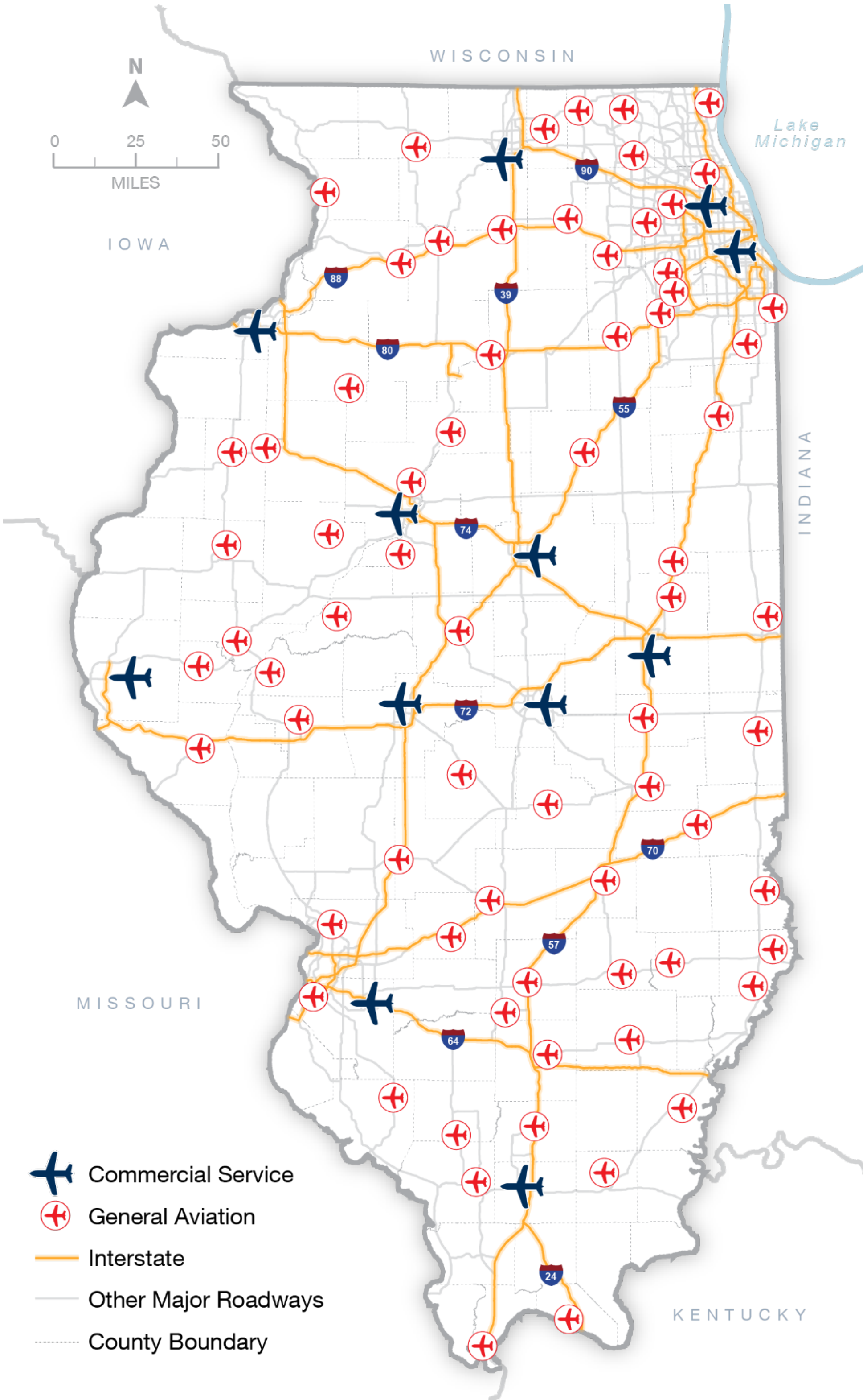
5.4.3. Roadway Freight Network

Illinois's freight network heavily depends on the nearly 16,000 miles of highways that connect communities across the state. Trucks provide supplementary connectivity between intermodal facilities and often provide the first- and last-mile transportation of goods and materials moving between producers and consumers. According to the 2017 Illinois State Freight Plan, trucks carry approximately 664 million tons of cargo, which accounts for more than half of the state's freight tonnage and more than $1 trillion worth of goods and materials. The most common materials carried by trucks are cereal grains, gravel, gasoline, machinery, and electronics. Cereal grains represent 12.2 percent of all tons moved by truck, with the majority of these connecting farms to grain elevators and intermodal facilities, while gravel accounts for 12.1 percent of total freight tonnage, although transport of gravel usually involves shorter distance moves within the state to destinations such as construction sites.[72]

Although Illinois is centrally located in the continental U.S., the majority of freight shipped via Illinois's roadways originate or terminate within the state. Of the approximately 28.7 million miles driven by trucks annually in Illinois, 62 percent of trips originated or were destined for communities and intermodal facilities in Illinois. The most heavily trafficked roadway corridors for trucks are the I-70, I-80 and I-90 corridors that traverse east-west across Illinois as well as the I-55 and I-57 corridors that extend north-south from the Chicago metropolitan area.[73] **Figure 5.8** illustrates the roadway network that trucks most heavily rely upon to transport goods and materials around Illinois.

[72] IDOT. (October 2017). "Illinois State Freight Plan." (Accessed August 2020)
[73] Ibid.

Figure 5.8. Illinois Roadway Freight Network



Source: IDOT State Freight Plan, 2017

5.4.4. Air Cargo Connectivity

Air cargo serves as a key component in Illinois's integrated freight transportation system, enabling quick transport of time-sensitive goods from all parts of the world. Although air cargo represents a seemingly small portion of Illinois's total freight annual tonnage (0.2 percent), the value that it contributes is significant toward the total freight flow in the state.[74]

ORD serves as the major air cargo hub for not only the state, but also for domestic and international air cargo operations. In 2019, the airport had over 1.9 million metric tons of cargo flow through its facilities. Cargo is processed between two dedicated cargo ramps located on the north and south side of the airfield. Both ramps have direct roadway access that connects to Chicago's diverse interstate network. Additionally, Chicago/Rockford International serves as a focal point for cargo with direct roadway access to state and U.S. highways. United Parcel Service (UPS) has an established air hub at Rockford to facilitate their regional cargo operations. The rest of the air cargo throughput in the state is distributed through other airports in the Illinois system. Table 5.4 below highlights the 2019 freight flow volume through the Illinois commercial airport system.

Table 5.4. Illinois Airport System Cargo Flow

Associated City	Airport Name	FAA ID	Annual Freight Flow (2019 [Tons])
Chicago	Chicago O'Hare International	ORD	1,949,460.8
Rockford	Chicago/Rockford International	RFD	355,468.1
Chicago	Chicago Midway International	MDW	21,972.0
Peoria	General Downing-Peoria International	PIA	16,206.3
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	7,854.4
Champaign/Urbana	University of Illinois-Willard	CMI	84.0
Moline	Quad City International	MLI	23.7
Marion	Veterans Airport of Southern Illinois	MWA	0.5
Springfield	Abraham Lincoln Capital	SPI	0.5

Source: Bureau of Transportation Statistics, 2019

5.5. Areas of Transportation Concern Specific to Airports

With the constant adaption of and reliance on transportation, there are areas of concern that need to be addressed on a national scale. This is no different with Illinois transportation capabilities and offerings. Through the 2020 IASP process, several transportation-related areas of concern were identified that affect airports. Based on research, the three most concerning areas regarding airport accessibility and intermodal integration in Illinois include:

- Rideshare concerns
- Deficient roadway infrastructure and traffic congestion
- Bottlenecks within Chicago's rail network

[74] IDOT. (October 2017). "Illinois State Freight Plan." (Accessed September 2020)

The following subsections delve into each of these transportation concerns.

5.5.1. Rideshare Concerns

The advent and growth of TNCs such as Uber and Lyft since 2009 has increased convenience and connectivity for airport users but has also created a number of new challenges for airports. Concerns regarding rideshares at airports include the proliferation of airport vehicular traffic, environmental concerns, congestion of airport curb fronts and cellphone parking lots, reduction of airport parking and taxi revenues, inequitable accessibility for Americans with Disabilities Act (ADA) users, and the COVID-19 pandemic. Additionally, the circumstances surrounding the COVID-19 pandemic has caused further issues for TNCs and airports.

5.5.1.1. Proliferation of Vehicular Traffic

Although TNCs have argued that rideshares reduce overall traffic congestion at airports and other areas of operation, there appears to a lack of agreement whether TNCs actually help to reduce vehicular traffic. However, there is a general consensus that rideshares encourage the continued and growing use of low-occupancy vehicles at airports and on roadways. As such, it would be beneficial to airports to promote rideshare in the form of car and vanpools rather than single passenger rides in an effort to reduce the impact of increased vehicular congestion at an airport.

5.5.1.2. Environmental Concerns

The increase in vehicular traffic and congestion associated with rideshares at airports has resulted in significant environmental concerns. Approximately 40 percent of the total miles logged by rideshare vehicles are driven while 'deadheading', meaning that the driver is traveling to pick up a passenger or waiting for a ride request.[75] The additional miles created by deadheading greatly increases the environmental impacts of rideshares. Specifically, a 2020 study conducted by the Union of Concerned Scientists found that non-pooled rideshares produce 47 percent more carbon dioxide (CO_2) pollution per mile than private vehicles.[76] Users often choose to hail rideshares in place of taking public transit or other low-emission transportation modes such as bike or scootershares. Additionally, rideshares are not subject to several environmental regulations that govern taxi operators. As such, rideshares produce approximately 69 percent more pollution than the trip it replaces.[77] Once again, encouraging the use of pooled rideshares would help reduce the negative environmental impacts of rideshares.

5.5.1.3. Congestion of Airport Curb Fronts and Cellphone Parking Lots

The growth of rideshare services has caused the percentage of airport users being dropped off and picked up at airport curb fronts to increase significantly, as users choose to hail a ride rather than parking a vehicle in traditional parking facilities. As such, airport curb fronts have quickly begun to exceed their originally designed capacities. Concerns associated with crowded curb fronts include increased vehicle and pedestrian interactions which has led to higher collision risks and reduced user experience due to

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[75] Barboza, T. (March 2020). "Taking an Uber or Lyft pollutes more than driving, California finds. Next stop: Regulations." Available online at: https://www.latimes.com/environment/story/2020-03-07/uber-lyft-ride-hailing-air-pollution-greenhouse-gas-emissions (Accessed September 2020).
[76] Union of Concerned Scientists. (February 2020). "Ride-Hailing's Climate Risks." Available online at: https://www.ucsusa.org/sites/default/files/2020-02/Ride-Hailing%27s-Climate-Risks.pdf. (Accessed September 2020).
[77] Union of Concerned Scientists. (February 2020). "Ride-Hailing's Climate Risks." Available online at: https://www.ucsusa.org/sites/default/files/2020-02/Ride-Hailing%27s-Climate-Risks.pdf. (Accessed September 2020). Ibid.

congestion and delay. Commercial service airports are testing different approaches to the handling of ridesharing pick-up and drop-off points in an attempt to reduce curb front congestion. The preferred method is dependent on the airport and is based on available space, the roadway access network, and other issues potentially impacting curb front congestion.

In addition to increased congestion on curb fronts, rideshare vehicles have also caused short-term parking lots (referred to as cellphone waiting lots) to frequently exceed capacity. Rideshare drivers often park in cellphone lots while waiting for airport users to request trips, which can reduce available parking spaces for private vehicles waiting to pick up passengers. To remedy this issue, airports including ORD have designated specific lots for rideshare drivers to wait in. However, TNCs have cited traffic issues and other incidents in designated rideshare lots that have resulted from overcrowding and fierce competition between drivers hoping to earn passenger business.

5.5.1.4. Reduction of Airport Parking Lot and Taxi Revenues

As mentioned above, the propagation of rideshare has directly reduced demand on airport parking facilities. Furthermore, the growth of transit options such as light rail and bus at airports has further caused parking revenues to decline. As such, airport parking lot revenues, which usually represent one of the largest and most stable revenue streams at airports, have been substantially impacted. Additionally, TNCs compete with taxi operators but do not have to pay the same user fees, causing airports to lose revenues associated with taxi fees. Some airports have attempted to alleviate the strain caused by lost parking and taxi revenues by instituting rideshare policies including the use of GPS-based geofences that require rideshare vehicles to pay a user fee when entering the airport zone. MDW has already instituted such a policy as the airport requires rideshares to pay a $5.00 airport fee when picking up or dropping off passengers at the terminal.[78]

5.5.1.5. Inequitable ADA Accessibility

There is also a limited capacity of rideshare companies that have the ability to accommodate users that are identified under the ADA. As most rideshare drivers use their own personal vehicles, the vast majority of the overall TNC fleet is unable accommodate wheelchairs or other mobility equipment. Therefore, as rideshare grows as a transportation mode, the equitable share of ADA compatible transportation may decrease. Both Uber and Lyft have implemented accessibility programs to provide a limited number of vehicles that can accommodate non-folding wheelchairs. However, these services are only available in select markets and available vehicles can often take a considerable amount of time to arrive once a trip has been requested. Additionally, these policies are not always adequate, as ADA-compliant vehicles are sometimes unable to serve all forms of ADA passengers or are too costly to prove reasonable for users. IDOT actively advocates for accessibility as required by the ADA, however, the provision of ADA-compatible vehicles is left to the various transit districts, rideshare companies, and taxi services in the state. The challenge lays in ensuring these types of entities, particularly among growing TNCs, provide an equitable number of ADA-compliant vehicles across all service areas.

5.5.1.6. COVID-19 Pandemic Concerns

TNCs are among the many industries that have been adversely impacted by the novel coronavirus (COVID-19) pandemic that swept the globe in 2020. As such, TNCs have been affected by the lack of

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[78] RideGuru. (N.d). "Uber, Lyft, Taxis, Limos, and others at Chicago Midway International Airport (MDW)." (Accessed September 2020).

revenues associated with declined passenger traffic. Uber and Lyft executives have marketed rideshare services as a safe alternative to public transit systems and rental car service. In contrast from rideshare service, airports benefit greatly from rental car activity through collecting user fees. However, the pandemic has depressed this activity to the point that the additional revenue from rental cars doesn't offset the loss of airport rideshare activity. In an effort to reduce the spread of COVID-19, TNCs and government agencies have implemented procedures regarding drivers and riders including improved cleaning, mask requirements for drivers, and the use of Plexiglas® barriers between drivers and passengers. Several TNCs have also issued policies restricting multi-passenger trips and forcing rideshare drivers to complete single passenger trips rather than shared or pooled trips. This can increase the number of rideshare vehicles at airports at any given time, which may not cause issues while passenger traffic is depressed but may cause traffic and congestion issues when air traffic returns to pre-pandemic levels.

5.5.2. Deficient Roadway Infrastructure and Traffic Congestion

Illinois relies heavily on its roadways for quick and efficient transportation around the state for many purposes, including getting passengers and freight to and from airports. In 2017, there was an estimated 108 billion miles travelled throughout Illinois roadway network alone. Unfortunately, drivers are plagued with degraded roadway infrastructure and traffic congestion. These issues create monetary and time expenses for Illinois's drivers, negatively impacting overall quality of life for residents. To quantify this cost, the non-profit transportation research organization TRIP calculated the estimated costs of deficient roadways to Illinois drivers. Altogether, these roadway issues are estimated to cost Illinois's drivers an estimated $18.3 billion each year. In addition, the impacts are felt in freight transport, particularly in trucking which is the most heavily used form of freight transportation in the state. And at the macro-level, these issues will continue to handicap Illinois's ability to accommodate population growth, sustain an economically competitive position among other states, and reach for higher economic activity. Estimates show that the vehicle operating costs (VOC) attributed to deteriorating roads sums to $5 billion per year in expenses.[79]

Table 5.5 highlights the estimated expenses that the average motorist in each of Illinois's metropolitan areas incurred from the deficient roadway conditions, traffic congestion, and driving accidents.

Table 5.5. Estimated Cost of Deficient Roads

Location	Annual Cost per Driver			
	Vehicle Operating Cost (VOC)	Driving Accidents	Congestion	TOTAL
Chicago	$633	$387	$1,539	$2,559
Champaign-Urbana	$563	$569	$310	$1,442
Metro East	$405	$921	$1,086	$2,412
Peoria-Bloomington	$610	$542	$376	$1,528
Rockford	$680	$707	$594	$1,981
Springfield	$491	$497	$306	$1,294
ILLINOIS STATEWIDE	**$5 Billion**	**$4.8 Billion**	**$8.5 Billion**	**$18.3 Billion**

Source: TRIP, May 2019

[79] TRIP. (May 2019). "Illinois Transportation by the Numbers." (Accessed September 2020).

Like most other states, Illinois's suffers from degrading roadway pavement conditions. This can be attributed to the lack of funding for continuous maintenance to combat the normal causes of wear (i.e. vehicle traffic, moisture, extreme climates). According to TRIP, an estimated 42 percent of Illinois's major roads and bridges are either in poor or mediocre condition.[80] This presents a great safety risk toward users, increases the operating costs of vehicles on the road, and contributes toward congestion in the more populous areas. In addition to normal roadways, bridges in Illinois are also suffering from degrading infrastructure. An estimated eight percent of all local and state-maintained bridges are highlighted as poor/structurally deficient. This also presents a great safety risk toward drivers and lowers the weight capacity set in place, limiting the network range of heavier vehicles users (emergency vehicles, commercial trucks, large buses etc.). **Table 5.6** indicates the varying conditions for existing roadways throughout Illinois by major metropolitan area.

Table 5.6. Roadway Conditions throughout Illinois

Location	Roadway Condition			
	Poor	Mediocre	Fair	Good
Chicago	31%	27%	17%	25%
Champaign-Urbana	25%	31%	12%	32%
Metro East	12%	28%	24%	36%
Peoria-Bloomington	32%	25%	9%	34%
Rockford	36%	27%	13%	25%
Springfield	23%	22%	13%	42%
ILLINOIS STATEWIDE	**19%**	**23%**	**19%**	**39%**

Source: TRIP, May 2019

Along with deficient roadway infrastructure, traffic congestion also plagues Illinois drivers each day. This is particularly realized in larger urban areas, where there is a greater population concentration and limited roadway capacity. This is also a larger concern to the Illinois commercial service airports. Estimates show that congestion alone accounted for $8.5 billion in time and fuel expenses for all users in 2017.[81] The direct impacts are imposed on employers that rely on commuting employees to contribute to productivity. In addition, freight operators that use trucking to ship goods also realize the impact through the increased lead times. Within freight commerce, anticipated congestion means building in more lead time which increases costs to business users, which will ultimately be passed down to the consumer. This can reduce the appeal for businesses to invest in the region and hinder economic development.

5.5.3. Bottlenecks within Chicago Rail Network

Chicago is a critical passenger and freight rail hub for the U.S., accounting for an estimated 25 percent of all national rail freight that passes through the region, amounting to nearly 1,300 passenger and freight trains per day.[83] However, despite the state having the second largest rail network to try and accommodate this demand, there are still major bottlenecks being realized by passenger and freight rail users.

[80] Ibid.
[81] TRIP. (May 2019). "Illinois Transportation by the Numbers." (Accessed September 2020).

Rail traffic is projected to double in the next 30 years, placing a great strain on the century-old infrastructure that is struggling to keep up with even the current rail traffic.[82] As an example, the 75th Street rail corridor located in Chicago is a major route used by interstate freight rail operators. However, commuter trains use this same track and take priority over freight trains, causing the route to be plagued with bottlenecks that add significant lead time. In some cases, coast-to-coast freight spent nearly a third of its lead time getting through Chicago alone.[83] These findings are apparent across the board and are a large reason for the American Society of Civil Engineers (ASCE) grading the rail infrastructure as a “C+” citing the notable bottlenecks in Chicago which “cause significant delay to users across the board.”[84] In addition, the popular Union Station is struggling to accommodate both Metra commuter service and long-haul service within its century-old infrastructure.

These bottlenecks can be attributed to a combination of reasons: inadequate and outdated rail infrastructure, traffic flow inefficiencies, increasing usage of the rail network, and limited coordination between rail operators. As a result, rail users find a handicap being placed on rail flow through the region. Furthermore, these major slowdowns negatively impact the efficiency that multimodal and intermodal capabilities can provide to passengers and freight available in the state.

5.6. Long-Range Planning and Transportation Improvements

Transportation planning is vital to the mission of maintaining and growing the overall accessibility and modal connectivity of Illinois’s transportation network. Planning allows communities to anticipate future growth and forecast shifts in demand to best prepare for desired outcomes. Following planning efforts, specific improvement and development projects can be identified and implemented along planned timelines or upon reaching predefined milestones. The following subsections touch on local long-range planning efforts, the Illinois Long-Range Transportation Plan (LRTP) and specific infrastructure improvements that are either in process of being completed or planned for the near future for Illinois’s mobility systems.

5.6.1. Local Plans

One of the central goals of aviation system planning is to assist airports in integrating their needs and impacts into the local transportation and land-use planning efforts. Proper coordination between airports and local land use authorities through local and regional planning efforts is critical to ensure that airports are properly integrated into their communities, appropriate access is provided between airports and communities, incompatible developments do not encroach into an airport’s operating area, and other needs are being met by all parties involved. Airport managers were asked to identify if their airport has been considered in their local or regional land use or transportation planning efforts. Thirty-six airports responded that their airport was considered in their local land use or transportation plans, while 47 airports responded that they were not included.

According to IDOT data, there are 16 metropolitan planning organizations (MPO) that publish Long-Range Transportation Plans (LRTP) and Transportation Improvement Plans (TIP) that identify future improvements and develop a list of projects to be completed during the short-term planning window along

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[82] SmartCitiesDive. (November 2018). *Fixing Chicago's freight rail congestion.* (Accessed August 2020)
[83] Chicago Business. (August 2017). “As the nation's rail hub, Chicago is an expensive and dangerous bottleneck.” (Accessed August 2020)
[84] ASCE. (2018). “Report Card for Illinois Infrastructure 2018.” (Accessed August 2020)

with estimated costs associated with the projects. **Table 5.7** summarizes the existing MPOs in Illinois, the year that each agency published their most recent LRTP, and IASP airports that are considered in each long-range planning document.

Table 5.7. Illinois Metropolitan Planning Organizations

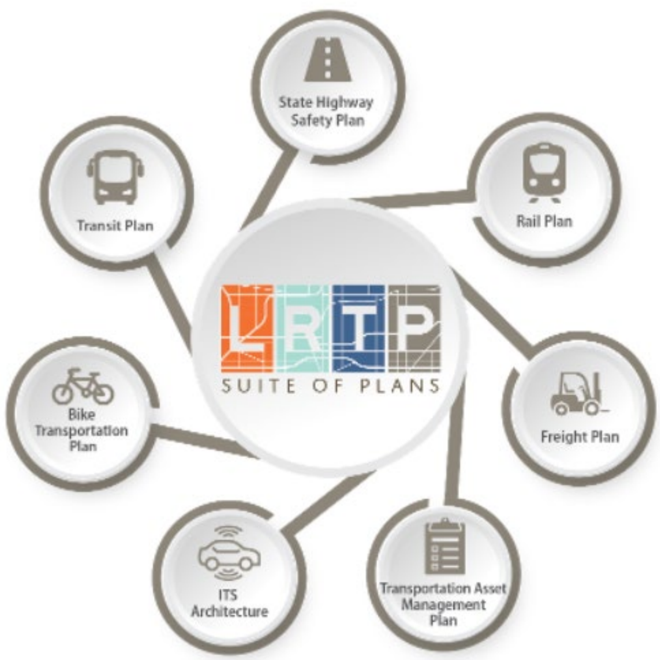
Metropolitan Planning Organization (MPO)	Most Recent LRTP Publishing Year	Airports Considered in MPO Long-Range Transportation Plan (LRTP)
State Line Area Transportation Study (SLATS)	2016	Chicago/Rockford International
McLean County Regional Planning Commission	2017	Central IL Regional Airport at Bloomington-Normal
Southern Illinois Metropolitan Planning Organization (SIMPO)	2020	Southern Illinois, Veterans Airport of Southern Illinois
Southeast Metropolitan Planning Organization (SEMPO)	2016	
Champaign County Regional Planning Commission (CCRPC)	2019	University of Illinois-Willard
Chicago Metropolitan Agency for Planning (CMAP)	2018	Chicago O'Hare International, Chicago Midway International
Danville Area Transportation Study (DATS)	2020	Vermilion Regional
Decatur Urban Area Transportation Study (DUATS)	2020	Decatur
DeKalb/Sycamore Area Transportation Study (DSATS)	2020	DeKalb Taylor Municipal
East Central Intergovernmental Association (ECIA)	2017	
Kankakee Area Transportation Study (KATS)	2020	Greater Kankakee
Tri-County Regional Planning Commission (TCRPC)	2020	General Downing-Peoria International, Mount Hawley Auxiliary, Pekin Municipal
Bi-State Regional Commission (Quad City MPO)	2016	Quad City International
Region One Planning Commission (R1PC)	2020	Chicago/Rockford International, Poplar Grove
Springfield-Sangamon County Regional Planning Commission (SSCRPC)	2020	Abraham Lincoln Capital
East-West Gateway Council of Governments	2020	

Sources: IDOT, 2020; Kimley-Horn, 2020

5.6.2. Illinois Long-Range Transportation Plan (LRTP)

IDOT's Long-Range Transportation Plan (LRTP) is designed to provide strategic direction for the development of Illinois's statewide transportation network. This includes providing an overarching framework for IDOT's development programming throughout all modes of transport available in the state. In addition, the LRTP provides higher-level guidance on how improvement efforts should be distributed throughout the overall Illinois transportation system during a 20- to 25-year planning window. This guidance was developed in conjunction with thousands of stakeholders that provided input toward the planning process. The current LRTP was published in 2019 and per state legislation, IDOT is required to complete an LRTP every five years to provide updated guidance for Illinois's continuously adapting transportation landscape. The overall goals of the LRTP that make up the foundation for the planning efforts include improving safety and mobility, supporting economic growth, promoting livability, increasing resiliency, and providing stewardship. Specifics on the efforts referenced throughout the LRTP are provided in other IDOT programming as part of the Suite of Plans, which discusses other relevant policy and hones into the planning for each transportation mode**. Figure 5.9** highlights the diverse planning efforts that IDOT developed in the Suite of Plans.

Figure 5.9. LRTP Suite of Plans



Source: LRTP, 2017

The LRTP highlights that Illinois transportation system is a vital source of economic activity within the state, providing the critical linkages between points of interest to enable flow of people, goods, and services. Despite the LRTP not providing specific guidance or mention of airport development, it does note that IDOT works as a facilitator with airport stakeholders to complete current infrastructure projects and assess the need for future development. This guidance mirrors the stewardship objectives that the LRTP outlines.

In addition to this, there are objectives and recommendations that the LRTP describes that can identify future programming to improve the accessibility, usability, and intermodal capabilities of Illinois's airport system. These include identifying population and employment shifts to ensure that adequate airport services are provided to the population centers that need it. This will help to identify potential gaps in airport service coverage and assist in suggesting future airport connectivity development. To quantify the accessibility factor of Illinois's current airport system, IDOT measures the percent of the total population and employment centers that are within driving access to a commercial airport. In addition to measuring accessibility, the LRTP identifies that local communities can keep and attract business by supporting the state in funding public aviation projects. This can help with funding airport connectivity development. On the intermodal front, IDOT works with airport stakeholders to identify the linkages that presently exist with Illinois's intermodal facilities and to quantify the number of intermodal facilities that are connected to the National Highway System (NHS). This assists in assessing the intermodal freight capabilities that currently exist in the state and can help identify gaps between intermodal points of interest.[85]

To complement the LRTP, a Transportation System Update report is developed to provide a lens into IDOT's current multimodal services and programming. This is a critical addition to system planning as Illinois houses one of most significant multimodal networks in the United States including the second largest rail system, third largest interstate system, fourth largest highway system, and one of the busiest airport systems in the greater Chicago area (ORD and MDW). Integrated multimodal travel allows all users to pick and choose different transportation modes that best align to individual needs such as time and cost sensitivity, environmental impact, social interaction, and lifestyle preferences among others.

5.6.3. Planned Transportation Improvements

Several of the transportation plans and agencies determined recommendations or projects that address areas of transportation concerns or improve access to IASP airports. Traditionally, LRTPs identify project needs and forecast revenues over the 20-year planning window, however, the funding chapter in the most recent IDOT LRTP was omitted from the plan's final publishing. Instead, much of the state funding efforts are being centered around the Rebuild Illinois statewide program, which was passed into law in mid-2020 by Illinois Governor JB Pritzker and received bipartisan support. In total, the Rebuild Illinois capital program will provide a total of $45 billion worth of investments into multimodal transportation, education, and state facilities over the next six years, making it the largest capital program in Illinois's history. Out of the total funding, $33.2 billion will be distributed among IDOT transportation projects. Most of this transportation funding is allocated toward roads and bridges ($25.3 billion), with the remainder being distributed among mass transit and rail ($5.6 billion), aeronautics ($558 million), the CREATE program ($492 million), and other transportation needs.[86] The goal for this funding is to revitalize the degrading infrastructure throughout Illinois communities and municipalities to ensure continuous economic growth. IDOT is evaluating the transportation improvement needs to determine how best to develop long-term planning and programming efforts.

In addition to the LRTP and the Rebuild Illinois program, IDOT published the FY 2018-2021 Statewide Transportation Improvement Program (STIP) in conjunction with MPOs and local municipalities. This

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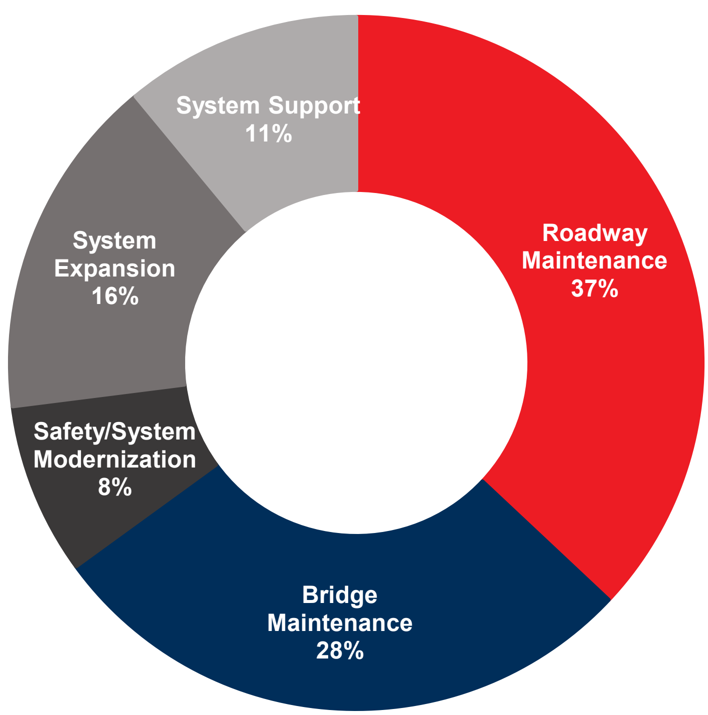
[85] Additional information on the 2019 Illinois LRTP can be found at: http://www.idot.illinois.gov/transportation-system/transportation-management/planning/lrtp/index (Accessed September 2020).
[86] IDOT Update. (2020). "Governor Pritzker Signs $45 Billion Rebuild Illinois Capital Plan." (Accessed September 2020)

document was amended in October 2019 and lists significant high-priority projects scheduled to be completed within a four-year planning window and their anticipated funding streams from local, state, and/or federal agencies. The STIP identified $3.76 billion in transportation needs for FY 2020, which included projects listed in MPO TIPs, significant individually identified projects, and grouped projects.

The STIP is further broken-down in the 2020 Highway Improvement Program (referred to as the Multi-Year Improvement Program (MYP)), which provides roadway-specific project planning from FY 2021 through FY 2026. The FY 2021-2026 MYP identified $21.26 billion available for roadway improvements during the planning timeframe. This program includes $6.14 billion for roadway maintenance, $4.68 billion for bridge maintenance and replacement, $1.37 billion of system modernization, $2.6 billion for system expansion, and $1.78 billion for system support. Projects listed in the FY 2021-2026 MYP include maintenance and repairs to approximately 3,356 miles of highways, repairs to 998,115 square feet of bridge deck area, and safety and modernization improvements at 325 separate locations across the state.[87] The distribution of the state program from the 2020 MYP is summarized in **Figure 5.10.**

Figure 5.10. FY 2021-2026 Illinois MYP Program Distribution



Source: IDOT FY 2021-2026 MYP, 2020

[87] IDOT. (2020) "FY 2021-2026 Proposed Highway Improvement Program" (Accessed September 2020).

5.6.3.1. Highway Improvements

The FY 2021-2026 MYP and the STIP highlighted a number of major projects that will greatly improve Illinois's roadway system and will provide better access to IASP airports. A selection of these projects is highlighted below.[88]

- **Romeoville –** Construction of interchanges on Interstate 55 at Illinois Route 126 and Airport/Lockport Road. This project will improve access between Interstate 55 and Lewis University (LOT). The project is programmed to be completed between 2022 and 2026 and will cost an estimated $181.4 million.
- **Chicago/Rosemont –** Reconstruction of 2.1 miles of Interstate 190 between Bessie Coleman Drive and Interstate 90, one mile east of ORD. This project will include construction of auxiliary lanes, new bridges, drainage improvements, and utility adjustments and will improve the primary access road to ORD. The project has an estimated cost of $516 million and is programmed to be completed between 2022 and 2026.
- **Chicago/Waukegan –** Reconstruction and construction of additional lanes on 2.5 miles of Illinois Route 131 between Wadsworth Road and Sunset Avenue. The project will increase traffic flow in Waukegan and will improve access to Waukegan National (UGN). Estimated cost of the project is $63.5 million and is programmed to be completed between 2021 and 2026.
- **Champaign –** Reconstruction of the Interstate 57 and Interstate 74 interchanges at Mattis Avenue. Construction on the project began in June 2020 and is expected to last through August of 2021. The project is slated to cost approximately $29 million and will precede the reconstruction of the $120 million I-57 and I-74 interchange project that is set to begin in 2021. Both projects will increase traffic volumes and improve access northbound access from University of Illinois – Willard Airport (CMI).[89]
- **Central Tri-State Tollway (I-294) –** Reconstruction and widening of I-94 from Balmoral Avenue to 95th street which will provide congestion relief, reconstruct old infrastructure to meet current and future demand and address regional needs. The project timeline is from 2018 – 2026. Construction in 2020 includes a mainline reconstruction between O'Hare Oasis and Wolf Road in Franklin Park, work on two major bridges, and improvement of several ramps and bridges. This corridor project directly impacts access to Chicago O'Hare International Airport and will help alleviate congestion to and from the airport.[90]
- **I-490 Tollway and IL Route 390 Tollway Projects –** This project will connect businesses and communities to transit facilities, major freight transportation hubs, distribution centers, multiple interstate highways (including I-90 and I-294) as well as improve access to the Chicago O'Hare International Airport. The project includes 17 miles of new roads with 15 new or improved interchanges. This development is part of a regional transportation solution that is the result of bipartisan consensus among local communities, business, labor, public finance, and regional planning and transportation experts.[91]

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[88] Additional information on these and other projects are available online at: http://idot.illinois.gov/transportation-system/transportation-management/transportation-improvement-programs-/multimodal-transportation-improvement-program/index. (Accessed September 2020).
[89] IDOT. (N.d.). "Interstate 57 & Interstate 74 Interchange Reconstruction." (Accessed September 2020)
[90] Illinois Tollway. (2020). "Central Tri-State Tollway (I-294) Project." (Accessed December 2020)
[91] Illinois Tollway. (2018). "Elgin O'Hare Western Access Project: A New, All Electric Toll Road." (Accessed December 2020)

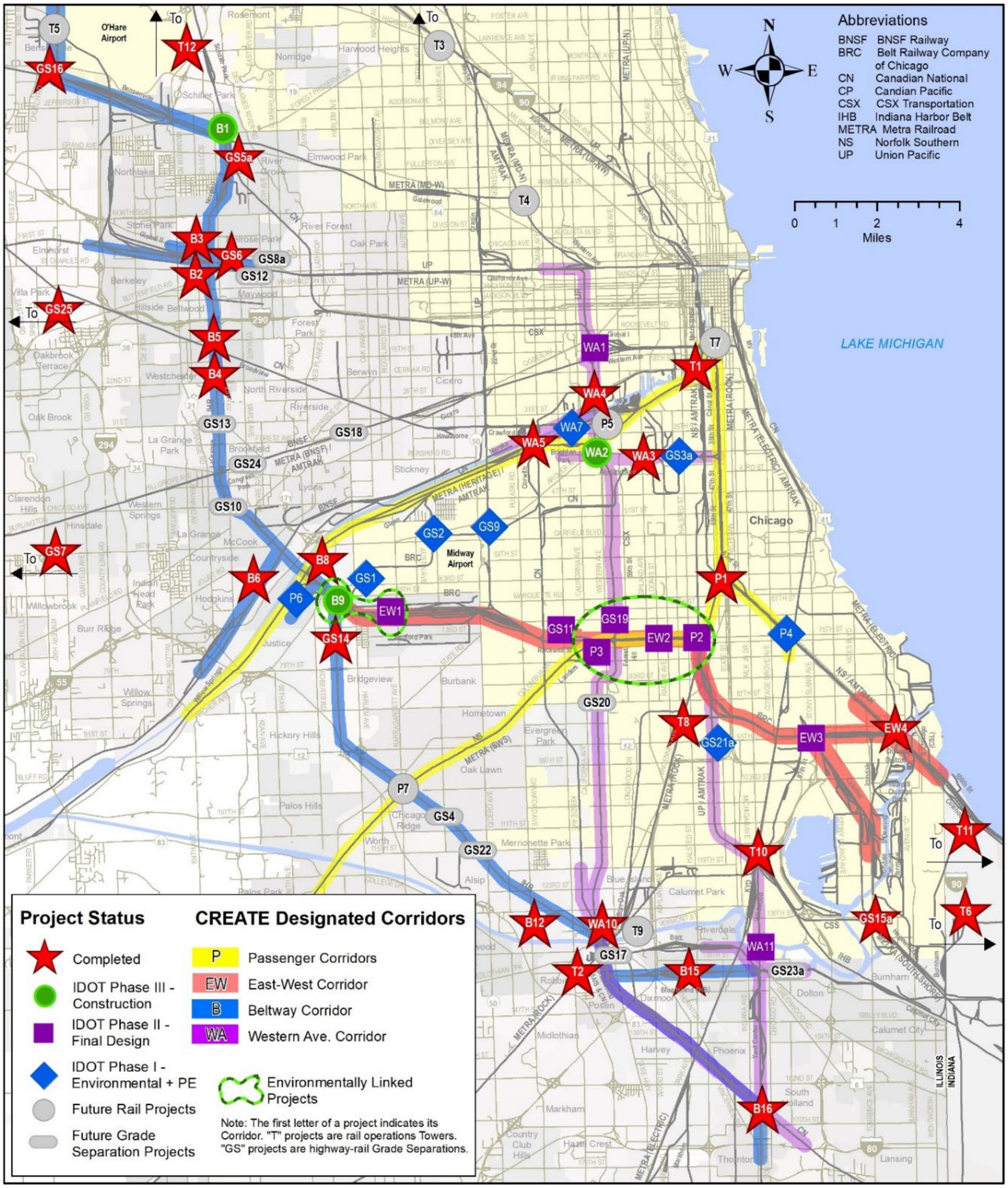
5.6.3.2. CREATE Program

In response to the rail bottlenecks in Chicago, the CREATE consortium was established in 2003 to upgrade the existing tracks, implement new traffic flow technology, and increase collaboration among rail stakeholders. This consortium consists of passenger/freight rail operators and government agencies that have raised more than $1.4 billion, allocated throughout 70 projects across the Chicago rail network.[92] Presently, 30 of these projects are complete, 21 projects are ongoing, and 19 projects have pending starts. Notably, there has been an estimated $474 million that has gone toward the "75th Street Corridor Improvement Project" to modernize and increase the capacity of this critical freight route. According to the Chief Engineer of the CREATE program, the ongoing development has been shown to alleviate some congestion from the 48-hour lead times previously experienced in Chicago to 26-30 hours.[93] However, CREATE estimates that they still require an additional $3 billion to finish all the remaining development work. Once completed, the modernization work is projected to have a 30-year benefit of $31.5 billion in economic activity toward the Chicago area.[94]

Figure 5.11 illustrates the projects identified in the CREATE program and the present status of each.

[92] CREATE. (2014). "Chicago Region Environmental and Transportation Efficiency Program." (Accessed September 2020)
[93] Chicago Business. (August 2017). "As the nation's rail hub, Chicago is an expensive and dangerous bottleneck." (Accessed August 2020)
[94] Ibid.

Figure 5.11. Status of CREATE Projects*



Note: Project status as of July 9, 2020

Source: CREATE, 2020

5.6.3.3. Illinois High-Speed Rail Program

Chicago and St. Louis are two of the largest metropolitan areas in the state and support a major transportation corridor between the two cities. However, roughly 99 percent of the 35 million trips taken in the Chicago-St. Louis corridor each year are conducted via automobile or air travel. As such, the Illinois High-Speed Rail Program was created to enhance the passenger rail network between Chicago and St. Louis and to establish balance between the use of transportation modes in state. The program plans to make improvements at crossings and build additional traffic along the Canadian National, Kansas City Southern, and Union Pacific railroad lines. The goal of the program is to establish safe and reliable passenger service on trains capable of traveling up to 110 mph, which will reduce travel time by nearly an hour and make rail travel more competitive with other transportation modes.[95]

The program was funded by the state and the Federal Railroad Administration (FRA) and cost approximately $1.95 billion. Work began on the project in 2010 and was largely completed by 2017. However, issues related to GPS-based safety technology that maintains positive train control has caused delays in the project, and, as of August 2019, trains are not allowed to exceed 79 mph at any point along the route. IDOT will continue to work to complete this project, however, there is no estimate for a completion date when trains will be allowed to travel at full speed.[96] **Figure 5.12** presents the route of the high-speed rail corridor across Illinois.

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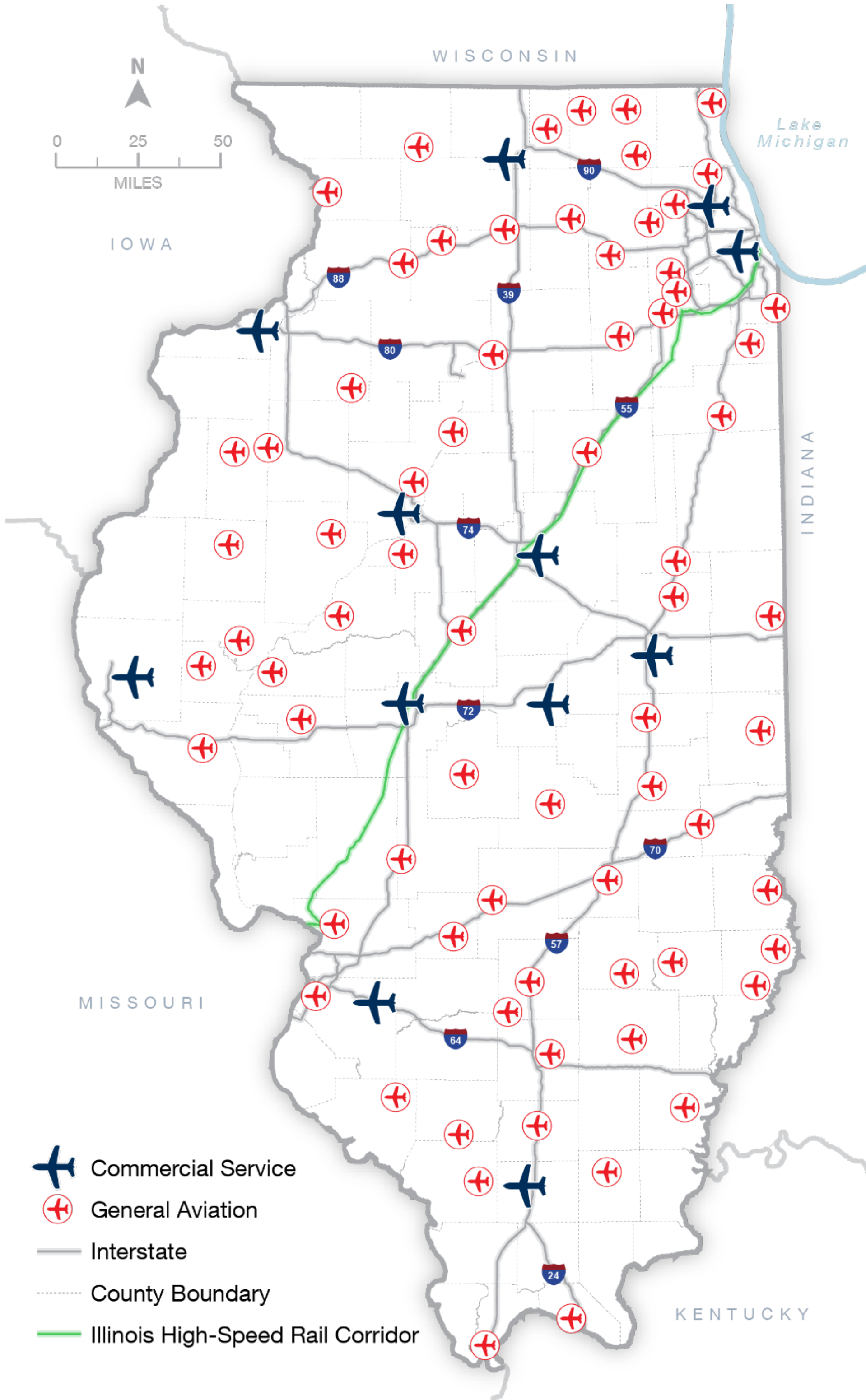
[95] Additional Information about the Illinois High-Speed Rail Network can be found online at: https://www.idothsr.org/. (Accessed September 2020).
[96] Schlinkmann, M. (August 2019). "Faster Speed on Amtrak Route to Chicago Delayed Again." Available online at: https://www.stltoday.com/news/local/govt-and-politics/faster-speeds-on-amtrak-route-to-chicago-delayed-again/article_bb97c7e0-2c9e-583a-8efb-aed367a558f1.html. (Accessed September 2020)

Figure 5.12. Illinois High-Speed Rail Network – Chicago to St. Louis Route



Sources: IDOT Illinois High-Speed Rail Network, 2020; Kimley-Horn, 2020

5.6.3.4. Illinois Tollway Program

Illinois is home to several tollway corridors that contribute to the state's efficient highway system. Tollways charge user fees and ultimately use the earned revenue to maintain and improve their roads. Tollways are a funding mechanism that can be established to maintain important infrastructure without utilizing public revenue streams for maintenance. The Illinois Tollway program secured a $14 billion budget for their capital program "*Move Illinois: The Illinois Tollway Driving the Future*" in 2011. The budget is to be distributed to tollway improvement projects over a time period of 15 years. **Table 5.8** shows the program's total budget and budget spent as of December 2020 by tollway corridor and includes a line item for improvements that impact the entire system and other emerging projects.

Table 5.8. Capital Improvement Budget for Illinois's Tollway Program

Tollway Corridor	Current Budget (millions)	Total Obligations (millions)
Tri-State Tollway (I/94, I/294, I-80)	$4,380.2	$2,527.5
Reagan Memorial Tollway (I-88)	$360.3	$301.6
Jane Adams Memorial Tollway (I-90)	$2,359.4	$2,318.2
Veterans Memorial Tollway (I-355)	$265.7	$162.4
Tri-State (1-294)/(I-57 Interchange)	$331.7	$282.1
Elgin O'Hare Western Access (EOWA)	$3,266.4	$2,556.7
Systemwide Improvements	$3,188.3	$1,461.2
Other Emerging Projects	$121.1	$39.3
***Move Illinois* Total**	**$14,2730**	**$9,648.8**

Source: Illinois Tollway December 2020 Reporting, https://www.illinoistollway.com/projects/capital-programs, Accessed December 18, 2020

5.7. Summary

Multimodal integration and airport access are increasingly becoming major focus points within statewide aviation system plans across the country. This is especially important for the 2020 IASP as the state is located in a strategic position in the Midwest and has the infrastructure to facilitate nearly all forms of transportation. This has allowed Illinois airport users to enjoy diverse transportation options that work in tandem with one another to provide mobility, access, and economic opportunity throughout the state. However, addressing the transportation challenges that exist are critical toward Illinois continuing to provide safe and efficient multimodal options for users. The concerns have been recognized by IDOT and other stakeholders and are being complemented with a diverse array of planning efforts that range from local-specific to statewide long-range planning improvement efforts. Coordinating these planning efforts between airports and communities ensures that improvements to the existing transportation and aviation systems will further enhance airport access and multimodal integration statewide.

Chapter 6. Land Use Evaluation and Environmental Considerations

6.1. Introduction

Airport operations and development are driven not only by aviation-related activities occurring on-property, but also by the land uses and natural features within an airport's environs. These contextual elements can affect an airport's expansion potential, the flight procedures that govern how aircraft land at and take off from the facility, the type and extent of economic activity supported by the airport, and numerous other facets of ongoing airport operations and improvements. Land uses and environmental conditions adjacent to and near airports can have complex relationships with airport activities, and decisions that are made off-airport can have severe consequences for an airport and its users. As a result, it is important for airport managers and sponsors to understand local land use conditions and the potential impacts those conditions can have on aviation operations. Furthermore, airports must comply with numerous state and federal statutes and regulations that govern land uses and the environment—particularly for airport improvement projects that use federal money. These laws are designed to protect the safe and efficient operation of aircraft, the well-being of people and property on the ground, and the health of the natural environment.

This chapter of the Illinois Aviation System Plan (IASP) provides a general overview of various elements of land use compatibility and environmental features that most commonly affect airports in Illinois. The chapter offers airport managers and sponsors a general understanding of their responsibilities in terms of regulatory compliance and their role in ensuring that airports can coexist compatibly with communities as good neighbors and environmental stewards. As an advocate for airports and the administrator of the Airport Improvement Program (AIP) in the state, the Illinois Department of Transportation (IDOT) also has the responsibility of supporting and partnering with airports to promote positive relationships with local communities and the implementation of environmental best practices at airports. By identifying the land use compatibility and environmental issues that most often arise in Illinois, the IASP pinpoints areas that IDOT may consider addressing in terms of additional guidance to airports, policy changes, or project prioritization.

This chapter of the IASP opens by first providing an overview of IDOT's current environmental policies before turning to specific issues of land use compatibility and environmental considerations. Conclusions are then drawn regarding these issues. Airport-specific detail tables that report each study airport's performance in terms of the issues discussed are presented at the end. As such, this chapter is organized as follows:

- IDOT Aeronautics Policy
- Land Use Evaluation
- Environmental Considerations
- Conclusion
- Airport-specific Detail Tables

It is important to note that the IASP does not inventory environmental features to the degree required for airport-specific planning or design projects or to complete a specific environmental review process. Instead, the study provides a high-level review of potential concerns witnessed across the state. Data used in these analyses were obtained from Google Earth aerial imagery, numerous federal and state governmental sources, the airports during the data collection process.

6.2. IDOT Aeronautics Policy

The federal government has established numerous laws designed to protect the health and safety of people, as well as the natural environment. Hailed as a watershed environmental statute when first enacted in 1970, the National Environmental Policy Act (NEPA) requires government agencies to consider the potential environmental effects of proposed actions when federal money is involved. Nearly all airport maintenance and improvement projects conducted at airports included in the National Plan of Integrated Airport Systems (NPIAS) are funded, at least in part, via the AIP. As such, all NPIAS airports are required to use the NEPA process to evaluate the environmental and related social and economic effects of proposed actions, as well as provide opportunities for public review and comment on those evaluations.

The President's Council on Environmental Quality (CEQ) is responsible for overseeing NEPA implementation. On July 15, 2020, the CEQ's final rulemaking on modernization of NEPA implementing regulations was published. While not effective until September 14, 2020, the Federal Aviation Administration (FAA) has one year to update its policies and procedures in accordance with other U.S. DOT direction to reflect the updated CEQ rulemaking.

Currently, FAA Order 1050.1F, "Environmental Impacts: Policy and Procedure" documents the FAA's policy and procedures for compliance with NEPA and implementing CEQ's associated regulations. Additionally, FAA provides Order 5050.4B, "NEPA Implementing Instruction for Airport Projects" and the "Environmental Desk Reference for Airport Actions" to assist airports in complying with all statutory and regulatory requirements. Specific FAA actions subject to NEPA review include (but are not limited to) grants, loans, contracts, leases, construction and installation actions, research activities, licensing, permits, and plans that require the FAA's approval.[97] In general, NEPA is required any time there is a federal action undertaken at an airport.

Once it is determined that NEPA applies to a proposed action, the FAA must decide on the appropriate level of environmental review. These levels are depicted in **Figure 6.1**; each of these requires an increasing level of detail, documentation, public comment, and agency review based on the potential type and severity of impact resulting from the proposed action. EISs are triggered only by proposed major federal actions significantly affecting the quality of the environment. An EIS is generally required for projects, such as developing a new commercial service airport or runway to support commercial traffic in a Metropolitan Statistical Area (MSA), major runway extensions, or actions pertaining to the development or permitting of a commercial space launch site.[98]

Figure 6.1. Levels of NEPA Reviews

Source: Kimley-Horn 2020

[97] FAA Order 1050.1F, Paragraph 1-9
[98] FAA Order 1050.1F, Paragraph 3-1.1

EAs are used to determine if a proposed action could result in significant impacts. A CATEX refers to a proposed action that does not have significant environmental impacts and for which an EA or EIS is not required. The following actions are normally considered categorically excluded by the FAA.[99]

- Administrative or general in nature
- Issuance of certificates or compliance with certification processes
- Installation, repair, or upgrade of equipment or instructions necessary for operations and safety
- Acquisition, repair, replacement, maintenance, or upgrading of grounds, infrastructure, buildings, structures, or facilities that generally are minor in nature
- Establishment, modification, or application of airspace and air traffic procedures
- Establishment of, compliance with, or exemptions to regulatory programs or requirements

As a State Block Grant Participant (SBGP), IDOT is responsible for overseeing all environmental reviews for proposed actions that require a CATEX at nonprimary airports.[100] CATEXs are conducted in accordance with the FAA's Standard Operating Procedure (SOP) 5.1, "CATEX Determinations" (effective June 2, 2017). This document notes that projects must both fall into one of the categories bulleted above and:[101]

- There are no extraordinary circumstances
- Any extraordinary circumstances that are present can be either:
  - Eliminated or resolved through conservation measures included in the project design
  - Resolved through the completion of special purpose law requirement(s)

A CATEX must be documented via simple written record or by following the procedures offered in Appendix A of SOP 5.1.[102] As part of its responsibilities under NEPA, IDOT provides environmental clearance for all categorically excluded projects at Nonprimary airports and maintains the appropriate records in the project files. EAs and EISs at Nonprimary airports are coordinated directly with the FAA. The process at Primary airports is different in that all environmental reviews—including CATEXs, EAs, and EISs—are coordinated directly through the FAA.

To supplement all environmental clearance submittals, the IDOT Bureau of Design and Environment completes a biological and cultural survey prior to all airport improvement projects in the state. As discussed further in the Historical Resources section later in this chapter, surveys are required on projects involving undisturbed ground or structures of potential historical significance. The IDOT Bureau of Design and Environment has agreements with the State Historic Preservation Office (SHPO) regarding the cultural surveys and works with airports and IDOT to identify the specific surveys triggered by each airport project.

6.3. Land Use Evaluation

Airport land use compatibility refers to land use adjacent to or in the vicinity of airports that neither impacts safe and efficient airport operations nor exposes people to unacceptable levels of noise and safety hazards. When airport operations cannot coexist with surrounding use, this incompatibility can be

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[99] FAA Order 1050.1F, Paragraph 5-6.
[100] IDOT is also responsible for reviewing Environmental Assessments at nonprimary airports, however, ultimate approval is the responsibility of the FAA.
[101] FAA Office of Airport (ARP) SOP 5.1, Chapter 2.
[102] Depending on project type. Section SOP 5.1, Chapter 7 for additional details.

an annoyance to people and results in safety concerns related to airspace, overflights, and accident severity. Airport land use compatibility is often associated with encroachment in which undeveloped land adjacent to or near an airport is developed as residential or other incompatible use. Areas may be redeveloped from a compatible use, such as farmland or industrial use, to a sensitive-use property like a hospital, school, daycare facility, or church. Incompatibility can also occur when tall structures that exceed FAA height restrictions are developed in navigable airspace. These height obstructions are governed by Title 14 Code of Federal Regulation (CFR), Part 77, "Safe, Efficient Use, and Preservation of the Navigable Airspace" (Part 77). Part 77 incompatibility arises when structures penetrate specific airspace dimensions known as "imaginary surfaces." Imaginary surfaces are designed to allow aircraft to safely operate within established traffic patterns and within approach and departure areas.

Land use and height incompatibility can lead to serious concerns for airports; pilots, passengers, and other aviation professionals; nearby businesses and their workers; and local residents.[103] In addition to safety risks, some of the most common concerns associated with land use incompatibility include:

- Community impacts
  - Pressure to close airports
  - Lack of local community and/or government support
  - Induced socioeconomic impacts
  - Impacts to parks, recreational, and natural areas
  - Noise and vibration that adversely affect daily life
- Airport impacts
  - Constrained airport development and expansion potential
  - Limited future economic opportunities
  - Degraded airport operations
  - Access restrictions including runway displacement thresholds and revised instrument approach procedures (IAPs)

Airport Cooperative Research Program (ACRP) Report 27, "Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources," defines compatible land uses as those that can coexist with a nearby airport without either constraining the safe and efficient operation of the airport or exposing people living and working nearby to unacceptable levels of noise or hazards.

Because of the importance of land use compatibility for airports and the communities they serve, this section of the IASP identifies land uses that are typically considered incompatible in the vicinity of airports and/or near aircraft operations. Incompatible land uses include buildings and structures whose height exceeds Part 77 standards as well as other types of development that may attract wildlife or large concentrations of people, are noise-sensitive, or cause visual obstructions. The land uses within Part 77 surfaces and Runway Protection Zones (RPZs) are the focus of this evaluation.

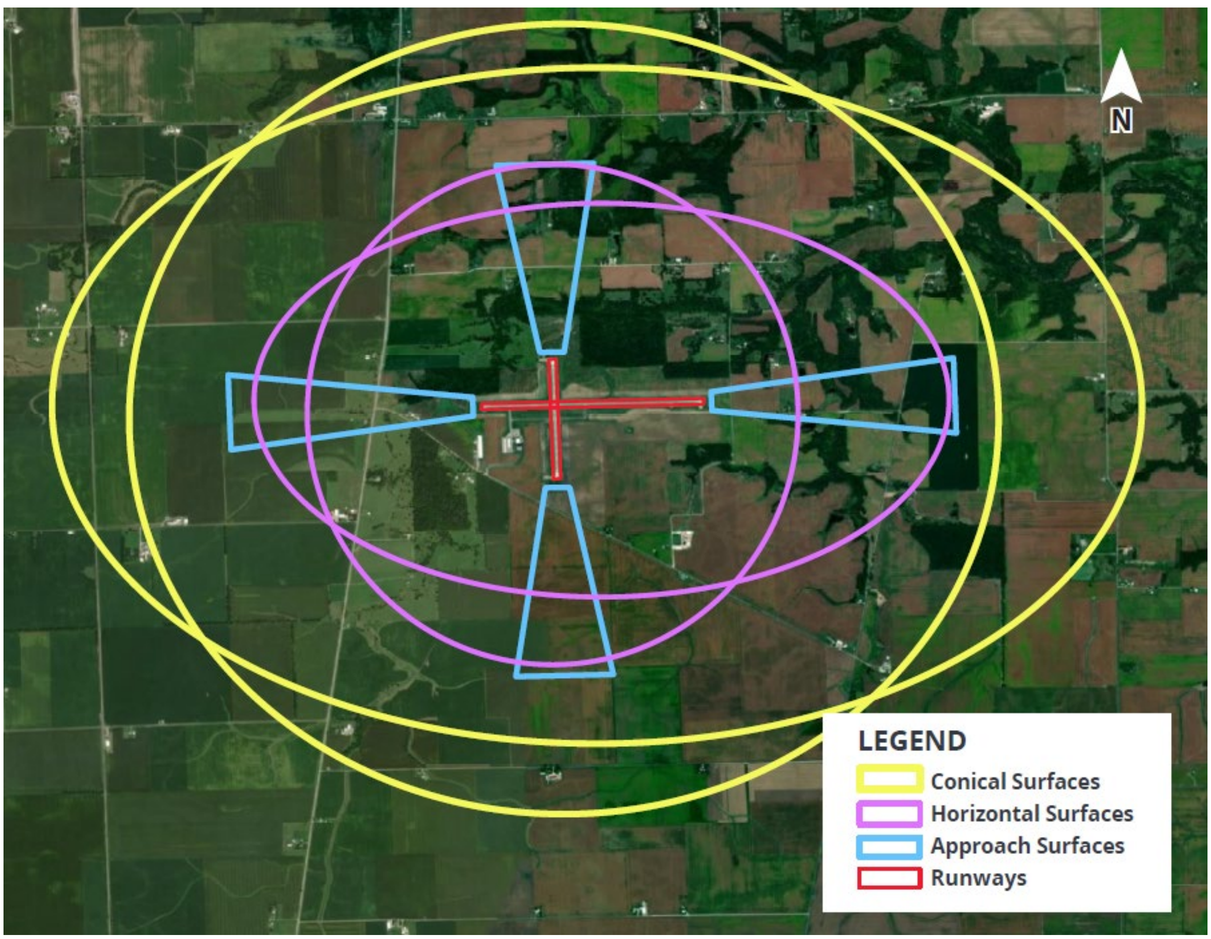
The assessment was conducted by mapping the RPZs and Part 77 surfaces for each Illinois airport

[103] The state of Illinois enforces statewide air hazard zoning for tall structures. For more information, visit Illinois Compiled Statutes (620 ILCS 25/) Airport Zoning Act.

included in the IASP. Incompatible developments including dense residential areas; major developments, such as malls, stadiums, and campus environments; bodies of water; and landfills were then identified by desktop visual assessment utilizing Google Earth imagery. Each type of incompatibility is addressed in turn in the sections that follow. It is important to note that the Part 77 and RPZ land use assessments presented in the following sections are only meant to provide context within the airport environs. The results of these analyses do not necessarily indicate there is a need for any action to be taken.

An example land use evaluation map is provided in **Figure 6.2**. Land use maps were provided to each airport manager during the inventory process for discussion purposes of known land use concerns within these areas. The results of the Part 77 surfaces and RPZ analysis at the airport level are presented in the Airport-specific Detail Tables at the end of this chapter (see **Table 6.3**). The table uses a checkmark (✓) to indicate that an airport is affected by an incompatible land use within either the RPZ or the Part 77 surfaces. While the check marks presented in **Table 6.3** may indicate the presence of a certain type of development within an airport's area of influence, it does not mean action must be taken to remove the obstruction or mitigate the issue.

Figure 6.2. Surfaces Evaluated for Land Use Compatibility (Example)



Sources: Kimley-Horn 2020, Google Earth 2020

6.3.1. Part 77 Analysis

Part 77 regulations are the FAA's primary mechanism for overseeing airport compatible land use. Among several other provisions, Part 77 gives the FAA the authority to:

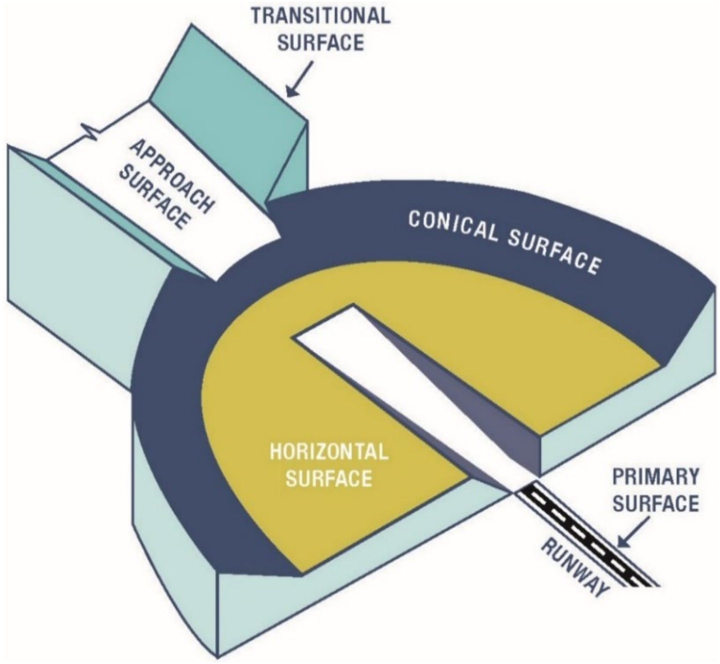
- Evaluate the efficient use and preservation of navigable airspace
- Assess the effect of proposed construction or alteration of an existing object on air safety
- Determine if the proposed construction or alteration is a hazard to air navigation
- Identify mitigation measures should a hazard be identified, including recommendations for appropriate marking and lighting using FAA Advisory Circular (AC) 70/7460-1L, Obstruction Marking and Lighting
- Notify pilots and other stakeholders of the construction or alteration of an object that affects navigable airports

Most pertinent to this evaluation, Part 77 establishes specific airspace dimensions as imaginary surfaces based on the design criteria of airports that should not be exceeded by objects or structures. Imaginary surfaces are designed to allow aircraft to safely operate within the airport's traffic pattern and along established approach and departure areas into and out of the airport. Imaginary surfaces include the following and are depicted in **Figure 6.3:**[104]

- **Primary Surface:** This surface is longitudinally centered on the runway. The length of the Primary Surface is determined by existence of a prepared hard surface on the runway.
- **Approach Surface:** The surface is longitudinally centered on the centerline of the runway. It then extends outward and upward from each end of the Primary Surface. The length and width of the Approach Surface is dependent upon the approach capabilities of that specific runway (visual approach, non-precision instrument approach, precision instrument approach).
- **Transitional Surface:** This surface extends outward and upward from the sides of Primary Surfaces and Approach Surfaces at a slope of 7:1 until it reaches the height of the Horizontal Surface.
- **Horizontal Surface:** This surface is positioned 150 feet above the established airport elevation. The perimeter of the Horizontal Surface is constructed by swinging arcs of specified radii from the center of each end of the Primary Surface of each runway. Tangents then connect the adjacent arcs to form the Horizontal Surface.
- **Conical Surface:** This surface extends outward and upward from the Horizontal Surface for a horizontal distance of 4,000 feet at a slope of 20:1.

[104] The surfaces depicted in **Figure 6.3** apply to civil airports only and do not apply to heliports. Heliports are regulated by their own set of imaginary surfaces.

Figure 6.3. Part 77 Imaginary Surfaces



Sources: 14 CFR Part 77, Kimley-Horn 2020

The following section analyzes the most common types of incompatible land uses within Part 77 surfaces at Illinois's system airports. Part 77 imaginary surfaces are three-dimensional spaces. Due to the nature of a desktop visual assessment, this analysis of Part 77 surfaces was two-dimensional. It should also be noted that the existence of the features identified within Part 77 surfaces does not mean the airports are not within state or federal compliance. For example, development may be under a Part 77 surface, but not penetrating. The intent of this analysis is to identify the extent to which airports should protect airspace. Additional development, especially vertical development, should be closely monitored to maintain safe airways.

The FAA's Notice Criteria Tool can be used to determine if proposed development or alteration of an existing structure may penetrate Part 77 imaginary surfaces and thus requires additional coordination with the FAA to determine if the structure poses a hazard to air navigation. Hazards recorded in this database require further evaluation to determine their actual impacts before action is taken. The Notice Criteria Tool is available online at ***https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm.***

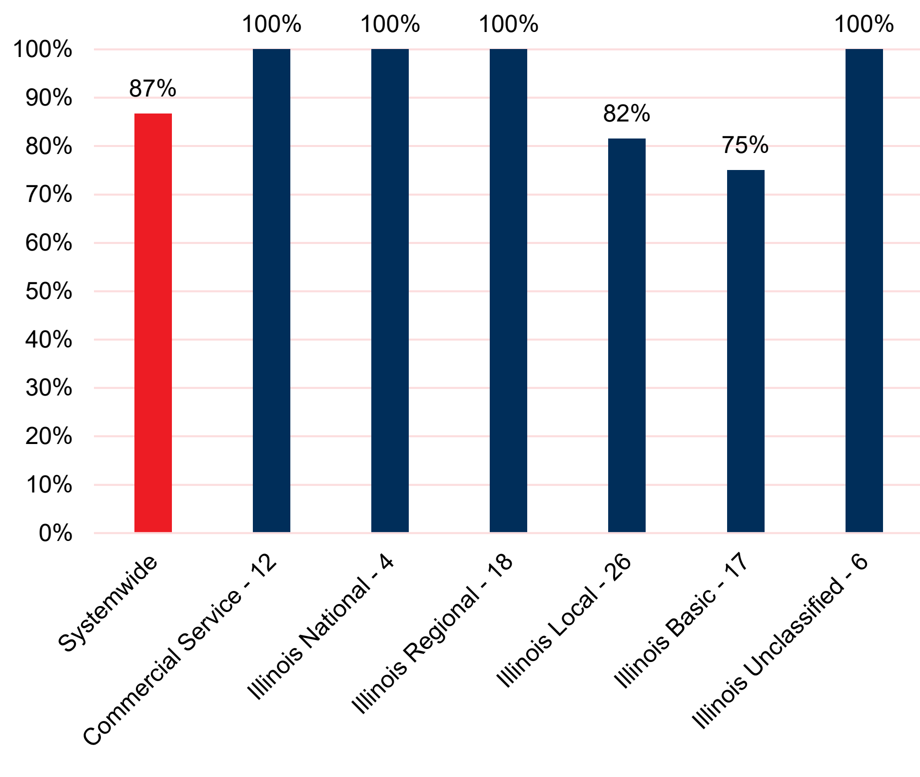
6.3.1.1. Residential Development

Residential development is one of the most recognized incompatible land uses near airports. Multi-level or multi-family structures or dense single-family neighborhoods create a large concentration of people in an area. When located within the boundary of a runway approach or an aircraft traffic pattern, the safety of residents can be threatened in the event of an aircraft incident. Furthermore, airport-related noises typically are a nuisance for local populations and can result in noise complaints to the airport manager or local government officials. Although noise was not a factor considered in this study, it is a major component of land use studies in and around airports. Besides the commonly perceived annoyance factor that may interrupt conversation, sleep, and other normal activities, aircraft noise can also produce vibration that can adversely affect the daily life of people living and working near an airport. Airport noise compatibility planning is regulated by 14 CFR, Part 150, "Airport Noise Compatibility Planning." The FAA administers the Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Program to assist airports in identifying incompatibilities and implementing mitigation measures to address the adverse impacts of aircraft noise in homes and schools near airports. Part 150 studies typically focus only on noise contours whose shape and size are determined based on aircraft operational activity, but in general are closer to the airport than the larger Part 77 surfaces when considered as a whole.

Given the size of Part 77 surfaces, it is common to have residential development located within the area as the airport typically does not control the entire area within the Part 77 surfaces. The primary and approach surfaces are most critical in terms of land use compatibility, while height penetration is most critical in the remaining surfaces. In general, the closer to the airport and aircraft activity such as traffic pattern airspace, the more essential the need to control land uses, as well as height.

As depicted in **Figure 6.4**, 87 percent of Illinois system airports have some sort of residential development that exists within the boundaries of airport Part 77 surfaces. All Commercial Service, Illinois National, and Illinois Regional airports have residential developments within their Part 77 surfaces. Eighty-two percent of Illinois Local, 75 percent of Illinois Basic, all Unclassified airports were identified as having residential development within the boundaries of their Part 77 surfaces.

Figure 6.4. Part 77 Analysis – Residential Development



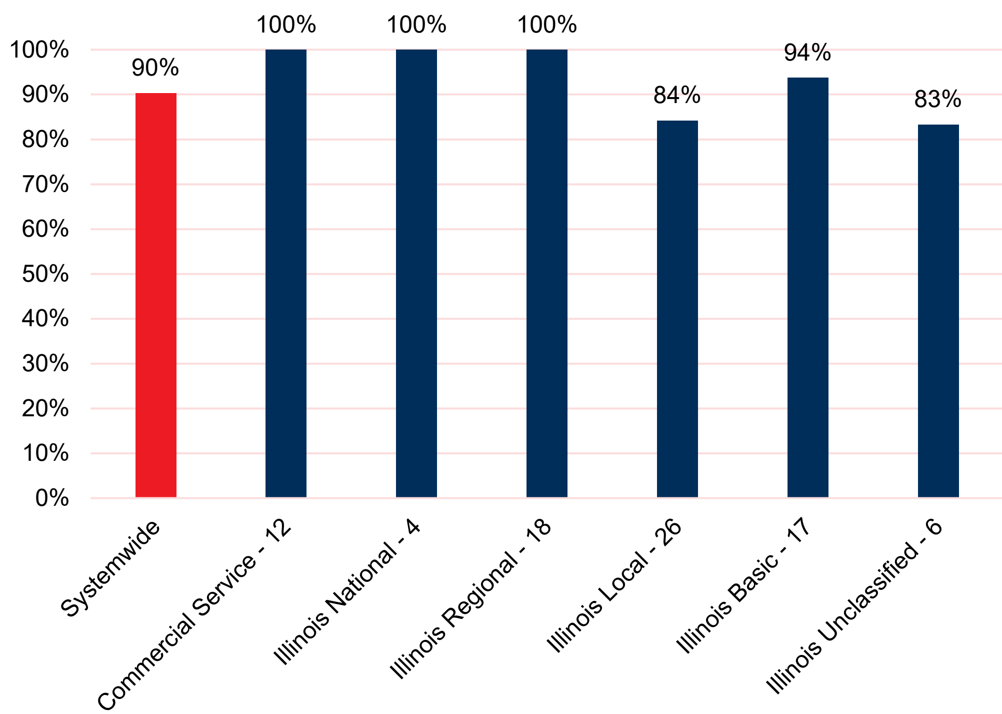
Sources: Kimley-Horn 2020, Google Earth 2020

6.3.1.2. Major Development

Limiting uses that attract higher concentrations of people near airports helps reduce the potential impacts of aircraft accidents should they occur. As such, this analysis focused on those that draw large concentrations of people, such as large malls, churches, schools, and stadiums. Note that some of these uses may have other characteristics resulting in incompatibility in conjunction with population density like tall structures, residential development, and noise-sensitive uses.

Systemwide, 90 percent of IASP airports were identified as having some form of major development within their Part 77 surfaces, as depicted in **Figure 6.5**. These developments are primarily affecting the state's largest airports, with all Commercial Service, Illinois National, and Illinois Regional airports having major development within their Part 77 surfaces. Eighty-four percent of Illinois Local, 94 percent of Illinois Basic, and 83 percent of Illinois Unclassified airports are similarly affected by land uses that are likely to have higher concentrations of people. These results for the largest airports make sense because Part 77 surfaces are dependent on each airport's runway type and visibility minima. Accordingly, busier airports that support more sophisticated and diverse uses generally have larger Part 77 surfaces with an inherently greater likelihood for incompatible development.

Figure 6.5. Part 77 Analysis – Major Development



Sources: Kimley-Horn 2020, Google Earth 2020

Large trucks and other mobile objects related to transportation facilities may also penetrate Part 77 imaginary surfaces, which would trigger FAA involvement should certain thresholds be exceeded. When calculating the height related to transportation facilities during Part 77 evaluations, the FAA requires that 17 feet be added to the road elevation of interstate highways, 15 feet added for other public roadways, and 10 feet to private roads to determine the potential for Part 77 penetration. A 23-foot clearance over railroad lines is also required to be used in evaluating Part 77 penetrations.[105]

Similar to residential development, it is common to have other major developments within the Part 77 surfaces. The primary and approach surfaces are most critical in terms of land use compatibility and addressing potential large congregations of people. The presence of developments that attract large groups of people should be discouraged while in these two closer-in areas that are directly experiencing overhead aircraft activity.

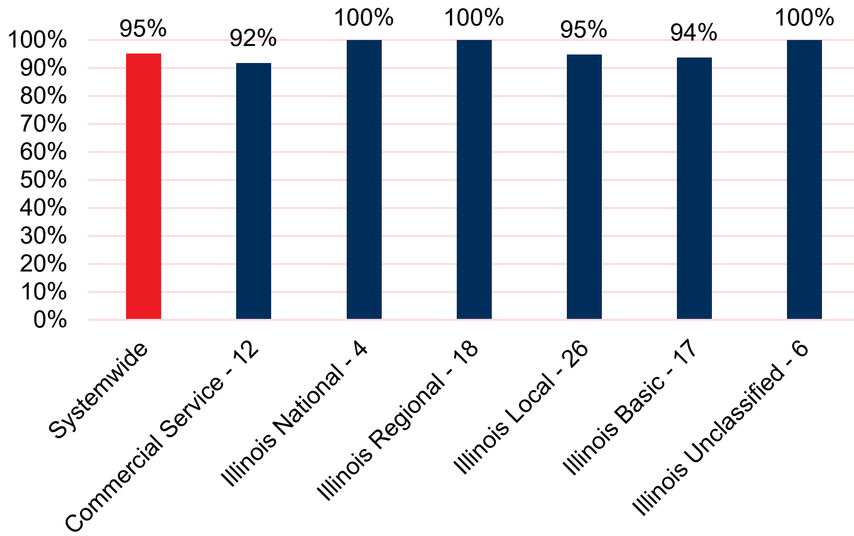
6.3.1.3. Water

Water features in Part 77 surfaces pose a multitude of safety risks for pilots, their passengers, and people and objects under their flight paths. Bodies of water can include lakes, reservoirs, rivers, and creeks, as well as smaller features, such as detention/retention ponds and open irrigation canals. Water causes glare, which reduces exterior and interior visibility. Additionally, water attracts wildlife, which poses a serious threat to safe aircraft operations due to potential collisions. Wildlife strikes can damage or destroy aircraft, resulting in human injury and even death. The FAA reported 287 human fatalities globally and 311 human injuries in the U.S. attributable to wildlife strikes between 1988 and 2017. The FAA's Wildlife Strike Database recorded 5,901 wildlife strikes in Illinois between 2009 and 2019. These strikes affected all types of aircraft—from small piston aircraft to large commercial jetliners and military aircraft. Birds accounted for most strikes, with killdeer, American kestrel, barn swallow, and mourning dove representing the most struck bird species in Illinois. Other types of animals involved in collisions in Illinois included deer, bats, coyotes, woodchucks, foxes, turtles, and others. Because of the frequency of incidents and the seriousness of the potential threat, it is critical to monitor wildlife activity and habitats on and near airports to identify areas of hazards. Depending on the type of wildlife concern, mitigation techniques like fence installation, elimination of standing water, prohibition of crops and other vegetation known to be attractive to wildlife, and more can be implemented to reduce the potential for wildlife incidents. For more information on wildlife at Illinois's airports, see **Section 6.4.2 Threatened or Endangered Species.**

Ninety-five percent of IASP airports have at least one lake, reservoir, river, or creek within their Part 77 surfaces. This includes 90 percent or more of airports in each airport classification and 100 percent of all Illinois National, Illinois Regional, and Illinois Unclassified facilities, as shown in **Figure 6.6**.

[105] State Department of California (2011). "California Airport Land Use Planning Handbook." Available online at https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf (accessed July 2020).

Figure 6.6. Part 77 Analysis – Water Features



Sources: Kimley-Horn 2020, Google Earth 2020

6.3.1.4. Landfills

As noted in the section above, land use practices and habitats are key factors in determining the wildlife species and populations that are attracted to airport environments. Because wildlife strikes have resulted in “the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage,” the FAA released AC 150/5200-33C, “Hazardous Wildlife Attractants on or near Airports” (updated February 2020). This AC provides specific requirements for airports that receive Airport Improvement Program (AIP) funding, those that hold Part 139 Airport Operating Certificates, as well as voluntary recommendations for all other public-use facilities. Additionally, AC 150/5200-34A, “Construction or Establishment of Landfills Near Public Airports” provides additional guidance for Primary Nonhub and certain NPIAS GA airports that provide scheduled air carrier operations conducted in aircraft with less than 60 seats.

In both documents, the FAA recognizes landfills as one of the primary types of land uses that can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. As such, the FAA recommends a minimum separation distance of five statute miles between the farthest edge of an airport’s air operations area (AOA) and known hazardous wildlife attractants, including landfills.[106] That distance is increased to six statute miles for some newly constructed municipal solid waste landfills and Primary Nonhub, Nonprimary Commercial Service, and certain NPIAS GA facilities that meet specific conditions (see AC 150/5200-34A and AC 150/5200-33C for more details).

To conduct this analysis, the IASP obtained information about the location of active landfills across the state from the Illinois Environmental Protection Agency (EPA). The data was then mapped to identify airports with a landfill within their Part 77 surfaces as well within five statutory miles of each airport’s AOA.

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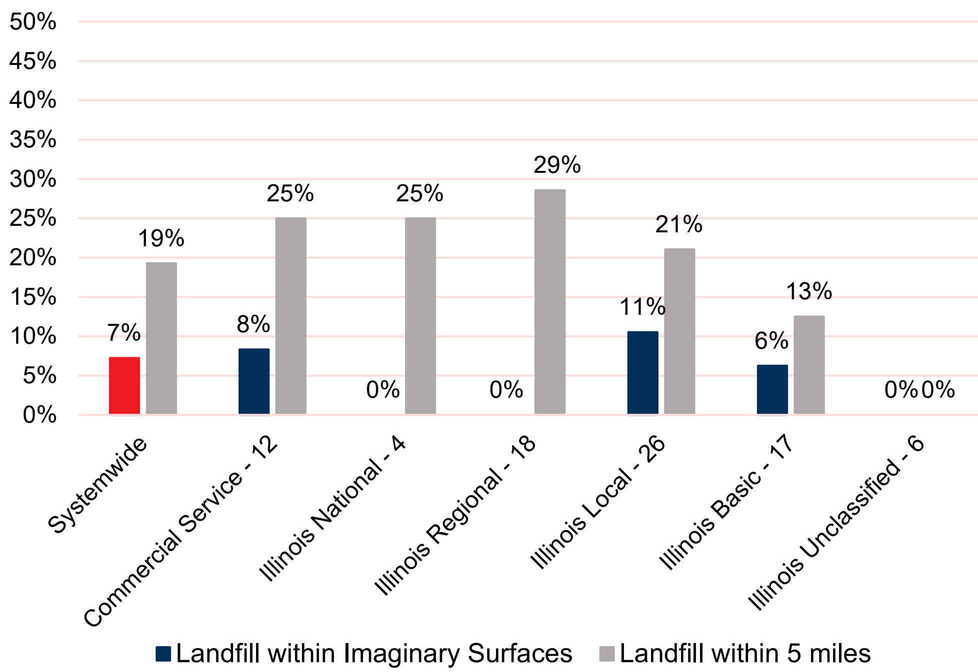
[106] Section 503 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106–181) (AIR 21) prohibits the construction or establishment of a new municipal solid waste landfills within six statute miles of certain public-use airports.

As shown in **Figure 6.7**, this analysis revealed that six IASP airports (seven percent) have a landfill within their Part 77 surfaces and 16 airports (19 percent) have a landfill within five statutory miles of their AOA. Illinois Regional airports have the highest percent of landfills within five statutory miles of the AOA at 29 percent. None of the Illinois Unclassified airports are potentially affected by landfills in Illinois.

Figure 6.7. Part 77 Analysis – Landfills Within Part 77 Surfaces and Within Five Miles of an Airport



Sources: Kimley-Horn 2020, Google Earth 2020, Illinois Environmental Protection Agency 2020

6.3.2. RPZ Analysis

RPZs are imaginary trapezoidal areas located at each end of every runway designed to protect people and property on the ground. The dimensions of these areas are based on the airport approach category the airport is designed to serve, as well as approach visibility minimums to each runway end.[107] Ideally, the airport owner controls all two-dimensional runway end RPZs through sufficient property interest and properly maintains and clears these areas of any incompatible objects and activities. However, many airports do not fully own their RPZs and may only have partial or no control through fee simple ownership or easements. In such cases, the responsibility for airport compatible development within RPZs largely falls to local land use planners and zoning authorities.

RPZs differ from Part 77 surfaces in that FAA has the statutory authority to regulate under FAR Part 77. However, the FAA does administer, approve, and/or fund certain projects and planning studies that could result in the RPZ shifting or expanding in a manner that affects land use within its boundaries. For example, an airport could complete a runway improvement project and change its critical design aircraft; as a result, the dimensions of its RPZ would expand to now encompass an incompatible use. This would

[107] See AC 150/5300-13A, "Airport Design Standards" (consolidated change 1) for an interactive table to determine specific RPZ dimensional requirements.

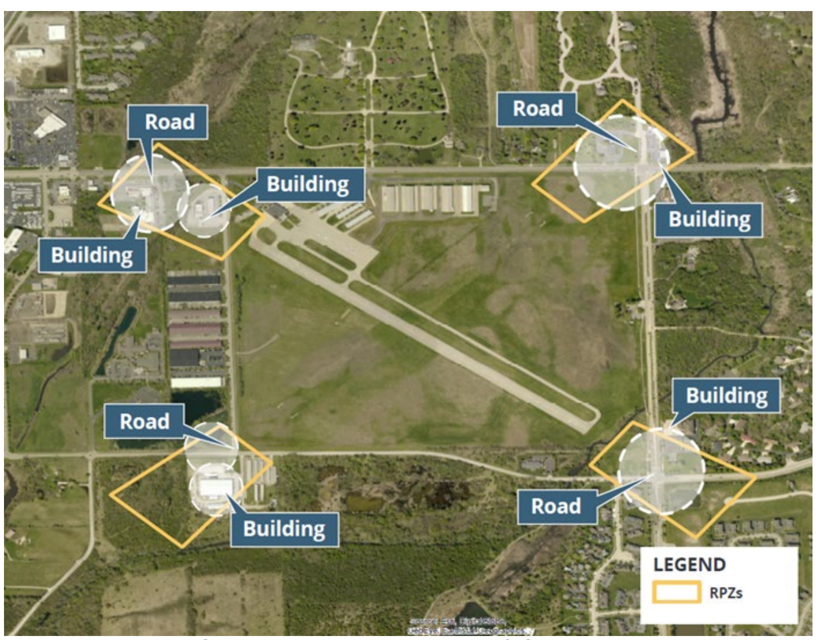
be reviewed during the planning process and identified in an airport layout plan (ALP) that would require FAA approval (for NPIAS airports). During this process the approach to addressing the incompatible RPZ land use would need to be resolved.

To clarify its policies and procedures regarding compatible land uses in RPZs, the FAA released "Interim Guidance on Land Uses Within an RPZ" (Interim Guidance) in 2012.[108] This Interim Guidance was developed specific to new or modified land uses in an RPZ, not existing RPZ incompatibilities, and requires additional agency coordination for the following land uses:

- Buildings and structures
- Recreational land uses (e.g., golf courses, sports fields, amusement parks, and other places of public assembly)
- Transportation facilities
- Fuel storage facilities
- Hazardous materials storage
- Wastewater treatment facilities
- Above-ground utility infrastructure, including any type of solar panel installation

The FAA and airport sponsor must work together to conduct an alternatives analysis should a change occur that results in an above-mentioned land use entering the limits of the RPZ. It is important to note that RPZ guidance is specifically designed to protect people and property on the ground. This is different than Part 77 regulations, which primarily address threats to navigable airspace. In the sections that follow, the IASP evaluates incompatible land uses within all of the RPZs of Illinois's system airports. For the purposes of reporting this information, if even one RPZ on an airport was found to have an incompatible use, the entire airport was categorized as such. **Figure 6.8** provides an example of the analysis that was completed within airport RPZs.

Figure 6.8. RPZ Land Use Evaluation



Source: Kimley-Horn, 2020, ArcGIS Analysis

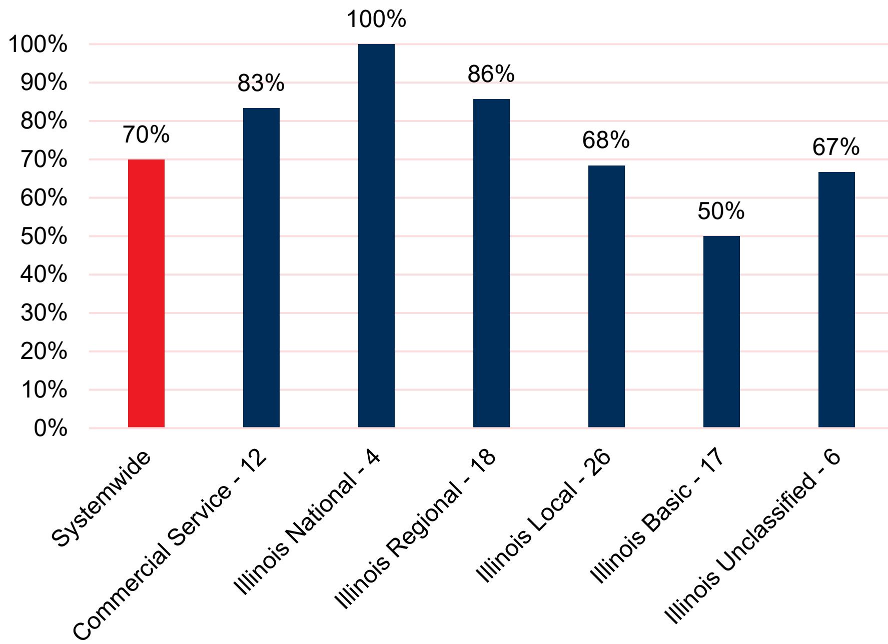
[108] The Interim Guidance is slated to be incorporated into a formal AC; publication is currently pending.

6.3.2.1. Buildings and Structures

Buildings and other tall structures are generally the most apparent type of incompatible development near an airport, particularly when located immediately off a runway end. Depending on their purpose, large structures can accommodate large numbers of people, who are all put at risk should an accident occur. The FAA's Interim Guidance notes residences, schools, churches, hospitals or other medical care facilities, and commercial/industrial buildings as examples of incompatible uses. These facilities also support noise-sensitive populations who require careful attention from a land use and zoning perspective.

As **Figure 6.9** illustrates, 70 percent of IASP airports were identified as having some form of building within at least one of their RPZs. These buildings mostly include private homes and businesses as well as airport related buildings. This includes 83 percent of Commercial Service, all Illinois National, and 86 percent of Illinois Regional airports. Sixty-eight percent of Illinois Local, 50 percent of Illinois Basic, and 67 percent of Illinois Unclassified airports have some form of building within at least one of their RPZs.

Figure 6.9. RPZ Analysis – Buildings or Structures



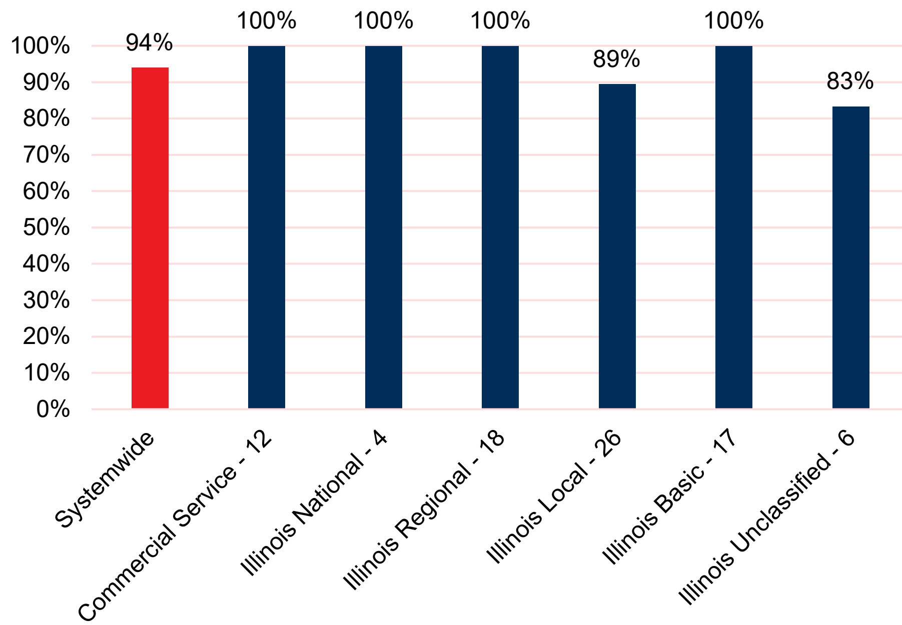
Sources: Kimley-Horn 2020, Google Earth 2020

6.3.2.2. Public Roadways

Roadways are specifically identified by the FAA's Interim Guidance as an incompatible land use inside RPZs. High-traffic facilities and roads where traffic is frequently stopped deserve particular attention due to the number of people who could be impacted should an incident occur. Land use planners and airports must also consider the height of mobile objects traveling through RPZs to optimize safety for drivers and pilots.

Based on a desktop visual assessment using Google Earth imagery, 94 percent of airports have at least one public roadway traveling through an RPZ, as shown in **Figure 6.10**. This includes all Commercial Service, Illinois National, Illinois Regional and Illinois Basic airports, as well as 89 percent of Illinois Local and 83 percent of Unclassified airports. It is important to note that the FAA's RPZ guidance has changed over time and that many of the roads were built prior to current guidance indicating a road was an incompatible land use. FAA is not requiring airports to specifically address the existing incompatibilities until a change is made to the airfield or there is additional study during planning efforts at the airport.

Figure 6.10. RPZ Analysis – Public Roadway(s)



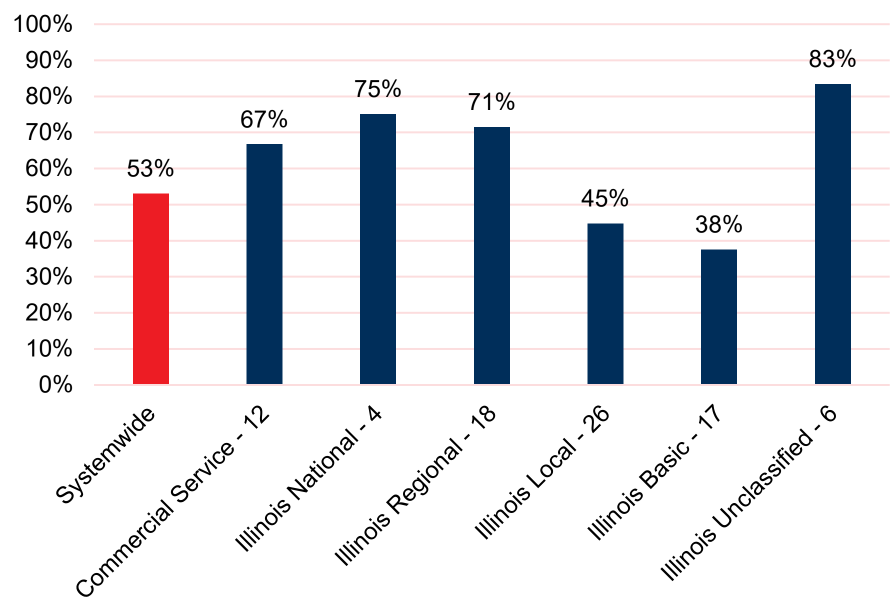
Sources: Kimley-Horn 2020, Google Earth 2020

6.3.2.3. Other Incompatible Uses

The Interim Guidance provides several other more unique uses that can result in high concentrations of people or significant threats in the case of an aircraft overrunning the runway end, landing prior to the runway threshold, or otherwise facing an incident immediately prior to or after a runway end. Fuel storage facilities and hazardous material storage may explode if struck by an aircraft. Utility infrastructure often exceeds height restrictions, and nearby populations could be severely affected should an aircraft impact electrical, water, natural gas, or other critical facilities. Solar installations can result in glare for pilots (see **Section 6.3.1.3** for more information about the impacts of glare on aircraft operations). Dense and/or tall vegetation can be a concern due to height and the fact that it may attract wildlife (see **Section 6.3.1.4** for details about wildlife attractants near airports).

Figure 6.11 reveals that 53 percent of system airports in Illinois have some other type of incompatible land use within their RPZs, beyond roadways or buildings/structures. Sixty-seven percent of Commercial Service, 75 percent of Illinois National, 71 percent of Illinois Regional, and 83 percent of Illinois Unclassified airports have some other type of incompatible land use within their RPZ(s). Illinois Local and Illinois Basic airports fare slightly better, with 45 percent and 38 percent, respectively, having some other type of incompatible land use within their RPZs.

Figure 6.11. RPZ Analysis – Other Incompatible Uses



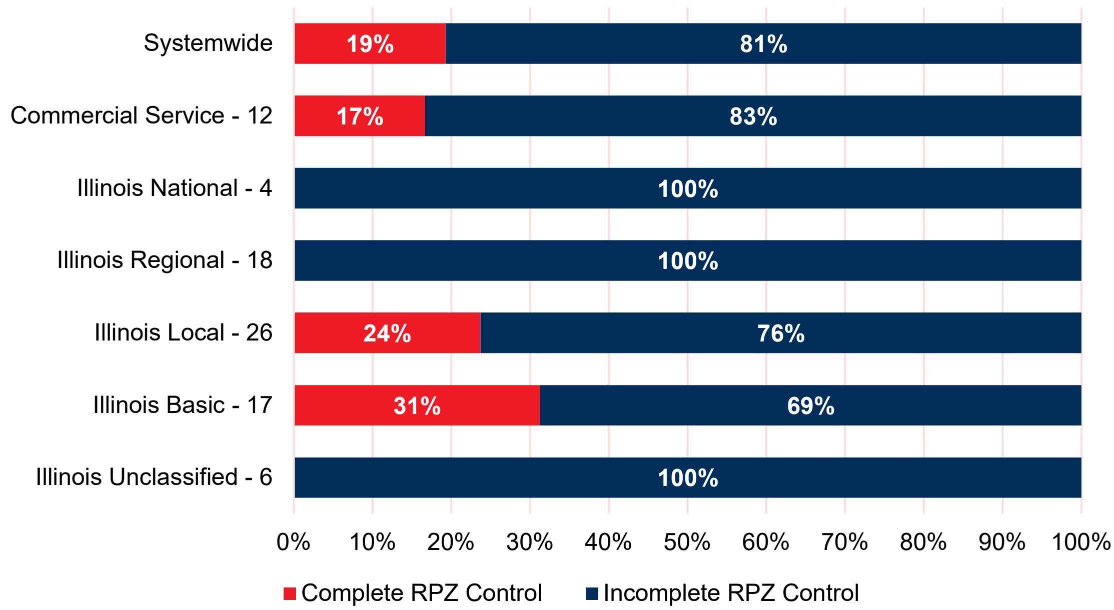
Sources: Kimley-Horn 2020, Google Earth 2020

6.3.2.4. RPZ Ownership and Control

As mentioned above, many airports do not fully own their RPZs and may only have partial or no control. According to the FAA AC 150/5300-13A, change 1, the RPZ's ability to enhance safety "is best achieved through airport owner control over RPZs. Control is preferably exercised through the acquisition of sufficient property interest in the PRZ and includes clearing RPZ areas (and maintaining them clear) of incompatible objects and activities".

To understand the condition of RPZ ownership in the state of Illinois, system airports were asked to identify the percentage of which each runway end's RPZ is controlled through either fee simple acquisition, avigation easement (or both), or uncontrolled. The RPZ analysis was conducted based on airport responses, reviews of available ALPs, and visual analysis using Google Earth and RPZ boundaries. In this analysis, complete RPZ control can only occur if an airport fully owns the land within the RPZ, has full avigation easement, or some combination of the two summing to 100 percent. As shown in **Figure 6.12**, 19 percent of system airports have achieved complete control over their RPZs for all runway ends. Seventeen percent of Commercial Service, 24 percent of Illinois Local, and 31 percent of Illinois Basic airports have achieved complete control of their RPZs. The Illinois National, Illinois Regional, and Illinois Unclassified airports do not have complete ownership over their RPZs.

Figure 6.12. RPZ Ownership



Source: Kimley-Horn 2020, IASP Inventory Form 2020, Google Earth 2020

6.3.3. Obstruction Analysis

According to the FAA, an obstruction is defined as "all fixed (temporary or permanent) and mobile objects or parts thereof that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight". The FAA defines an obstruction as any object higher than a height relative to:

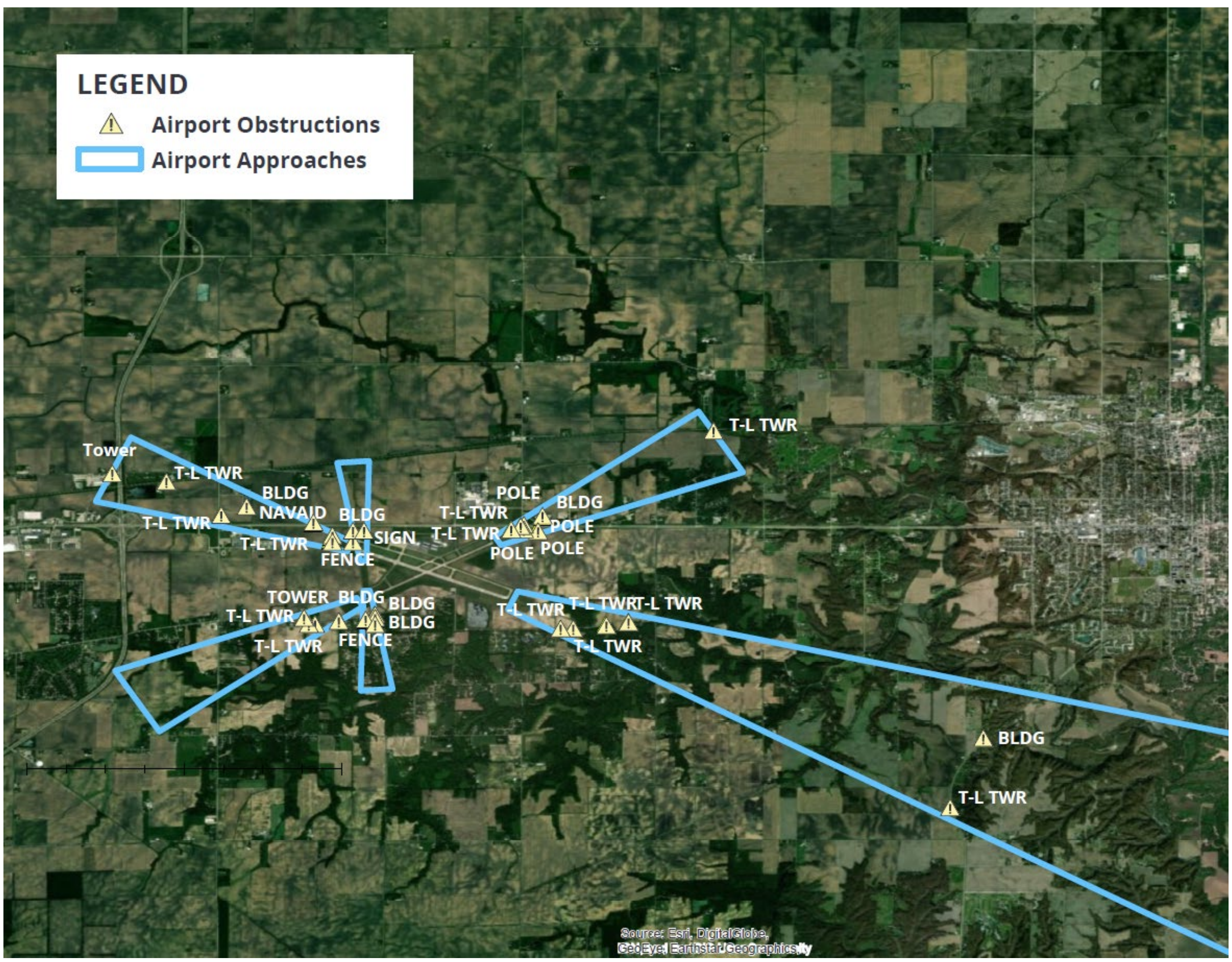
- Of 500 feet above ground level (AGL) at the site of the object
- Of 200 feet AGL or above the established airport elevation, whichever is higher, within three nautical miles of the established Airport Reference Point (ARP)
- That is within the terminal obstacle clearance area which results in the vertical distance between any point on that object and an established minimum IFR altitude within that area, being less than what is the required obstacle clearance
- Within an en-route obstacle clearance area of a federal airway or approved airway route, which would make the minimum obstacle clearance altitude increase

Obstructions are particularly problematic when visibility is poor or cloud ceilings are low. In these conditions, aircraft operate under instrument flight rules (IFR), which provide a strict set of procedures that allow pilots to operate with minimal visual connection with the runway. IFR is established in large part by the height of objects in approach and departures routes. If obstructions are tall enough, these procedures may need to be revised to compensate for the change in slope that an aircraft must use in ascent and descent to safely clear the obstacle. Even small changes to the slope of an approach can result in displaced runway thresholds, which provides less distance for aircraft to stop before reaching the runway end.

Because of the significant threat caused by tall obstructions as well as their adverse impacts to aircraft operations, the FAA maintain records of all man-made obstructions that penetrate Part 77 imaginary surfaces in the Obstacle Authoritative Source (OAS). This database includes records for all airports within the U.S. and its territories, the Caribbean, Mexico, Canada, and the Pacific. Data is verified by the FAA's Obstacles Team prior to being entered into the OAS. Once verified, obstructions are categorized into one of 22 potential types, and updates are posted every 56 days.

An obstruction analysis was conducted for IASP system airports using data collection from the OAS and existing geographic information system (GIS) information. OAS data was mapped into each airport's Part 77 approach surfaces to identify the number and type of man-made obstructions within each approach surface. An example map is presented in **Figure 6.13**. It is important to note that OAS only includes man-made structures. Trees and other high vegetation frequently occur within approach surfaces and are one of the most common close-in obstructions identified at airports. Airport must pay diligent attention to natural obstructions and implement appropriate mitigation measures to ensure the highest level of safety for aircraft operations. It should also be noted that obstructions identified in the OAS need verification and further evaluation prior to any mitigation by the airports.

Figure 6.13. Example Obstruction Analysis



Sources: Kimley-Horn 2020, ESRI 2020, OAS 2020 (data accessed February 2020)

6.3.3.1. Findings

The OAS data reports 3,302 obstructions penetrating approach surfaces at Illinois's system airports. Poles represent the majority of obstructions in the state (64 percent), followed by transmission line towers (54 percent), buildings (54 percent), towers (49 percent), navigational aids (NAVAIDS) (35 percent), and signs (35 percent). As shown in **Figure 6.14**, 84 percent of airports systemwide have some sort of obstacle that penetrates the Part 77 Approach Surface.

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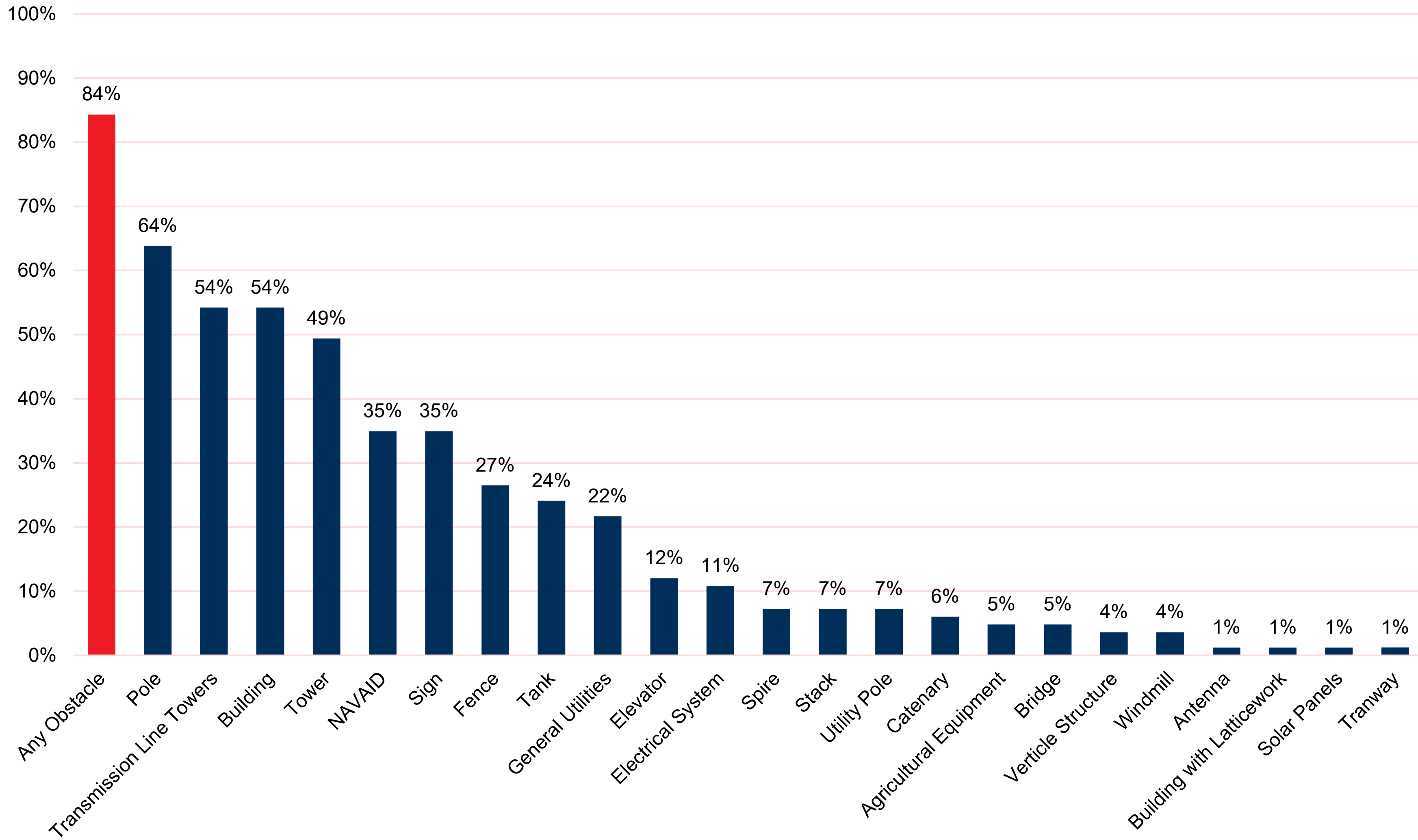
Figure 6.14. Obstacles with Part 77 Approach Surfaces at IASP Airports, by Type



Sources: Kimley-Horn 2020, ESRI 2020, OAS 2020 (data accessed February 2020)

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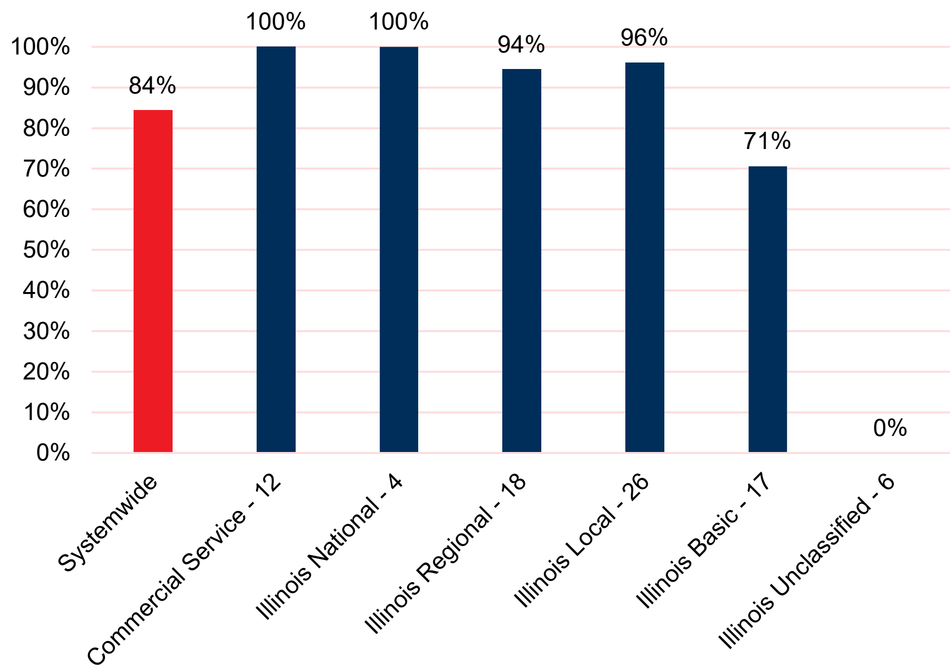
As noted above, 84 percent of airports are affected by at least one obstruction penetrating an approach surface. This includes 100 percent of all Commercial Service, Illinois National, 94 percent Illinois Regional airports as well as 96 percent of Illinois Local airports, as shown in **Figure 6.15**. The state's smaller airports are less impacted, with 71 percent of Illinois Basic airports with verified obstructions penetrating imaginary surfaces. None of the Illinois Unclassified airports are impacted by obstructions penetrating imaginer surfaces. At the airport-specific level, Chicago O-Hare International has the most obstacles (1,085) followed by Chicago Midway International (474), Dupage (154), Decatur (117), Chicago Executive (106), and Chicago Illinois Regional (104). All other facilities have 90 or less obstacles. Twenty-six airports have between one and 10 obstacles, and 13 facilities have none. Airport-specific results are presented in **Table 6.4** at the end of this chapter.

Figure 6.15. Obstruction Analysis – Percent of Airports with Obstructions by Classification



Sources: Kimley-Horn 2020, ESRI 2020, OAS 2020 (data accessed February 2020)

6.3.4. Summary of Land Use Evaluation

This section of the IASP summarized the importance of land use compatibility in protecting navigable airspace and people and property in the vicinity of airports. To maintain the highest levels of safety for all parties, airports and sponsors must work with local land use planners and zoning authorities to implement and enforce zoning laws that support airport land use compatibility. While the FAA has jurisdictional authority over height obstructions that penetrate imaginary surfaces, airports themselves have little direct control over nearby land use. Proactive engagement with local officials and an ongoing educational campaign for land use planners are important to show these decisionmakers that airports can successfully coexist with residents and businesses. As noted previously, the results of each analysis are presented by airport in **Section 6.6**, see **Table 6.3. Part 77 and RPZ Land Use Evaluations**, by Airport, **Table 6.4. Number of Approach Surface Obstructions**, by Airport, and **Table 6.5. Environmental Impacts**, by Airport.

6.4. Environmental Considerations

As shown throughout the discussions above, airports are impacted not only by activities and actions occurring on-airport property but also by their surrounding environments. Proposed airport actions involving federal money must evaluate their potential impact on the environment through the NEPA process (see **Section 6.2** for an overview of NEPA). On a broader scale, natural features on or near an airport can influence its development potential, expansion opportunities, and the type and frequency of aviation activities best suited to the facility. Further, the presence of certain types of natural features may trigger environmental laws and regulations that need to be addressed during airport planning, design, and construction phases.

The IASP conducted a high-level evaluation of environmental features to better understand their potential impacts on Illinois airports. This evaluation focused on Illinois airports' Runway Safety Areas (RSAs) and a larger buffer area surrounding the RSAs. RSAs are rectangular areas surrounding the runway based on the Runway Design Code (RDC). These areas are designed to protect the safety of aircraft that undershoot, overrun, or veer off the runway, as well as provide access to emergency crews in the case of such incidents. For most airports, the dimensions range from 120 feet to 500 feet in width and 240 feet to 1,000 feet in length beyond the departure end of the runway. These standards are based on 90 percent of overruns being contained within the RSA.

For this evaluation, buffers of either 500 or 1,000 feet were mapped around each RSA, as depicted in **Figure 6.16**. These buffers were used to evaluate environmental features near the airfield that have the potential to impact development. The size of the buffer was determined by NPIAS classification. Commercial Service, Illinois National, and Illinois Regional airports were evaluated with a 1,000-foot buffer surrounding each RSA, while Illinois Local, Illinois Basic, and Illinois Unclassified airports were evaluated with a 500-foot buffer.

It must be noted that environmental features located beyond the RSA buffer have the potential to affect airport development and ultimately trigger federal and state regulatory requirements. It is for this reason that environmental reviews must be conducted at the airport-specific level for development projects. Environmental reviews should be conducted early to ensure projects are not delayed due to unforeseen regulatory or permitting requirements and so appropriate mitigation techniques can be incorporated into project design.

Figure 6.16. Example RSA Analysis

Source: Kimley-Horn 2020

GIS data were used for this environmental evaluation, as provided by both state and federal sources, including state agencies, the United States Department of Agriculture (USDA), and the EPA, dependent on the source with more recent data. Data for airport environmental features were downloaded and evaluated based on the FAA SOP 5.1 for Categorical Exclusion (CATEX) Determinations (SOP 5.1). SOP 5.1 outlines 25 categories of potential CATEX determinations which may impact on-airport construction. **Table 6.1** lists the 25 categories, notes which categories were applicable to a GIS analysis in Illinois, notes which categories had GIS data available, and notes which categories were found to be within the RSA buffers (if applicable).

Table 6.1. SOP 5.1 Analysis Summary

SOP Category	Applicable	GIS Data Available	Within RSA Buffer
5-2.b(1) National Historical Preservation Act (NHPA) resources	Yes	Yes	Yes
5-2.b(2) Department of Transportation Act Section 4(f) and 6(f) resources	Yes	No (data included as part of other SOP categories)	N/A
5-2.b(3) Threatened or Endangered Species	Yes	Yes	Yes
5-2.b(4) Other Resources			
a) Fish and Wildlife Coordination Act	Yes	No	N/A
b) Wetlands and Other Waters of the U.S.	Yes	Yes	Yes
c) Floodplains	Yes	Yes	Yes
d) Coastal Resources	Yes	Yes	No
e) National Marine Sanctuaries	Yes	No	No
f) Wilderness Areas	Yes	Yes	No
g) Farmland	Yes	Yes	Yes
h) Energy Supply and Natural Resources	No*	N/A	N/A
i) Wild and Scenic Rivers	Yes	Yes	No
j) Solid Waste Management	Yes	Yes	No
SOP Categories, Continued			
5-2.b(5) Disruption of an Established Community	No*	N/A	N/A
5-2.b(6) Environmental Justice	No*	N/A	N/A
5-2.b(7) Surface Transportation	No*	N/A	NA
5-2.b(8) Noise	No*	N/A	N/A
5-2.b(9) Air Quality	Yes	Yes	Yes
5-2.b (10) Water Quality	Yes	Yes	Yes
5-2.b (11) Highly Controversial on Environmental Grounds	No*	N/A	N/A
5-2.b(12) Inconsistent with Federal, State, Tribal or Local Law	No*	N/A	N/A
5-2.b(13) Light Emissions, Visual Effects, and Hazardous Materials			
a) Light Emissions and Visual Effects	No*	N/A	N/A
b) Hazardous Materials	Yes	Yes	Yes
SOP Categories, Continued			
5-2.b(14) Public Involvement	No*	N/A	N/A
5-2.b(15) Indirect/Secondary/Induced Impacts	No*	N/A	N/A

*Not applicable at a statewide level – needs to be evaluated on an airport-by-airport basis

Source: Kimley-Horn 2020, FAA Standard Operating Procedure 5.1

As shown in **Table 6.1**, of the 25 SOP categories, 15 are found to be applicable to a GIS analysis in Illinois. Some categories, such as 5-2.b(4) Other Resources e) National Marine Sanctuaries, are not applicable because these resources do not exist in Illinois. Other categories, such as 5-2.b(5) Disruption of an Established Community are not applicable because these resources are not quantifiable in GIS.

Of these 12 SOP categories, 12 had GIS data available for analysis. Only two category, 5-2.b(2) Department of Transportation Act Section 4(f) and 6(f) resources and 5-2.b(4) Other Resources a) Fish and Wildlife Coordination Act, had no available GIS data. Another category, 5-2.b(4) Other Resources g) Farmland, did have available GIS data, but in a format that is incompatible with the analysis used for the remaining ten categories. For this category, a different GIS analysis was performed, which will be described in a later section.

Of the 11 SOP categories which were applicable to a GIS analysis in Illinois and for which GIS data was available, eight were found within the RSA buffers. To summarize, these eight categories are:

- National Historical Preservation Act (NHPA) Resources
- Threatened or Endangered Species
- Wetlands and Other Waters of the U.S.
- Floodplains
- Farmland
- Air Quality
- Water Quality
- Hazardous Materials

A more detailed discussion on each of these topics is provided on the following pages.[109] Note that the information presented here is not designed to comply with the provisions of NEPA nor provide the same level of detail as an airport-specific study. Instead, the IASP environmental analysis provides insight into the types of environmental considerations that most commonly affect state system airports. IDOT can use this information to help airports understand their roles and responsibilities in the environmental review process and may consider draft specific guidance for airports based on the findings.

6.4.1. National Historical Preservation Act (NHPA) Resources

The National Historic Preservation Act of 1966 (NHPA) and the Archaeological and Historic Preservation Act of 1974 primarily regulate and protect historical, architectural, archaeological, and cultural resources at the federal level. These laws protect a range of sites, properties, and physical resources relating to human activities, society, and cultural institutions. These resources can include structures, objects, and districts considered important to culture or community, as well as aspects of the physical environment, natural features, and biota.

Section 106 of the NHPA specifically requires federal agencies to consider the effects of their actions on properties listed or eligible for listing on the National Register of Historic Places (NRHP or National Register). The SHPO is responsible for implementing this process in Illinois. SHPO consults with federal funding agencies (e.g., the FAA) and project applicants (e.g., airport sponsors) to conduct Section 106 reviews in compliance with the NHPA. A site only must be eligible for inclusion on the NRHP to trigger a Section 106 review, so it is critical that airports work with the SHPO early in the planning process to identify any potentially significant sites in their vicinities. **Figure 6.17** shows that seven percent of system airports have a historic or cultural resource listed in the National Register within their RSA buffer zones.[110] This includes three Commercial Service airports, one Illinois Regional airport, and two Illinois Local airports.

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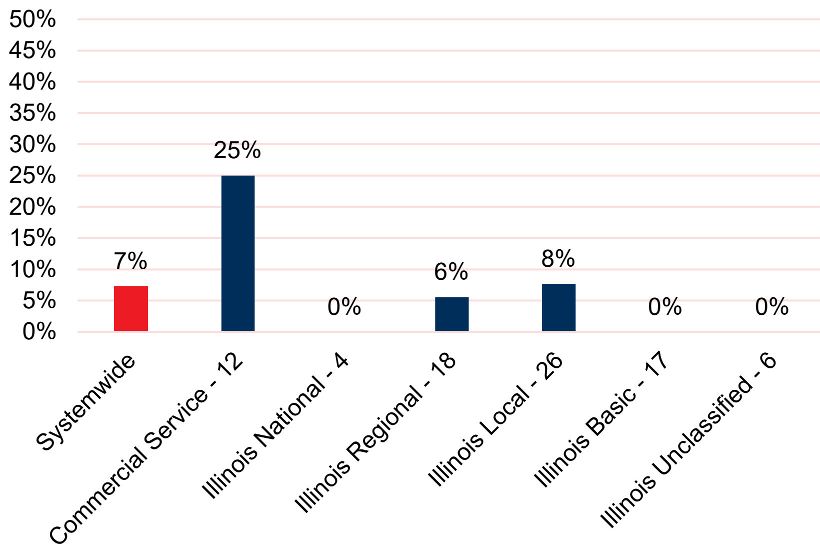
[109] **Table 6.5** at the end of this chapter presents the results of all features evaluated as part of the IASP by airport.
[110] Note that these data only include sites currently listed on the National Register, and does not include those *eligible* to be listed

Figure 6.17. RSA Analysis - National Historical Preservation Act (NHPA) Resources



Sources: Kimley-Horn 2020, ESRI 2020, NPS 2014

6.4.2. Threatened or Endangered Species

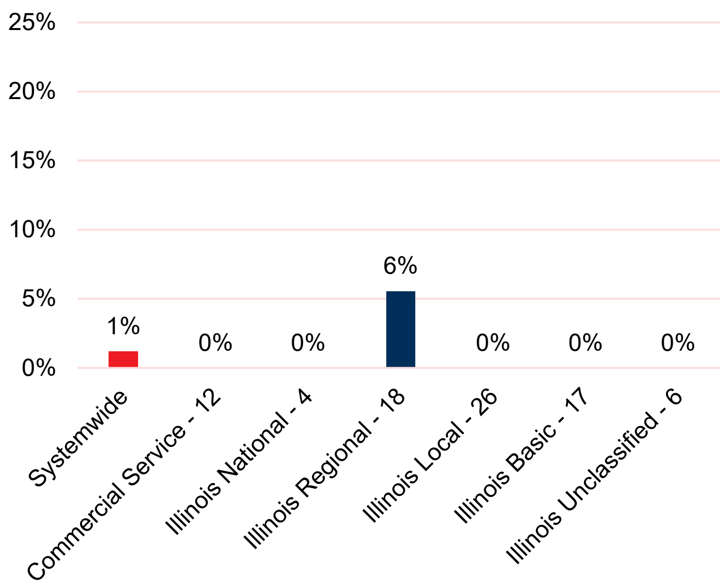
Proposed federal actions that may affect the nation's water resources and designated threatened and endangered species are subject to numerous laws and regulations designed to maintain healthy levels of flora (plants) and fauna (fish, birds, mammals, reptiles, amphibians, etc.) within the U.S. Federally designated threatened and endangered species are in danger of extinction now or within the foreseeable future. These species are of highest conservation priority and fall under the protection of the Endangered Species Act (ESA). Airports must evaluate any proposed development action for potential impacts on biotic resources or threatened or endangered species. These evaluations should be conducted in consultation with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service, or both (as applicable). At the state level, the Illinois Endangered Species Protection Board under the Illinois Department of Natural Resources (DNR) is responsible for protecting plants and animals native to Illinois that are in danger of being "lost from the wild in Illinois".[111]

For this analysis, the IASP looked specifically at critical habitats located within the study area of each airport. Critical habitats are geographic areas that "contain the physical or biological features that are essential to the conservation or endangered and threatened species" that have been listed under the ESA.[112] A critical habitat designation does not mean that development cannot occur. Instead, this designation only affects actions that are likely to destroy or adversely modify critical habitat. In such a case, the USFWS works with the Federal agency proposing the action (i.e., the FAA) to amend projects to minimize harm. The spatial data in this analysis was obtained from the USFWS' Threatened and Endangered Species Active Critical Habitat Report (updated July 9, 2020).

[111] https://www2.illinois.gov/dnr/ESPB/Pages/default.aspx
[112] https://www.fws.gov/endangered/esa-library/pdf/critical_habitat.pdf

The results of this analysis, shown in **Figure 6.18**, revealed that Illinois Valley Regional Airport (VYS) is the only airport in the state with critical habitat within its RSA buffer area. This airport must closely coordinate with the FAA and USFWS to ensure any proposed development actions comply with NEPA, the ESA, and implementing state and federal regulations.

Figure 6.18. RSA Analysis –Threatened and Endangered Species (Critical Habitat)



Sources: Kimley-Horn 2020, ESRI 2020, USFWS 2020

6.4.3. Wetlands and Other Waters of the U.S.

According to the U.S. Department of Transportation's (USDOT's) Order 5660.1A, "Preservation of the Nation's Wetlands," wetlands are defined as "lowlands covered with shallowing and sometimes temporary or intermittent waters," including (but not limited to) swamps, marshes, wet meadows, river overflows, and shallow lakes and ponds with emergent vegetation. In general, wetlands are defined in terms of their hydrology, vegetation, and soil type. Wetlands can be non-jurisdictional or jurisdictional depending on whether they involve a navigable water of the U.S.; this distinction governs the agencies and procedures for actions affecting those ecosystems. In both cases, federally funded airport development projects must identify potential impacts on wetlands and avoid impacts when a practicable alternative exists. Examples of airport actions that could cause wetland impacts include new or expanded terminal and hangar facilities or access roadways, runway and taxiway construction or expansion, and the installation of NAVAIDs.

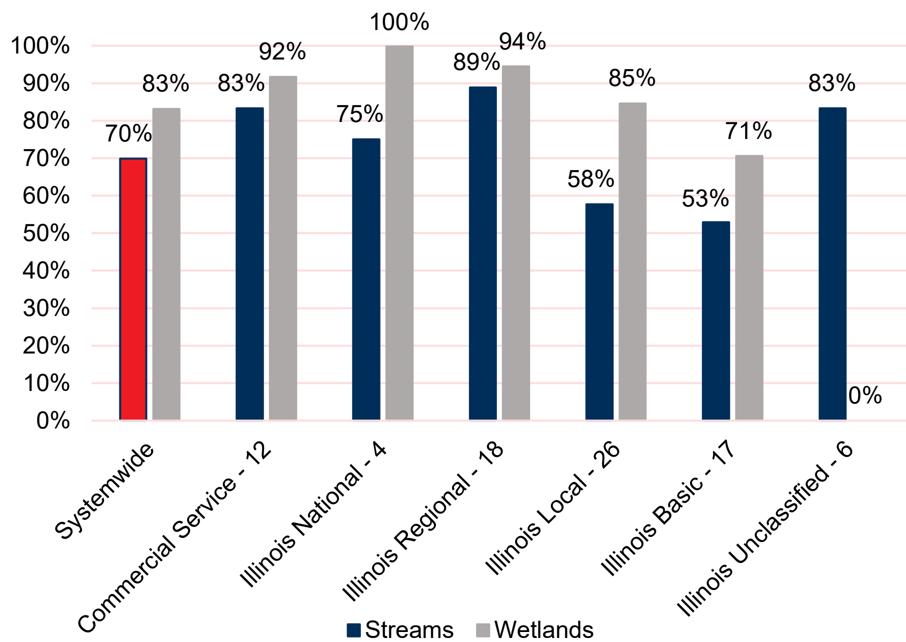
Wetlands and riparian habitations are essential habitats for many of Illinois's fish, wildlife, invertebrate, and plant species. According to Illinois Wildlife Action Plan (IWAP), "wetlands were historically a dominant feature of the Illinois landscape but have been reduced by more than 90 percent for agriculture, development, and other land uses (Dahl 2006). Of the remaining wetlands in Illinois, most have been highly degraded."[113] Wetlands are regulated under Section 401 of the Clean Water Act (CWA) at the

[113] https://www2.illinois.gov/dnr/conservation/IWAP/Pages/Wetlands.aspx

federal level and the Illinois Interagency Wetland Policy Act of 1989 (IWPA) and Rivers, Lakes, and Streams Act (RLSA) at the state level. The Illinois EPA receives its authority from Section 401 of the CWA to set water quality standards and administer the state's Section 401 certification program. The Illinois DNR receives its authority to regulate state-funded projects and activities that impact wetlands on public lands from the IWPA and RLSA. To improve wetland habitat in Illinois including the restoration, enhancement, and management of priority sites, the Illinois DNR administers the Wetland Campaign.[114]

It is important for IDOT and airports to coordinate with the appropriate state agencies to ensure proposed airport actions do not degrade existing wetland and riparian habitats. Not only do they provide essential biological services, but such areas are also attractive to many types of wildlife—including many which rank high on the FAA's list of hazardous wildlife species (see AC 150/5200-32, "Reporting Wildlife Aircraft Strikes," Table 1). Airports and projects need to be reviewed on a case-by-case basis to identify potential issues of concern, as many factors influence riparian areas' and wetlands' potentials to impact airport and aircraft operations, such as size, proximity to AOAs, canopy cover, and vegetation composition. The importance of considering such habitats and water sources cannot be understated; 70 percent of airports have streams and 83 percent of airports have wetlands within their RSA buffer zones. The percent of system airports by airport classification with wetlands and streams within RSA buffer zones is depicted in **Figure 6.19**.

Figure 6.19. RSA Analysis – Wetlands and Other Waters of the U.S.



Sources: Kimley-Horn 2020, ESRI 2020, National Wetlands Inventory 1987, U.S. Fish and Wildlife Service

[114] Ibid

6.4.4. Floodplains

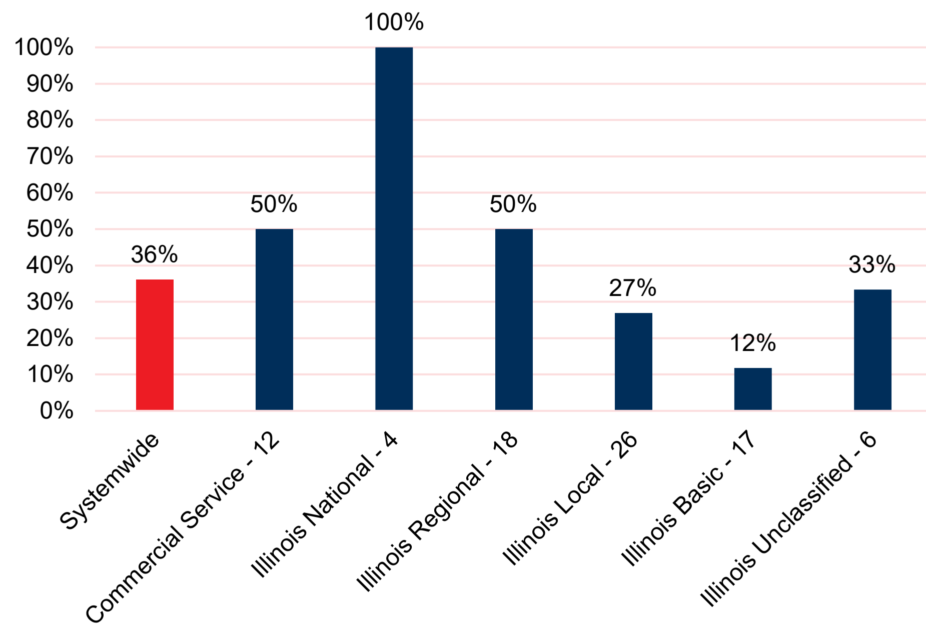
The Federal Emergency Management Agency (FEMA) was established to help the nation's communities manage their emergency management and disaster response and recovery activities. One of FEMA's primary directives is to assist with floodplain management. Floodplains is an area of land adjacent to a water body that is subject to frequent flooding. According to FEMA, floodplain management is a community-based effort to prevent or reduce the risk of flooding. FEMA has minimum floodplain management standards for communities participating in the National Flood Insurance Program (NFIP), although they advise that adopting higher standards will lead to stronger, safer communities.

FEMA provides flood hazard and risk data to help guide mitigation actions. One of the most important sources of these data are the FEMA flood maps. Flood mapping is an important part of the NFIP, as it is the basis of the NFIP regulations and flood insurance requirements. Flood maps are updated continually through a variety of processes, notably to reflect changes in flood likelihood in different areas.

It is important for airports to note their presence in a floodplain and to plan construction projects accordingly. Additional collaboration with FEMA and the NFIP may be warranted for certain construction projects, and construction plans may need to be altered to accommodate a propensity towards flooding.

As shown in **Figure 6.20**, 36 percent of airports statewide had a floodplain within their RSA buffer, including all Illinois National airports. These airports may need further coordination with FEMA and the NFIP to complete on-airport construction projects.

Figure 6.20. RSA Analysis – Floodplains



Sources: Kimley-Horn 2020, ESRI 2020, FEMA

6.4.5. Farmland

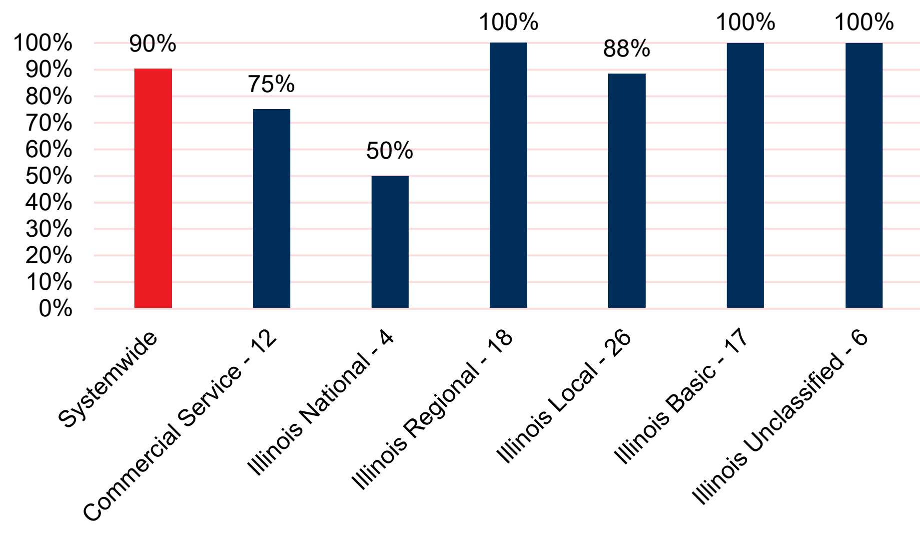
Farmland is a particularly important environmental resource in Illinois. According to the Illinois Department of Agriculture, the marketing of Illinois's agricultural commodities generates more than $19 billion annually. Illinois is the leading producer of soybeans, corn, and swine, and the state's diverse climate and varied soil types enable farmers to grow and raise many other agricultural commodities, including cattle, wheat, oats, sorghum, hay, sheep, and poultry. There are over 75,000 different farm operators, and the larger food and fiber industry employs over a million people.

Farmland is dispersed throughout the state. According to ACRP Report 27, *Enhancing Airport Land Use Compatibility* (ACRP Report 27), while agricultural and open space land uses in the airport environment can be an incompatible land use, they are also recognized as the least serious of the incompatible land uses. Considering that many airports were also established on agricultural land, it follows that agricultural land uses are common in the airport environment.[115]

The proximity of farmland, particularly row crops and orchards, to airports can increase the likelihood of wildlife strikes. Crops and vegetation can act as a wildlife attractant and depending on where they are located in the airport environment, may lead to wildlife and bird strikes with aircraft. Coordination between airports, local communities, and local farmers is encouraged to decrease the likelihood of such strikes.

The farmland data available for this analysis was in a different format to the other GIS data included in this analysis. Because of this reason, the existence of farmland in the airport RSA buffers was determined through a visual analysis, similar to the Part 77 and RPZ analysis' detailed in earlier sections of this chapter. The data used in this analysis is cropland data as provided by the USDA and is based on a satellite assessment of land uses. **Figure 6.21** shows that based on this analysis, farmland is a common occurrence in the airport environment. Ninety percent of all system airports have farmland in their RSA buffer, with all Illinois Regional, Illinois Basic, and Illinois Unclassified airports having farmland in their RSA buffer. Airports typically located in more developed areas have fewer instances of farmland in their RSA buffers, including 75 percent of Commercial Service and 50 percent of Illinois National airports.

Figure 6.21. RSA Analysis – Farmland



Sources: Kimley-Horn 2020, ESRI 2020, USDA

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115 ACRP Report 27, *Enhancing Airport* Land *Use Compatibility* (ACRP Report 27)

6.4.6. Air Quality

The Clean Air Act of 1970 (CAA) is one of the cornerstone environmental laws in the U.S. Under the CAA, the EPA has established air quality standards known as the National Ambient Air Quality Standards (NAAQS) for six criteria pollutants:

- Carbon monoxide (CO1)
- Nitrogen dioxide (NO2)
- Ozone (O3)
- Particulate matter (PM) including PM10 and PM2.5
- Sulfur dioxide (SO2)
- Lead (Pb)

Areas in compliance with the NAAQS are deemed safe for human health, public welfare, and the environment. While the federal government establishes standards, each state is responsible for designated areas that are in attainment, nonattainment, or maintenance for each of these criteria pollutants. State Implementation Plans (SIPs) are developed at the state level to identify the regulations, programs, policies, and procedures that state will employ to comply with the CAA.

The Illinois EPA Bureau of Air is responsible for ensuring clean and safe air in the state. The most current available Illinois Air Quality Report (2018) notes that air quality in the state was good or moderate 92 percent of the time in 2018. Air quality trends for most criteria pollutants are showing downward or stable trends below levels of the NAAQS.[116] Federally funded airports located in nonattainment or maintenance areas are required to complete an air quality analysis as part of proposed airport actions and development projects. Known as the General Conformity Rule, this requirement is designed so that aviation-related activities do not contribute to a new violation of the NAAQS, worsen existing violations, or delay attainment of the NAAQS. Airports within nonattainment areas must prepare an Airport Emissions Inventory to be included in their area's SIP. This can be challenging and difficult to quantify, as airport emissions come from a variety of sources that include aircraft engines and auxiliary power units, as well as various types of powered ground support equipment. Airports are also a source for automobile traffic and during construction have other powered equipment on site. To help airports understand this process and comply with the General Conformity Rule, ACRP developed Report 84: "Guidebook for Preparing Airport Emissions Inventories for SIPs" (2013).

In addition to the requirements that are specific to airports in nonattainment and/or maintenance areas, an air quality analysis may also be required for NEPA purposes in the following cases:

- GA airports with a total of 180,000 or more annual GA and air taxi operations
- Commercial service airports with more than 1.3 million annual enplanements
- Proposed projects that would increase automobile traffic congestion at off-airport road intersections to a level of service of D, E, or F

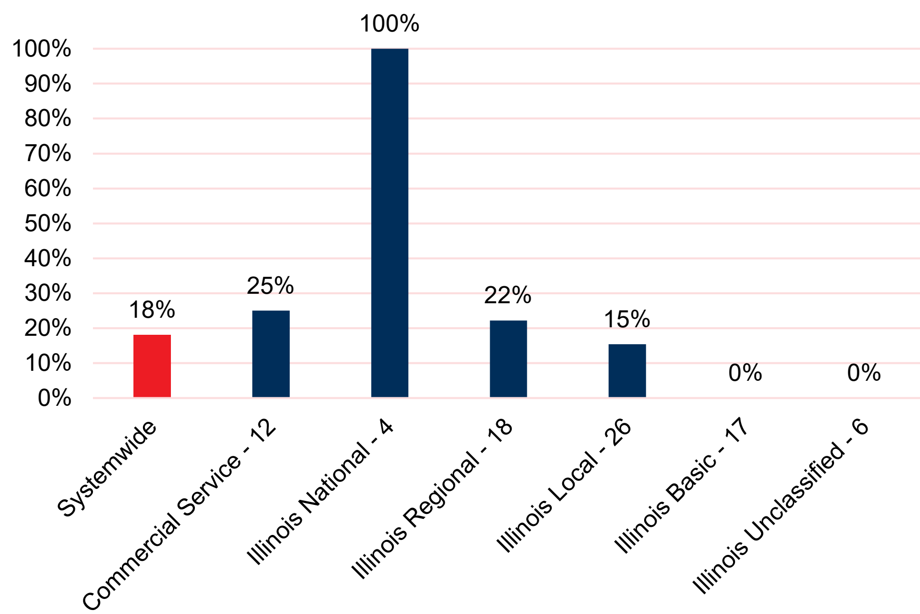
For more information on air quality policies and procedures, airports should consult FAA Order 1050.1F, "Environmental Impacts: Policies and Procedures" and FAA Order 5050.4B, "NEPA Implementing Instructions for Airport Actions". Other ACRP resources pertaining to airports and air quality include

[116] Illinois EPA (2018). "Illinois Annual Air Quality Report". Available online at https://www2.illinois.gov/epa/topics/air-quality/air-quality-reports/Documents/2018%20Annual%20Air%20Quality%20Report%20Final.pdf (accessed July 2020).

ACRP Report 11: "Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories," Report 71: "Guidance for Quantifying the Contribution of Airport Emissions to Local Air Quality," and Project 02-33: "Guidance for Estimating Airport Construction Emissions."

As depicted in **Figure 6.22**, 18 percent of Illinois' airports are located in nonattainment areas, including all four Illinois National airports. Airports in nonattainment areas will need to comply with the General Conformity Rule and should consider their location in a nonattainment area when planning for future growth.

Figure 6.22. RSA Analysis – Air Quality (Nonattainment Areas)



Sources: Kimley-Horn 2020, ESRI 2020, U.S. EPA

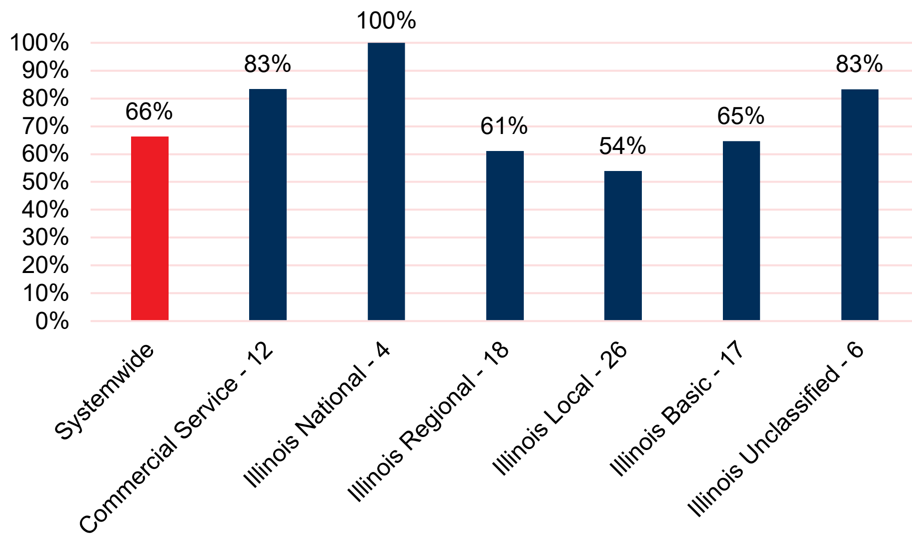
6.4.7. Water Quality

SOP 5.1 outlines several questions related to water quality, including whether water resources exist near the project area. Water resources include groundwater, surface water (lakes, rivers, etc.), sole source aquifers and public water supply. Illinois maintains a dataset of the source of water for 1224 municipalities throughout the state, which was used to address this SOP category. Municipalities rely on various sources of water to provide safe and clean drinking water to citizens. Water sources include lakes, groundwater, aquifers, and surface water. Municipal water sources serve additional functions beyond providing safe drinking water. Municipal water sources, such as lakes and rivers also serve important environmental functions.

Similar to the analysis done for wetlands and other water, it is important for IDOT and airports to coordinate with the appropriate state agencies to ensure proposed airport actions do not degrade municipal water sources. Similar to wetlands and other water, not only do municipal water sources provide potable water for communities and serve other important biological functions, but they may be attractive to wildlife. Airports and projects need to be reviewed on a case-by-case basis to identify potential issues of concern.

As shown in **Figure 6.23**, 66 percent of airports statewide have a municipal water source within their RSA buffer, including all four Illinois National airports. Eighty-three percent of Commercial Service, 61 percent of Illinois Regional, 54 percent of Illinois Local, 65 percent of Illinois Basic, and 83 percent of Illinois Unclassified airports have a municipal water source within their RSA buffer.

Figure 6.23. Water Quality (Municipal Water Source)



Sources: Kimley-Horn 2020, ESRI 2020, Illinois Geospatial Data Clearinghouse

6.4.8. Hazardous Materials

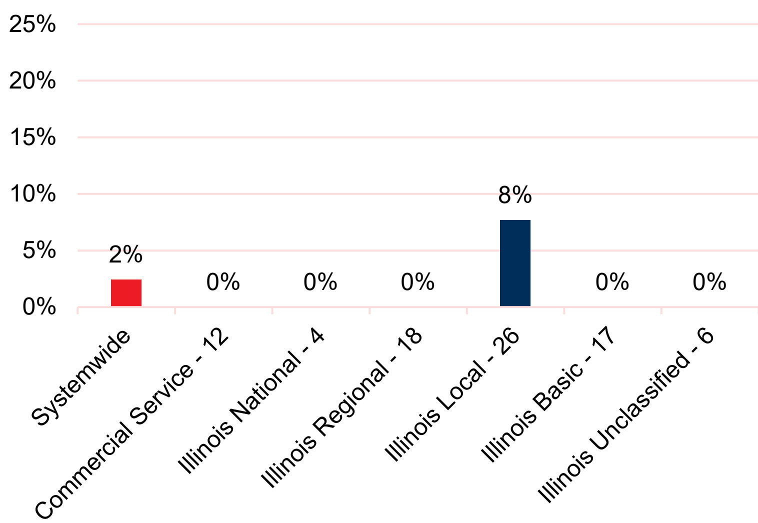
SOP 5.1 outlines several questions related to hazardous materials, including if potential construction will take place in an area that contains or previously contained hazardous materials. The term “hazardous materials” is sufficiently broad to cover a range of potential hazards. This analysis focused on data downloaded from the U.S. Environmental Protection Agency (EPA). EPA provides data on EPA-regulated facilities and cleanup sites.

EPA manages hazardous materials (hazardous waste) through a variety of programs and initiatives. EPA defines hazardous waste as waste that is dangerous or potentially harmful to human health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes. EPA regulates household, industrial, and manufacturing solid and hazardous wastes under the Resource Conservation and Recovery Act (RCRA). RCRA’s goals are to protect human health from the hazards of waste disposal; conserve energy and natural resources by recycling and recovery; reduce or eliminate waste; and clean up waste which may have spilled, leaked, or been improperly disposed of.[117] In any given state, EPA or the state's hazardous waste regulatory agency enforces hazardous waste laws. EPA encourages states to assume primary responsibility for implementing a hazardous waste program through state adoption, authorization, and implementation of the regulations.[118]

[117] https://www.epa.gov/regulatory-information-topic/regulatory-information-topic-waste
[118] https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-regulations

EPA maintains data on the cleanup progress profiles for several different categories of cleanup sites, including Superfund, RCRA Corrective Action, Brownfields, Emergency Responses, Incidents of National Significance, and Federal Facilities for which EPA collects/creates information. Cleanup sites may be subject to additional regulation under state and federal law, as well as posing a hazardous environment due to pollution or other environmental factors. It is important for IDOT and airports to coordinate with the appropriate state and federal agencies to ensure proposed airport actions do not impact or are not impacted by cleanup sites. In Illinois, only two percent of airports have a cleanup site within their RSA buffers, as shown in **Figure 6.24**. This percentage accounts for two Illinois Local airports.

Figure 6.24. RSA Analysis – Hazardous Materials (EPA Cleanup Sites)



Sources: Kimley-Horn 2020, ESRI 2020, EPA

6.4.8.1. Per- and Polyfluoroalkyl Substances (PFASs)

Per- and Polyfluoroalkyl Substances (PFAS) has entered the spotlight in the recent past due to its carcinogenic properties. PFAS is a chemical found in aqueous film-forming foam (AFFF) used to extinguish fires at airports. Recently, the impacts of PFAS entering the environment has become better understood and health concerns surrounding this issue resulted in regulatory changes to processes and procedures at airports with Airport Rescue and Fire Fighting (ARFF) operations. This has the potential to impact not just the 15 Part 139 airports that are required to have ARFF services, but all of the 19 airports with ARFF facilities across the state. (Please note, ALN and MVN previously were Part 139 certificated, but are now inactive.) The full impacts of the PFAS issue are still being discovered and mitigation options have not yet been widely implemented. To better accommodate and discuss this important issue, this topic will be covered in greater detail in **Chapter 4. Aviation Issues**.

6.4.8.2. Aircraft Fuel Types

Fuel availability and type is an important facility at airports as it is a driver of activity and revenue. Generally, airports provide AvGas (100LL [low lead]) used in piston-engine aircraft and/or Jet A, required by turbine engines that power jets. Jet A is becoming increasing popular as a result of increased global jet usage, but the need for AvGas remains.

The future of AvGas (100LL) is uncertain. Due to its harmful environmental effects, the FAA and US EPA have partnered to remove lead from aviation fuel. AvGas contains Tetraethyl Lead (TEL), an organic compound which is toxic if inhaled or ingested. Of the 83 airports in the IASP, 80 provide AvGas facilities. To further discuss AvGas, its impacts, and ongoing mitigation efforts, additional detail will be provided in **Chapter 4. Aviation Issues.**

6.4.9. Airport-Reported Environmental Issues

In addition to the environmental considerations and RSA buffer analyses noted above, airports were asked during the data collection process to identify the level of impact their airport experienced based on a number of environmental factors. Airports were asked to evaluate each environmental factor and determine the level of impact at or by their airport as “none,” “moderate,” or “significant.” For the basis of this analysis, an airport was counted as experiencing the impact if they reported a moderate or significant level of impact. Two Illinois Unclassified airports did not respond to this portion of the IASP Inventory Form. **Table 6.2** shows the number of system airports that reported being impacted by different environmental factors. Twenty-eight system airports reported experiencing some level of impact due to surrounding wetlands, 21 reported impacts due to floodplains, and twenty reported impacts due to incompatible land uses. Airports reported experiencing less environmental impacts due to noise (14 airports), water quality (10 airports), and solid waste (4 airports). No airports reported any impacts due to endangered species. As shown, the airport reported environmental impacts are fewer than the impacts determined by other analyses in previous sections of this chapter. The discrepancy between data highlights the level of unknown related to environmental impacts and land use incompatibilities at and surrounding system airports.

Table 6.2. Airport Reported Environmental Impacts

Environmental Factor	No. of Airports Impacted
Endangered Species	0
Floodplains	21
Incompatible Land Use	20
Noise	14
Solid Waste	4
Water Quality	10
Wetland	28

Source: Kimley-Horn 2020, IASP Inventory Form 2020

6.5. Summary

This land use and environmental overview was designed to provides airport managers, sponsors, and IDOT with a general understanding of the importance of airport compatible land use planning, environmental conditions affecting airports in the state, and their roles in ensuring that airports can safely and efficiently operate without causing undue impacts on their environs. Nearly all airports in Illinois are faced with a nearby land use that is not optimally aligned with aviation activities or an environmental consideration that requires additional environmental reviews and clearances. By identifying these issues during the system planning process, airports and IDOT can proactively identify actionable steps to resolve, mitigate, or otherwise address issues. In this way, issues can be optimally addressed instead of reacted to. The information presented in this chapter sets some initial groundwork for the recommendations that will be developed as one final outcome of the IASP. The conditions presented reveal some specific constraints common to airports in Illinois. To mitigate the most intense effects of these constraints, IDOT may want to consider developing policy recommendations or guidance to address the most acute and severe challenges.

6.6. Airport-specific Detail Tables

The following tables provide airport-specific results for the land use and environmental analyses presented in the preceding pages. In **Table 6.3** and **Table 6.5**, a check-mark (✓) indicates the presence of that issue. In **Table 6.4**, the number of each obstruction type within the airport's RPZ buffer zone are provided.

Table 6.3. Part 77 and RPZ Land Use Evaluations by Airport

Associated City	Airport Name	FAA ID	Part 77 Surfaces				Landfill Within Five Nautical Miles	RPZ		
			Residential	Major Development	Water Feature	Landfill		Public Roadway	Building or Structure	Incompatible Land Use
Commercial Service										
Belleville	Scott AFB/MidAmerica	BLV	✓	✓	✓			✓		✓
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	✓	✓	✓			✓		
Champaign/Urbana	University of Illinois-Willard	CMI	✓	✓	✓			✓	✓	✓
Chicago	Chicago Midway International	MDW	✓	✓	✓			✓	✓	
Chicago	Chicago O'Hare International	ORD	✓	✓	✓			✓	✓	
Chicago/Rockford	Chicago/Rockford International	RFD	✓	✓	✓	✓	✓	✓	✓	✓
Decatur	Decatur	DEC	✓	✓	✓			✓	✓	✓
Marion	Veterans Airport of Southern Illinois	MWA	✓	✓	✓			✓	✓	✓
Moline	Quad City International	MLI	✓	✓	✓		✓	✓	✓	
Peoria	General Downing-Peoria International	PIA	✓	✓	✓			✓	✓	✓
Quincy	Quincy Regional-Baldwin Field	UIN	✓	✓	✓			✓	✓	✓
Springfield	Abraham Lincoln Capital	SPI	✓	✓	✓		✓	✓	✓	✓
Illinois National										
Chicago/Aurora	Aurora Municipal	ARR	✓	✓	✓			✓	✓	
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	✓	✓	✓			✓	✓	✓
Chicago/Waukegan	Waukegan National	UGN	✓	✓	✓		✓	✓	✓	✓
Chicago/West Chicago	Dupage	DPA	✓	✓	✓			✓	✓	✓
Illinois Regional										
Alton/St Louis	St Louis Regional	ALN	✓	✓	✓		✓	✓	✓	✓
Cahokia/St Louis	St Louis Downtown	CPS	✓	✓	✓			✓	✓	
Carbondale/Murphysboro	Southern Illinois	MDH	✓	✓	✓		✓	✓	✓	✓
Chicago/Lake In The Hills	Lake in the Hills	3CK	✓	✓	✓			✓	✓	✓
Chicago/Romeoville	Lewis University	LOT	✓	✓	✓			✓	✓	✓
Danville	Vermilion Regional	DNV	✓	✓	✓			✓		✓
DeKalb	DeKalb Taylor Municipal	DKB	✓	✓	✓	✓	✓	✓	✓	
Effingham	Effingham County Memorial	1H2	✓	✓		✓	✓	✓	✓	✓
Galesburg	Galesburg Municipal	GBG	✓	✓	✓			✓	✓	✓
Jacksonville	Jacksonville Municipal	IJX	✓	✓	✓			✓	✓	
Kankakee	Greater Kankakee	IKK	✓	✓	✓			✓	✓	✓
Macomb	Macomb Municipal	MQB			✓		✓	✓	✓	
Mattoon/Charleston	Coles County Memorial	MTO	✓	✓	✓			✓	✓	✓
Monee	Bult Field	C56	✓		✓					
Morris	Morris Municipal-James R Washburn Field	C09	✓	✓	✓	✓	✓			

Associated City	Airport Name	FAA ID	Part 77 Surfaces				Landfill Within Five Nautical Miles	RPZ		
			Residential	Major Development	Water Feature	Landfill		Public Roadway	Building or Structure	Incompatible Land Use
Mount Vernon	Mount Vernon	MVN	✓	✓	✓			✓	✓	✓
Peru	Illinois Valley Regional-Walter A Duncan Field	VYS	✓	✓	✓			✓		
Sterling/Rockfalls	Whiteside County-Jos H Bittorf Field	SQI	✓	✓	✓			✓	✓	✓
Illinois Local										
Bolingbrook	Bolingbrook's Clow International	1C5	✓	✓	✓			✓	✓	
Canton	Ingersoll	CTK	✓	✓	✓			✓	✓	✓
Carmi	Carmi Municipal	CUL	✓	✓	✓			✓	✓	✓
Casey	Casey Municipal	1H8	✓	✓	✓			✓	✓	
Centralia	Centralia Municipal	ENL	✓	✓	✓			✓	✓	✓
Chicago	Lansing Municipal	IGQ	✓	✓	✓			✓	✓	
Chicago/Schaumburg	Schaumburg Regional	06C	✓	✓	✓			✓	✓	✓
Dixon	Dixon Municipal-Charles R Walgreen Field	C73	✓	✓	✓			✓	✓	✓
Freeport	Albertus	FEP	✓	✓	✓			✓	✓	✓
Greenville	Greenville	GRE	✓	✓	✓			✓		
Harrisburg	Harrisburg-Raleigh	HSB	✓	✓	✓			✓	✓	
Joliet	Joliet Regional	JOT	✓	✓	✓		✓	✓	✓	✓
Kewanee	Kewanee Municipal	EZI	✓	✓	✓			✓		
Lacon	Marshall County	C75	✓	✓	✓			✓	✓	✓
Lawrenceville	Lawrenceville-Vincennes International	LWV			✓					
Litchfield	Litchfield Municipal	3LF	✓	✓	✓		✓	✓	✓	
Mount Carmel	Mount Carmel Municipal	AJG			✓			✓		
Olney-Noble	Olney-Noble	OLY			✓			✓		✓
Pekin	Pekin Municipal	C15	✓	✓				✓	✓	
Peoria	Mount Hawley Auxiliary	3MY	✓	✓	✓			✓	✓	✓
Pinckneyville	Pinckneyville-Du Quoin	PJY		✓	✓		✓	✓		
Pontiac	Pontiac Municipal	PNT		✓	✓	✓	✓		✓	
Robinson	Crawford County	RSV	✓	✓	✓			✓		
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	✓	✓	✓			✓		
Shelbyville	Shelby County	2H0	✓	✓	✓			✓	✓	
Sparta	Sparta Community-Hunter Field	SAR	✓	✓	✓			✓	✓	✓
Illinois Basic										
Beardstown	Greater Beardstown	K06	✓	✓	✓			✓		✓
Benton	Benton Municipal	H96	✓	✓	✓			✓		✓
Cairo	Cairo Regional	CIR		✓	✓			✓		
Fairfield	Fairfield Municipal	FWC	✓	✓	✓	✓	✓	✓	✓	
Flora	Flora Municipal	FOA	✓	✓	✓			✓	✓	
Havana	Havana Regional	9I0		✓				✓		

Associated City	Airport Name	FAA ID	Part 77 Surfaces				Landfill Within Five Nautical Miles	RPZ		
			Residential	Major Development	Water Feature	Landfill		Public Roadway	Building or Structure	Incompatible Land Use
Lincoln	Logan County	AAA	✓	✓	✓			✓	✓	
Metropolis	Metropolis Municipal	M30	✓	✓	✓			✓	✓	✓
Monmouth	Monmouth Municipal	C66	✓	✓	✓			✓	✓	✓
Mount Sterling	Mount Sterling Municipal	I63	✓	✓	✓			✓		
Pittsfield	Pittsfield Penstone Municipal	PPQ		✓	✓			✓		✓
Paris	Edgar County	PRG			✓			✓		
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	✓	✓	✓			✓	✓	
Salem	Salem-Leckrone	SLO	✓	✓	✓			✓		
Savanna	Tri-Township	SFY	✓	✓	✓			✓	✓	✓
Taylorville	Taylorville Municipal	TAZ	✓	✓	✓		✓	✓	✓	✓
Vandalia	Vandalia Municipal	VLA			✓			✓		
Illinois Unclassified										
Greenwood/Wonder Lake	Galt Field	10C	✓	✓	✓			✓	✓	✓
Harvard	Dacy	0C0	✓	✓	✓			✓		✓
Paxton	Paxton	1C1	✓		✓			✓	✓	✓
Poplar Grove	Poplar Grove	C77	✓	✓	✓			✓	✓	✓
Rushville	Schuy-Rush	5K4	✓	✓	✓			✓	✓	✓
Tuscola	Tuscola	K96	✓	✓	✓					

Note: Part 77 and RPZ land use assessments are only meant to provide context within the airport environs. The results of these analyses do not necessarily indicate there is a need for any action to be taken.

Sources: Kimley-Horn 2020, ESRI 2020

ILLINOIS AVIATION SYSTEM PLAN

Table 6.4. Number of Approach Surface Obstructions by Airport

Associated City	Airport	FAA ID	Agricultural Equipment	Antenna	Building	Building - Tower	Bridge	Catenary	Electrical System	Grain Elevator	Fence	General Utilities	NAVAID	Pole	Sign	Solar Panels	Spire	Stack	Tank	Transmission Lines	Tower	Tramway	Utility Pole	Vertical Structure	Windmill	Grand Total
Commercial Service																										
Belleville	Scott AFB/MidAmerica	BLV												13			1				1					**15**
Bloomington/ Normal	Central IL Regional Airport at Bloomington-Normal	BMI			3					1		1	1	4	1					84	9					**104**
Champaign/ Urbana	University of Illinois-Willard	CMI			2								1	3	1					20	3					**30**
Chicago	Chicago Midway International	MDW			88						12		4	204	12		1	8	5	109	27	1	2		1	**474**
Chicago	Chicago O'Hare International	ORD		1	88	4	26		1		16		11	684	43	4	1	1	12	66	84		5	38		**1,085**
Chicago/ Rockford	Chicago/Rockford International	RFD			6							3	2	1	1				1	25	9					**48**
Decatur	Decatur	DEC			4								10	3	1		1	1		93	4					**117**
Marion	Veterans Airport of Southern Illinois	MWA			3						5	2		9	3				1	9	3					**35**
Moline	Quad City International	MLI			41								3	2	3					5	4					**58**
Peoria	General Downing-Peoria International	PIA			8					1	6	1	15	17					1	35	6					**90**
Quincy	Quincy Regional-Baldwin Field	UIN			1					2	4		1	4	1					25	1					**39**
Springfield	Abraham Lincoln Capital	SPI			1				1	1			2						1	1	15					**22**
Illinois National																										
Chicago/Aurora	Aurora Municipal	ARR			6						1		1							10	4					**22**
Chicago/ Prospect Heights/ Wheeling	Chicago Executive	PWK			17		8				4	4	1	41	9					12	7		1	2		**106**
Chicago/ Waukegan	Waukegan National	UGN			7								1	3												**11**
Chicago/West Chicago	Dupage	DPA			28			1	1		8		8	70	8			1	2	9	18					**154**
Illinois Regional																										
Alton/St Louis	St Louis Regional	ALN	2		2				1			1	3	7	1					7	1					**25**
Cahokia/St Louis	St Louis Downtown	CPS			8						3	3		14			1			33	6					**68**
Carbondale/ Murphysboro	Southern Illinois	MDH			5						10	4	1	2	1					14	5					**42**
Chicago/Lake in the Hills	Lake in the Hills	3CK												38						9						**47**
Chicago/ Romeoville	Lewis University	LOT			3			1					3	5	1				2	30	2		4			**51**
Danville	Vermilion Regional	DNV			13					5			2	2						11	2					**35**

Associated City	Airport	FAA ID	Agricultural Equipment	Antenna	Building	Building - Tower	Bridge	Catenary	Electrical System	Grain Elevator	Fence	General Utilities	NAVAID	Pole	Sign	Solar Panels	Spire	Stack	Tank	Transmission Lines	Tower	Tramway	Utility Pole	Vertical Structure	Windmill	Grand Total
DeKalb	DeKalb Taylor Municipal	DKB			2									1					1	13	4				6	**27**
Effingham	Effingham County Memorial	1H2			2										3					1	1					**7**
Galesburg	Galesburg Municipal	GBG			1								1	1						3						**6**
Jacksonville	Jacksonville Municipal	IJX																								
Kankakee	Greater Kankakee	IKK												3											1	**4**
Macomb	Macomb Municipal	MQB			1								4							3	1					**9**
Mattoon/ Charleston	Coles County Memorial	MTO			7						2		2	4	1					15	3					**34**
Monee	Bult Field	C56			1									1												**2**
Morris	Morris Municipal	C09			4		1								1				1		1					**8**
Mount Vernon	Mount Vernon	MVN			1										1					1	2					**5**
Peru	Illinois Valley Regional-Walter A Duncan Field	VYS			1						1		2	54	1						1					**60**
Sterling/ Rockfalls	Whiteside County	SQI												1						8	10					**19**
										Illinois Local																
Bolingbrook	Bolingbrook's Clow International	1C5			2										1											**3**
Canton	Ingersoll	CTK								1		2		3												**6**
Carmi	Carmi Municipal	CUL							2			1		1												**4**
Casey	Casey Municipal	1H8			8								1	7	1				1	1						**19**
Centralia	Centralia Municipal	ENL			1									1						5						**7**
Chicago	Lansing Municipal	IGQ			4						1			1	1				1		2					**10**
Chicago/ Schaumburg	Schaumburg Regional	06C			9									45							1			1		**56**
Dixon	Dixon Municipal	C73			5						1			2												**8**
Freeport	Albertus	FEP											4							4	3					**11**
Greenville	Greenville Airport	GRE								1		1														**2**
Harrisburg	Harrisburg-Raleigh	HSB			1															4						**5**
Joliet	Joliet Regional	JOT			6									18	4			1		4						**33**
Kewanee	Kewanee Municipal	EZI							1	1			2	1	1				1		3					**10**
Lacon	Marshall County	C75																								
Lawrenceville	Lawrenceville-Vincennes International	LWV	4					2				1		1												**8**
Litchfield	Litchfield Municipal	3LF			9			2			1	5		9	1			1	1	20						**49**
Mount Carmel	Mount Carmel Municipal	AJG								1		1								1	1					**4**
Olney-Noble	Olney-Noble	OLY							1			1	1	1							2		1			**7**
Pekin	Pekin Municipal	C15	3		1															13						**17**
Peoria	Mount Hawley Auxiliary	3MY			1						1			1						1	1					**5**

Associated City	Airport	FAA ID	Agricultural Equipment	Antenna	Building	Building - Tower	Bridge	Catenary	Electrical System	Grain Elevator	Fence	General Utilities	NAVAID	Pole	Sign	Solar Panels	Spire	Stack	Tank	Transmission Lines	Tower	Tramway	Utility Pole	Vertical Structure	Windmill	Grand Total
Pinckneyville	Pinckneyville-DuQuoin	PJY									2			2												**4**
Pontiac	Pontiac Municipal	PNT			4		1							3						1			22			**31**
Robinson	Crawford County	RSV											2		1				1	3						**7**
Rochelle	Rochelle Municipal Airport	RPJ			1					1			2	3						4	1					**12**
Shelbyville	Shelby County	2H0			1						3			3												**7**
Sparta	Sparta Community-Hunter Field	SAR			1			1						8	1				1	6	1					**19**
Illinois Basic																										
Beardstown	Greater Beardstown	K06																	1							**1**
Benton	Benton Municipal	H96									1	2		23	4				1							**31**
Cairo	Cairo Regional	CIR										1		1	3						2					**7**
Fairfield	Fairfield Municipal	FWC									2			9					1		1					**13**
Flora	Flora Municipal	FOA																								
Havana	Havana Regional	9I0																								
Lincoln	Logan County	AAA										1		2			1			5	1					**10**
Metropolis	Metropolis Municipal	M30											2	3												**5**
Monmouth	Monmouth Municipal	C66												1												**1**
MountSterling	Mount Sterling Municipal	I63																		2						**2**
Paris	Edgar County	PRG																								
Pittsfield	Pittsfield Penstone Municipal	PPQ																								
Rantoul	Rantoul National Aviation Center	TIP																		8						**8**
Salem	Salem-Leckrone	SLO																								
Savanna	Tri-Township	SFY	2																	2						**4**
Taylorville	Taylorville Municipal	TAZ			4				1		1			2					1	1	1					**11**
Vandalia	Vandalia Municipal	VLA							3		1			2												**6**
Illinois Unclassified																										
Greenwood/ WonderLake	Galt Field	10C																								
Harvard	Dacy	0C0																								
Paxton	Paxton	1C1																								
Poplar Grove	Poplar Grove	C77																								
Rushville	Schuy-Rush	5K4																								
Tuscola	Tuscola	K96																								
Statewide Totals			**11**	**1**	**412**	**4**	**36**	**7**	**12**	**15**	**86**	**35**	**93**	**1,344**	**111**	**4**	**6**	**13**	**37**	**736**	**254**	**1**	**35**	**41**	**8**	**3,302**

Note: Obstructions are only meant to provide context within the airport environs. Airports should verify the existence of the obstructions and conduct further evaluation prior to mitigation.

Sources: Kimley-Horn 2020, ESRI 2020, OAS 2020 (data accessed February 2020)

Table 6.5. Environmental Impacts by Airport

Associated City	Airport	FAA ID	NHPA Resources	Threatened or Endangered Species	Wetlands and Other Waters of the U.S	Floodplain	Farmland	Air Quality	Water Quality	Hazardous Materials
Illinois Commercial Service										
Belleville	Scott AFB/MidAmerica	BLV			✓	✓		✓	✓	
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	✓		✓		✓		✓	
Champaign/Urbana	University of Illinois-Willard	CMI			✓		✓			
Chicago	Chicago Midway International	ORD			✓	✓		✓	✓	
Chicago	Chicago O'Hare International	MDW	✓					✓	✓	
Chicago/Rockford	Chicago/Rockford International	RFD			✓	✓	✓		✓	
Decatur	Decatur	DEC			✓		✓		✓	
Marion	Veterans Airport of Southern Illinois	MWA			✓		✓		✓	
Moline	Quad City International	MLI			✓	✓	✓		✓	
Peoria	General Downing-Peoria International	PIA			✓	✓	✓		✓	
Quincy	Quincy Regional-Baldwin Field	UIN			✓		✓			
Springfield	Abraham Lincoln Capital	SPI	✓		✓	✓	✓		✓	
Chicago/Aurora	Aurora Municipal	ARR			✓	✓	✓	✓	✓	
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK			✓	✓		✓	✓	
Chicago/Waukegan	Waukegan National	UGN			✓	✓		✓	✓	
Chicago/West Chicago	Dupage	DPA			✓	✓	✓	✓	✓	
Illinois Regional										
Alton/St Louis	St Louis Regional	ALN			✓		✓	✓	✓	
Cahokia/St Louis	St Louis Downtown	CPS	✓		✓	✓	✓	✓	✓	
Carbondale/Murphysboro	Southern Illinois	MDH			✓	✓	✓			
Chicago/Lake In The Hills	Lake in the Hills	3CK			✓	✓	✓		✓	
Chicago/Romeoville	Lewis University	LOT			✓	✓	✓	✓	✓	
Danville	Vermilion Regional	DNV			✓	✓	✓			
DeKalb	DeKalb Taylor Municipal	DKB			✓		✓		✓	
Effingham	Effingham County Memorial	1H2			✓	✓	✓		✓	
Galesburg	Galesburg Municipal	GBG			✓		✓		✓	
Jacksonville	Jacksonville Municipal	IJX			✓		✓			
Kankakee	Greater Kankakee	IKK			✓	✓	✓		✓	
Macomb	Macomb Municipal	MQB					✓			
Mattoon/Charleston	Coles County Memorial	MTO			✓		✓		✓	
Monee	Bult Field	C56			✓		✓	✓		
Morris	Morris Municipal	C09			✓	✓	✓			
Mount Vernon	Mount Vernon	MVN			✓	✓	✓		✓	
Peru	Illinois Valley Regional	VYS		✓	✓		✓		✓	
Sterling/Rockfalls	Whiteside County	SQI			✓		✓			

Associated City	Airport	FAA ID	NHPA Resources	Threatened or Endangered Species	Wetlands and Other Waters of the U.S	Floodplain	Farmland	Air Quality	Water Quality	Hazardous Materials
Illinois Local										
Bolingbrook	Bolingbrook's Clow International	1C5						✓	✓	
Canton	Ingersoll	CTK			✓		✓		✓	
Carmi	Carmi Municipal	CUL			✓		✓			
Casey	Casey Municipal	1H8					✓		✓	
Centralia	Centralia Municipal	ENL			✓		✓		✓	
Chicago	Lansing Municipal	IGQ	✓		✓		✓	✓	✓	
Chicago/Schaumburg	Schaumburg Regional	06C			✓	✓		✓	✓	
Dixon	Dixon Municipal	C73			✓		✓		✓	
Freeport	Albertus	FEP			✓		✓			✓
Greenville	Greenville Airport	GRE			✓		✓			
Harrisburg	Harrisburg-Raleigh	HSB			✓	✓	✓			
Joliet	Joliet Regional	JOT			✓	✓		✓	✓	
Kewanee	Kewanee Municipal	EZI			✓		✓			
Lacon	Marshall County	C75			✓		✓		✓	
Lawrenceville	Lawrenceville-Vincennes International	LWV			✓	✓	✓			
Litchfield	Litchfield Municipal	3LF	✓		✓		✓		✓	
Mount Carmel	Mount Carmel Municipal	AJG			✓		✓			
Olney-Noble	Olney-Noble	OLY			✓	✓	✓			
Pekin	Pekin Municipal	C15					✓			
Peoria	Mount Hawley Auxiliary	3MY			✓		✓		✓	
Pinckneyville	Pinckneyville-DuQuoin	PJY			✓	✓	✓			
Pontiac	Pontiac Municipal	PNT					✓		✓	
Robinson	Crawford County	RSV			✓		✓			
Rochelle	Rochelle Municipal Airport	RPJ			✓	✓	✓		✓	
Shelbyville	Shelby County	2H0			✓		✓			
Sparta	Sparta Community-Hunter Field	SAR			✓		✓		✓	
Illinois Basic										
Beardstown	Greater Beardstown	K06					✓		✓	
Benton	Benton Municipal	H96			✓		✓		✓	
Cairo	Cairo Regional	CIR			✓	✓	✓		✓	
Fairfield	Fairfield Municipal	FWC			✓		✓		✓	
Flora	Flora Municipal	FOA			✓		✓		✓	
Havana	Havana Regional	9I0			✓		✓			
Lincoln	Logan County	AAA					✓		✓	
Metropolis	Metropolis Municipal	M30			✓		✓			
Monmouth	Monmouth Municipal	C66			✓		✓		✓	
Mount Sterling	Mount Sterling Municipal	I63			✓		✓			

Associated City	Airport	FAA ID	NHPA Resources	Threatened or Endangered Species	Wetlands and Other Waters of the U.S	Floodplain	Farmland	Air Quality	Water Quality	Hazardous Materials
Paris	Edgar County	PRG			✓	✓	✓			
Pittsfield	Pittsfield Penstone Municipal	PPQ			✓		✓		✓	
Rantoul	Rantoul National Aviation Center	TIP					✓		✓	
Salem	Salem-Leckrone	SLO					✓		✓	
Savanna	Tri-Township	SFY					✓			
Taylorville	Taylorville Municipal	TAZ			✓		✓		✓	
Vandalia	Vandalia Municipal	VLA			✓		✓			
Illinois Unclassified										
Greenwood/Wonder Lake	Galt Field	10C			✓	✓	✓		✓	
Harvard	Dacy	0C0			✓	✓	✓		✓	
Paxton	Paxton	1C1			✓		✓		✓	
Poplar Grove	Poplar Grove	C77					✓		✓	
Rushville	Schuy-Rush	5K4			✓		✓		✓	
Tuscola	Tuscola	K96			✓		✓			

Note: Wetlands and other water bodies typically do not penetrate Part 77 surfaces, however, they can be a source of glare to pilots and increase wildlife that cause be hazardous to aircraft and should continue to be monitored.

Sources: Kimley-Horn 2020, ESRI 2020, NPS 2014, USFWS 2020, National Wetland Inventory 1987, U.S. Department of Labor, Mine Safety, and Health Administration 2002, USFS 2020, U.S. EPA 2016

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Chapter 7. Aviation Activity Forecasts

7.1. Introduction

The purpose of forecasting aviation activity at a statewide level in Illinois is to provide IDOT with valuable insight related to aviation demand in the near- and long-term future. The IASP includes forecast analyses for enplanements, general aviation (GA) operations, commercial service operations, and based aircraft activity for the 85 system airports. A variety of methodologies are used to project future activity levels in Illinois and each forecast is evaluated closely to determine a preferred forecast methodology. Each activity forecast documented in this chapter was developed under the assumption that the Illinois aviation system will perform in an unconstrained environment through the 20-year planning horizon. It should be noted that forecasts developed through the IASP are not used to justify future funding, rather, they provide IDOT with a general estimate of what activity could look like in the future to help guide decisions. Forecasts are developed to justify future facility needs and should be evaluated at the individual airport level through the airport master plan process.

This chapter highlights various national trends that could affect future aviation demand, as well as the methodologies evaluated to forecast aviation activity in the state over the 20-year planning period. The following sections document the results of the analysis:

- Industry Trends
- Activity Forecasts
- Summary of Forecasts
- Terminal Area Forecast (TAF) Comparison
- Summary

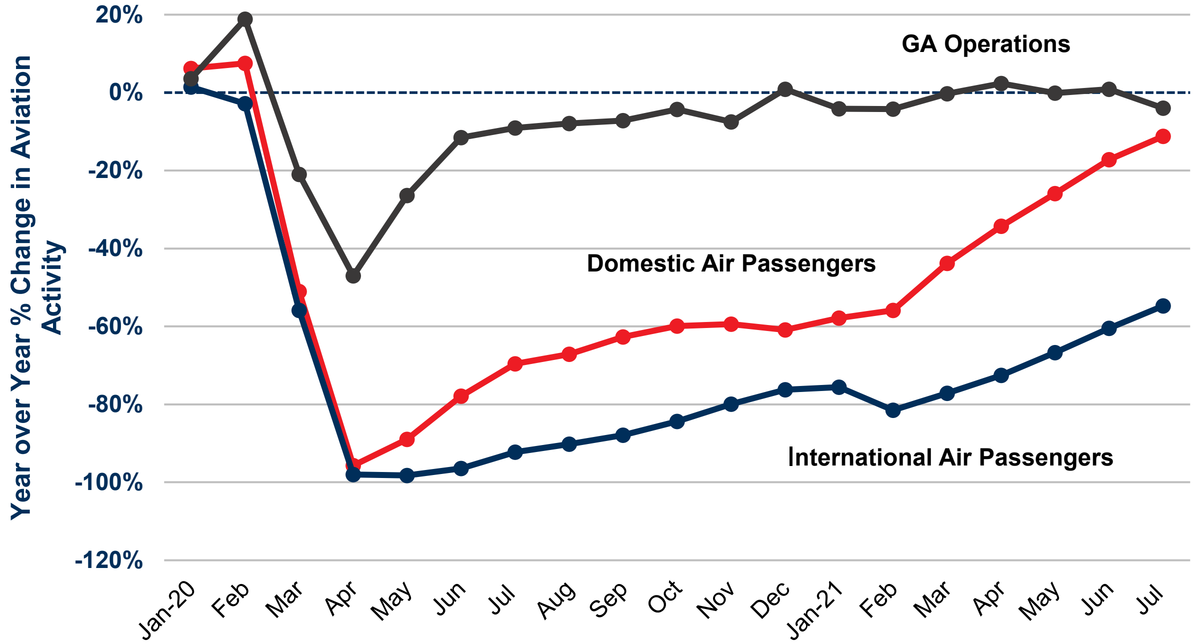
7.2. Industry Trends

Before projecting future activity in the state, it is helpful to understand the anticipated direction of the aviation industry during the forecast horizon. This section focuses on three main trends affecting the aviation industry: COVID-19, Emerging Technologies, and Socioeconomic Trends. This section highlights some of the anticipated changes that could impact the use and demand for airport facilities and infrastructure over the next 20 years.

7.2.1. COVID-19

In March 2020, commercial aviation was significantly impacted as lockdowns, stay-at-home orders, business closures and other restrictions drastically curtailed travel and commerce. **Figure 7.1** shows the impact of COVID-19 on the number of U.S. enplaned air passengers and GA operations. After initial declines, GA operations were resilient, with a near return or above pre-pandemic levels starting in December 2020. In terms of passengers, domestic passengers have experienced a stronger recovery compared to international passengers after both experiencing similar declines in April 2020. In the second half of 2020, it has been noted that the leisure segment of domestic air travel experienced a sharp recovery to 2019 levels. Despite the pandemic, many leisure travelers began to take trips to vacation destinations. This lower-yielding segment of air passengers accounts for a high proportion of current demand.

Figure 7.1. Commercial Aviation Activity Compared to 2019

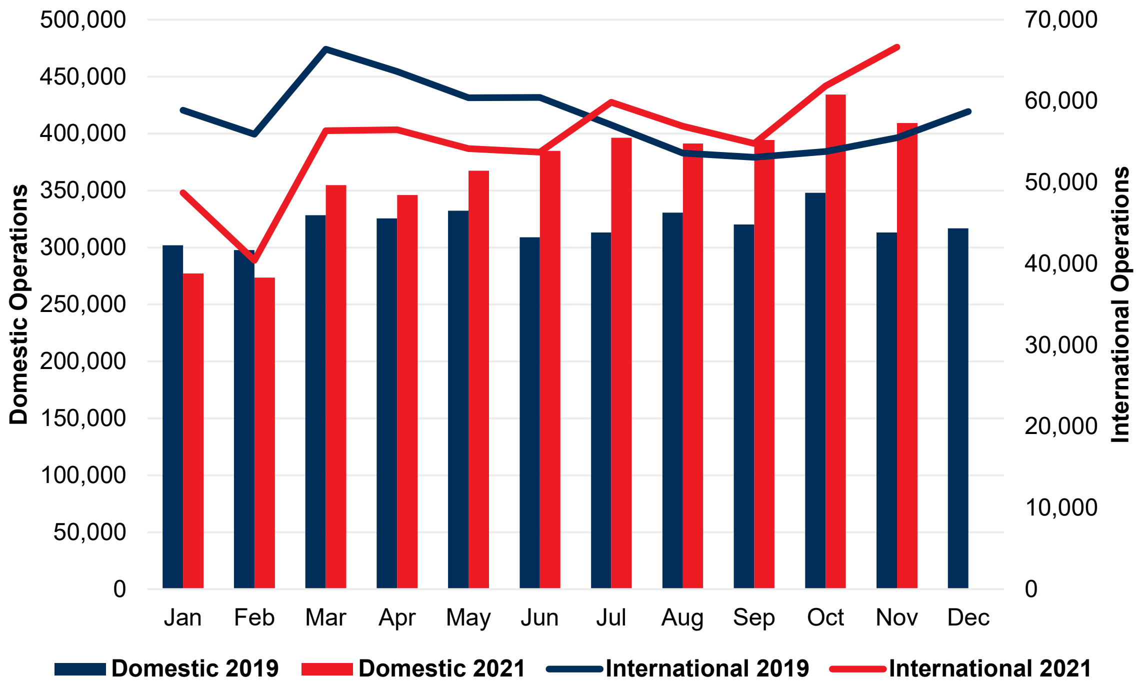


Sources: U.S. Bureau of Transportation Statistics; TransStats data on international and domestic segment passengers, all carrier types; FAA's Air Traffic Activity System (ATADS)

There may not be a full recovery for business travel on commercial airlines to 2019 levels; some companies have remained in remote operations and have cut back on trips between their own offices and facilities, relying instead on teleconferencing for regular meetings, leadership discussions, and professional training. Internal business travel makes up approximately 40 percent of corporate travel and it is not likely to resume quickly. External business travel is more likely to increase in response to rising economic activity. International travel restrictions continue to suppress demand in these markets.

While a significant portion of business travel during the pandemic was replaced by remote work and teleconferencing, especially travel on commercial airlines, the data suggests that some of this business travel migrated to private business jets as **Figure 7.2** indicates. It is not yet known whether preferences for use of private aircraft will persist as the pandemic moderates and business travel resumes.

Figure 7.2. Monthly Business Jet Operations, 2019 and 2021 Compared



Source: Enhanced Traffic Management System Counts (ETMSC)
Note: International flights include US to Foreign, Foreign to US, and all foreign operations.

7.2.2. Emerging Technologies

The airport business model is dependent on traditional sources of revenue including parking, ground transportation, and rental cars on the landside; landing fees based on the weight of aircraft, fuel taxes, leases, and fuel flowage fees on the airside. Each of these functional areas may be challenged by disruptive technologies that are likely to alter land use, operations, and revenue streams at Illinois airports. The recent experience with ridesharing companies, such as Uber and Lyft, are a prelude to some of the challenges airports will face in the next two decades in terms of how to accommodate changes to ground access, adoption of driverless vehicles by individuals, expansion of electric cars and other vehicles, including aircraft, rental car companies and ridesharing, and use of alternative fuels for aircraft. In this section these emerging technologies are highlighted as they may radically alter demand for parking garages, consolidated rental car facilities, electricity and charging stations, ground access, terminal buildings, and management of airspace as use of advanced air mobility (AAM) vehicles emerge. Furthermore, airport sponsors may need to re-evaluate and adjust rates and fee schedules to address the new ways airports are used and to fund future maintenance and capital projects.

7.2.2.1. Unmanned Aircraft Systems (UAS)

UAS technology is already widely used in a variety of applications, including search and rescue; aerial surveying; firefighting; photography; inspections of pipelines, powerlines, and wildlife; real estate tours, sporting events; recreational flying; and military reconnaissance and operations. UAS comes in a variety of sizes from 20 to 1,000 pounds. Wide adoption of UAS for commercial, government, and personal use presents challenges for airspace controls as many, if not most, small UAS devices land and takeoff from non-airport locations and are likely to share congested airspace near airports.

UAS that weight less than 55 pounds fall under the Federal Aviation Administration's (FAA's) Part 107 Small UAS regulations. Small UAS can operate without air traffic control (ATC) permissions in Class G airspace, but prior ATC authorization is required for operations in Class B, C, D, and E airspace. Small UAS typically fly below 3,500 feet. Larger UAS can fly at 18,000 feet or higher. These devices can and do operate from airports and may eventually be used to transport passengers and cargo. UAS have the potential to impact airports as they may require the use of airport facilities to operate in nearby airspace.

7.2.2.2. Autonomous Vehicles

Today, the largest non-aeronautical revenues at an airport are typically parking and rental cars. Demand for parking depends on air passengers who drive to the airport and park. A system of on-demand driverless vehicles that pick up and drop off air passengers could reduce the need for personal parking at airports. A fleet of driverless rental cars do not need to be stationed necessarily on prime airport property. The rental car process might involve use of a digital application that manages requests, contracts, payment, and dispatch. In addition to driverless rental cars, car sharing and peer-to-peer marketplace rental car options will affect rental car revenues at airports and airport curb management needs for drop-offs and pick-ups.

Driverless vehicles may replace short-haul air travel, previously provided by airlines. Some air travelers might opt to take a driverless vehicle from their home to a final destination and altogether skip ground access to the airport, a potential connecting flight, and surface transportation to the final destination.

In other ways, autonomous electric vehicles could support and replace baggage and cargo handling carts or other ground transportation services, such as airport parking shuttles and operation of passenger transport carts within terminals.

Airport sponsors own a considerable amount of valuable real estate devoted to parking, rental cars, and ground access. These facilities are typically planned within a 20-year cycle. However, due to the rapid advancement of technology, there is a need for flexibility in the design of airport facilities so that they can be more easily reconfigured, redeveloped, and/or repurposed.

7.2.2.3. Alternative Fuels, Including Electric Aircraft

The aviation industry has been focused for over a decade on development of alternative fuels (including electrification) to reduce aircraft emissions and achieve sustainability goals. The approval and use of sustainable aviation fuel (SAF) remains under development and in testing by some airlines. SAF will reduce reliance on Jet A fuel for turbine aircraft long-term, but for the immediate future, airlines are experimenting with dual systems on some aircraft.

For GA, the FAA in July 2021 approved an unleaded fuel for piston aircraft (G100UL). This new fuel is considered a 'drop-in' fuel, which means that a separate fueling system is not needed for piston aircraft. Illinois has an estimated 3,690 based aircraft (2020), many of which are powered by 100 low-lead (100LL) fuel. As supplies of G100UL become more available, fixed base operators (FBOs) and self-service fueling stations will convert to the new fuel.

As new fuel and propulsion technologies, such as sustainable aviation fuel (SAF), hydrogen, and electricity come online, airports will need to construct the infrastructure necessary to support these alternative fuels for aircraft, cars, busses, and other modes of travel that will rely on alternative fuel and charging sources.

7.2.3. Socioeconomic Trends

There are strong relationships between demand for aviation, the size of an individual air service market, and prevailing economic conditions. This section examines trends in population, employment, and Per Capita Personal Income (PCPI) in Illinois, including by district and region, that are used in preparation of the IASP forecasts.

7.2.3.1. Illinois Districts and Regions

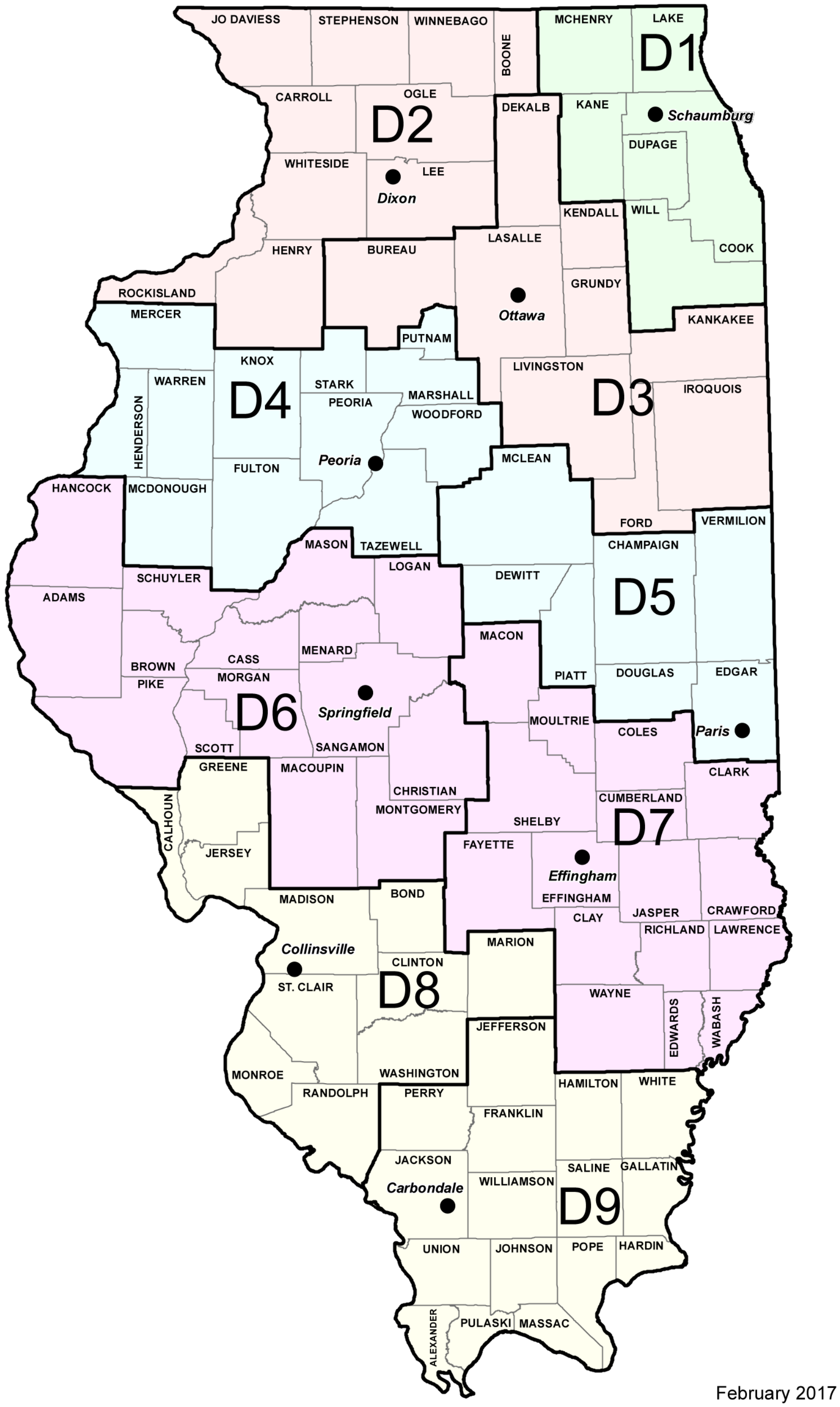
IDOT has divided the state into nine districts and five regions. Individual districts are a subset of the state's five regions. **Table 7.1** describes the regions and their associated 2019 population levels. Region 1 in the northeast corner of the state encompasses the Chicago O'Hare International (ORD) and Chicago Midway International (MDW) airports and contains 65.5 percent of total Illinois population or 8.6 million people. Region 2 is the second largest, but much smaller than the Chicago metropolitan area with 1.4 million people and two commercial airports—Chicago Rockford International (RFD) and Quad City International (MLI). Bloomington, Peoria, and Champaign/Urbana support three commercial service airports in Region 3. Region 4 encompasses the cities of Decatur, Quincy, and Springfield. It has the largest land area and the smallest population at 929,393 in 2019. Region 5 contains the cities of Belleville and Marion, each with a commercial service airport. MidAmerica St. Louis (BLV) is located in Belleville and Veterans Airport of Southern Illinois (MWA) is located in Marion. **Figure 7.3** shows the IDOT Districts and Regions and the counties contained in each.

Table 7.1. Population by IDOT Region

Region	IDOT Districts	2019 Population	% Share of Total Population	Associated Cities
1	1	8,623,356	65.5%	Chicago
2	2 and 3	1,415,654	10.8%	Chicago/Rockford, Moline
3	4 and 5	1,094,270	8.3%	Bloomington/Normal, Champaign/Urbana, Peoria
4	6 and 7	929,393	7.1%	Decatur, Quincy, Springfield
5	8 and 9	1,105,031	8.4%	Belleville, Marion
	Total	**13,167,704**	**100.0%**	

Sources: Woods and Poole Economics Inc., Illinois Department of Transportation, Office of Planning and Programming

Figure 7.3. IDOT Districts and Regions



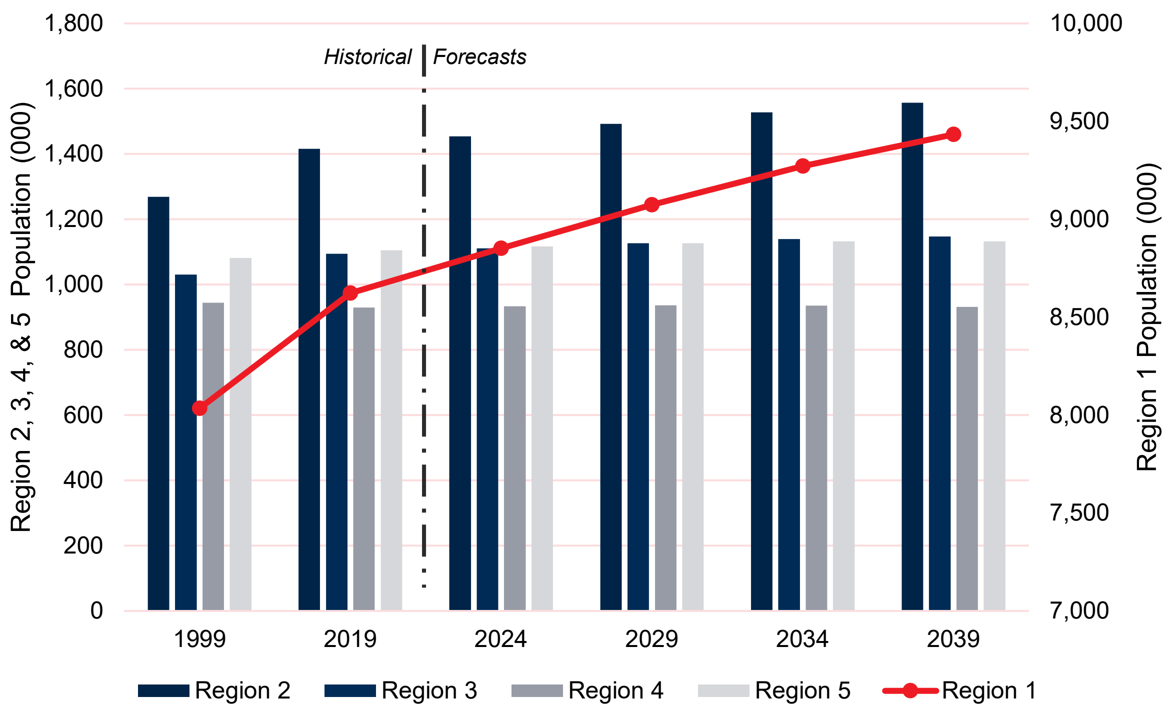
Source: IDOT

7.2.3.2. Population Trends

Population is an indicator of local market size, growth trends and market potential. In 2019, the state of Illinois had an estimated population of 13.2 million. **Figure 7.4** and **Table 7.2** present historical and projected population growth in each IDOT region. Overall, the State of Illinois has grown at an average annual rate of 0.32 percent during the 20-year period 1999 to 2019. During the same period, population in the entire U.S. grew much more rapidly at an average annual rate of 0.90 percent. Population growth in Illinois is expected to increase at a slightly higher rate over the forecast period than in the prior 20 years in Illinois.

Not all IDOT regions have or are expected to grow at the same rate. Region 2 was the fastest growing area during the last 20 years. Region 4 experienced a decline in population. Northern and northeast Illinois are projected to be the fastest growing areas (Regions 1 and 2) during the forecast period of 2019-2039. However, even in those regions, the U.S. is expected to grow in population at a rate double that of northern Illinois. At the end of the forecast period, total Illinois population is estimated at 14.2 million, up from 13.2 million in 2019.

Figure 7.4. Population Growth and Forecasts by IDOT Region (in thousands)



Source: Woods and Poole Economics Inc.

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Table 7.2. Population Growth and Forecasts by IDOT Region

Region	Population						CAGR			
	Historical Trends		Forecast Years				Historical Trends	Forecast Years		
	1999	2019	2024	2029	2034	2039	1999-2019	2019-2024	2019-2029	2019-2039
Region 1	8,034,547	8,623,356	8,851,342	9,073,676	9,272,151	9,433,045	0.35%	0.52%	0.51%	0.45%
Region 2	1,268,511	1,415,654	1,454,041	1,492,237	1527,362	1,557,246	0.55%	0.54%	0.53%	0.48%
Region 3	1,030,227	1,094,270	1,111,269	1127,064	1139,446	1,146,850	0.30%	0.31%	0.30%	0.23%
Region 4	944,327	929,393	933,485	936,249	935,910	931,286	-0.08%	0.09%	0.07%	0.01%
Region 5	1,081,408	1,105,031	1,116,658	1126,422	1132,127	1,132,274	0.11%	0.21%	0.19%	0.12%
Illinois	12,359,020	13,167,704	13,466,795	13,755,648	14,006,996	14,200,701	0.32%	0.45%	0.44%	0.38%
U.S.	279,040,168	333,598,080	349,344,326	365,567,728	381,547,625	396,688,138	0.90%	0.93%	0.92%	0.87%

Source: Woods and Poole Economics Inc.

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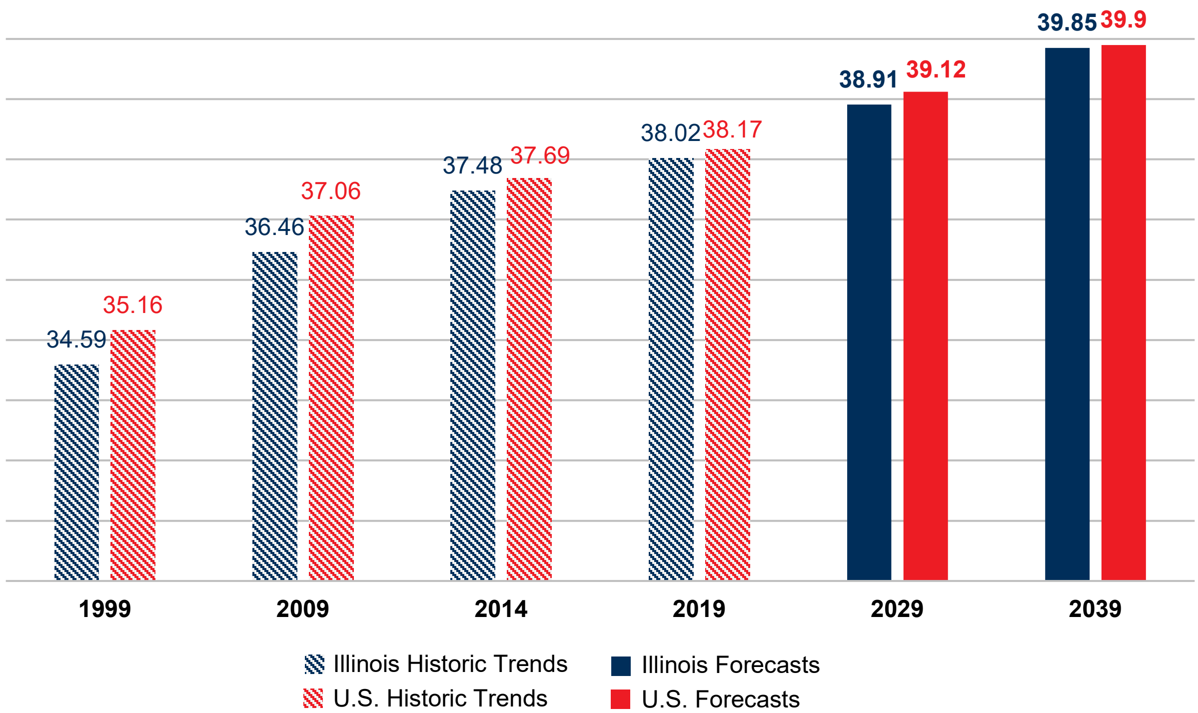
7.2.3.3. Age Trends

Figure 7.5 shows the median age of Illinois residents and the U.S. population as a whole. Twenty years ago, the Illinois median age was younger than the rest of the U.S. Over time, the median age of Illinois residents has increased and approached national averages. By the end of the forecast period, the median age of residents in Illinois is virtually identical to that of the U.S. as a whole.

Figure 7.5. Median Age of Illinois and U.S. Population



Source: Woods and Poole Economics Inc.

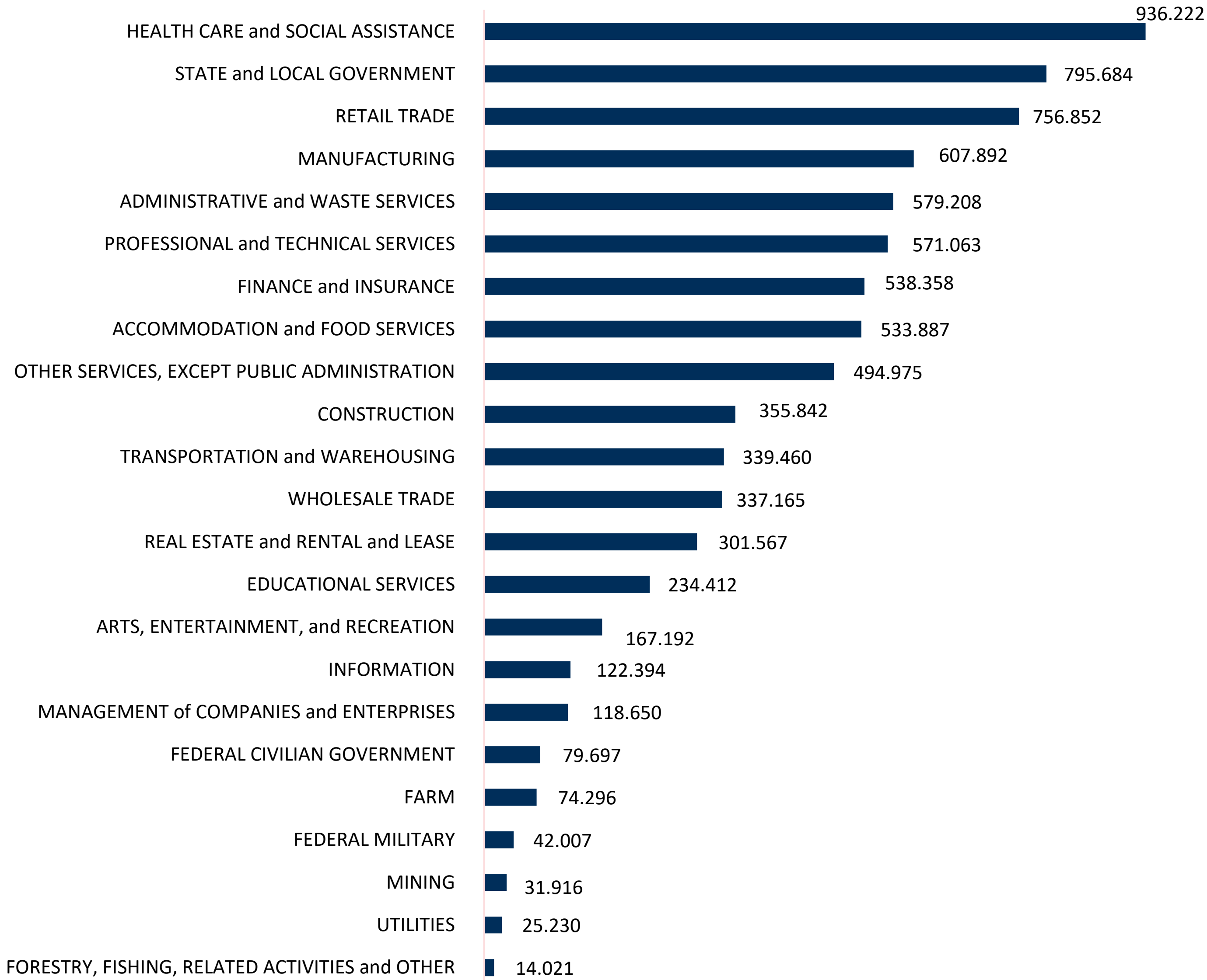
7.2.3.4. Employment Trends

Within Illinois, Region 1 is expected to increase jobs faster than other parts of the state. Overall, jobs in Illinois are forecast to grow by 1.5 million over the forecast period from 8 million jobs to 9.5 million, even though the population is forecasted to growth by one million. By 2039, Region 1 will support 6.8 million of the 9.5 million jobs in the state

Figure 7.6 presents a profile of Illinois employment by industry for 2019. Health care and social assistance, state and local government, and retail trade are the largest industries in the state. Health care represents 11.6 percent of all jobs; state and local government, 9.9 percent; and retail trade, 9.4 percent. This top-ranking distribution of jobs by industry closely parallels the U.S. and accounts for 31 percent of all jobs in the state. Manufacturing is the fourth largest industry in Illinois supporting 7.5 percent of Illinois jobs. Manufacturing employment has a larger share of local jobs in Illinois than the U.S. where manufacturing jobs represent 6.6 percent of all employment. The Illinois economy also supports a higher concentration of jobs in finance and insurance, as well as transportation and warehousing than national averages. **Table 7.3** presents a comparison of employment for all sectors of the economy in Illinois and the U.S.

The Chicago area, Region 1, supports almost 70 percent of all jobs in the state. The other regions support between seven and nine percent of the remaining 30 percent of jobs. **Figure 7.7** and **Table 7.4** show historical employment by region from 1999 to 2019 and projected employment out to 2039. Job growth in Illinois is slightly below average annual growth in jobs for the U.S. Within Illinois, Region 1 is expected to increase jobs faster than other parts of the state. Overall, jobs in Illinois are forecast to grow by 1.5 million over the forecast period from 8 million jobs to 9.5 million, even though the population is forecasted to growth by one million. By 2039, Region 1 will support 6.8 million of the 9.5 million jobs in the state

Figure 7.6. Illinois Employment, 2019 (thousands of jobs)



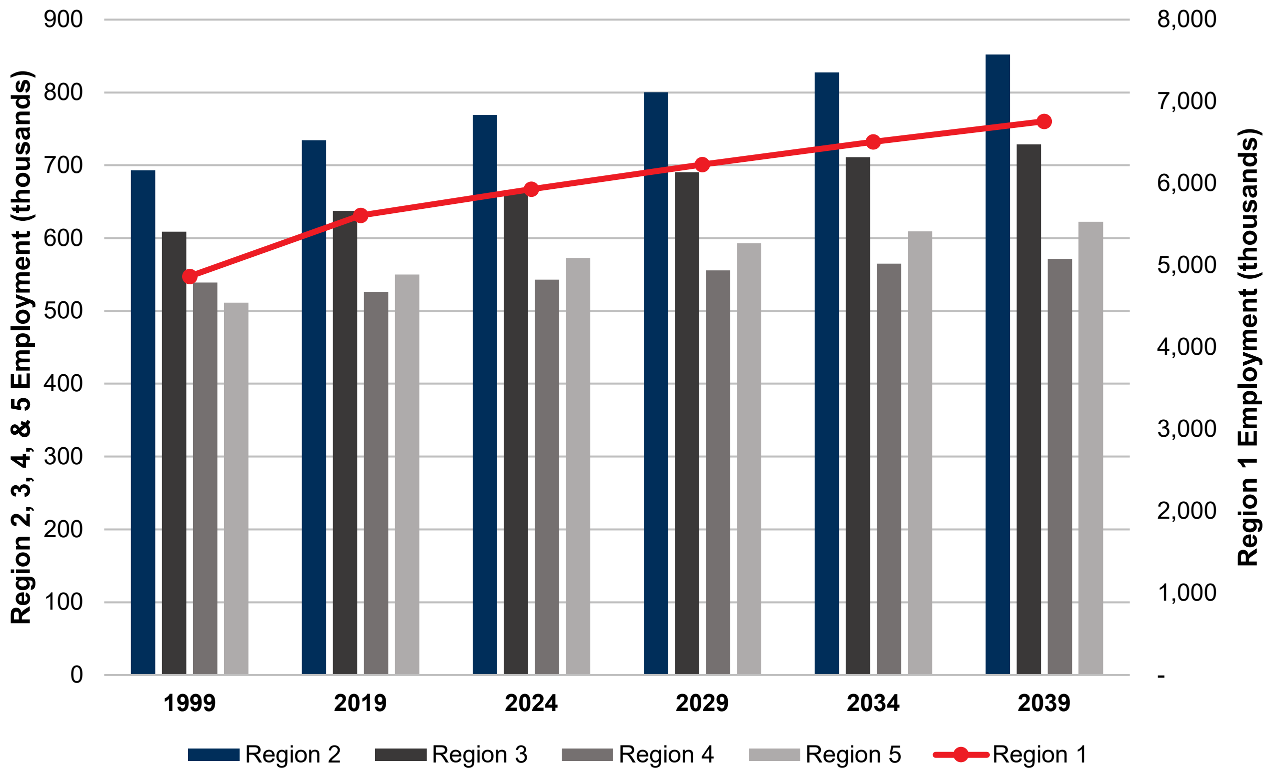
Source: Woods and Poole Economics Inc.

Table 7.3. Comparison of U.S. and Illinois Employment, 2019

Industry	2019		Percent of Total Employment	
	Illinois	U.S.	Illinois	U.S.
Health Care and Social Assistance	936,222	23,169,594	11.6%	11.6%
State and Local Government	795,684	20,742,288	9.9%	10.3%
Retail Trade	756,852	20,347,578	9.4%	10.1%
Manufacturing	607,892	13,294,266	7.5%	6.6%
Administrative and Waste Services	579,208	12,630,283	7.2%	6.3%
Professional and Technical Services	571,063	13,697,486	7.1%	6.8%
Finance and Insurance	538,358	11,056,856	6.7%	5.5%
Accommodation and Food Services	533,887	14,582,374	6.6%	7.3%
Other Services, Except Public Administration	494,975	11,730,866	6.1%	5.8%
Construction	355,842	10,758,948	4.4%	5.4%
Transportation and Warehousing	339,460	6,383,483	4.2%	3.2%
Wholesale Trade	337,165	6,876,435	4.2%	3.4%
Real Estate and Rental and Lease	301,567	8,946,062	3.7%	4.5%
Educational Services	234,412	4,949,645	2.9%	2.5%
Arts, Entertainment, and Recreation	167,192	4,502,920	2.1%	2.2%
Information	122,394	3,414,918	1.5%	1.7%
Management of Companies and Enterprises	118,650	2,568,367	1.5%	1.3%
Federal Civilian Government	79,697	2,842,820	1.0%	1.4%
Farm	74,296	2,699,281	0.9%	1.3%
Federal Military	42,007	1,987,557	0.5%	1.0%
Mining	31,916	1,780,071	0.4%	0.9%
Utilities	25,230	601,699	0.3%	0.3%
Forestry, Fishing, Related Activities and Other	14,021	991,626	0.2%	0.5%
Total	**8,057,990**	**200,555,423**	**100.0%**	**100.0%**

Source: Woods and Poole Economics Inc.

Figure 7.7. Employment Growth and Forecasts by IDOT Region (thousands of jobs)



Sources: Woods and Poole Economics inc. and Illinois Department of Transportation, Office of Planning and Programming

Table 7.4. Employment Growth and Forecasts (Number of Jobs)

Employment (thousands)							CAGR			
Region	Historical Date		Forecast Years				Historical Data	Forecast Years		
	1999	2019	2024	2029	2034	2039	1999-2019	2019-2024	2019-2029	2019-2039
Region 1	4,867,047	5,609,659	5,930,568	6,232,782	6,508,451	6,759,460	0.71%	1.12%	1.06%	0.94%
Region 2	693,034	734,495	769,047	800,211	827,635	852,003	0.29%	0.92%	0.86%	0.74%
Region 3	608,881	637,526	665,889	690,635	711,290	728,563	0.23%	0.87%	0.80%	0.67%
Region 4	539,092	526,360	542,737	555,662	564,955	571,285	-0.12%	0.61%	0.54%	0.41%
Region 5	511,196	549,950	572,940	592,817	609,136	622,522	0.37%	0.82%	0.75%	0.62%
Illinois	7,219,250	8,057,900	8,481,181	8,872,108	9,221,467	9,533,833	0.55%	1.03%	0.97%	0.84%
U.S.	161,531,413	200,555,423	214,840,158	228,826,297	242,288,089	255,383,792	1.09%	1.39%	1.33%	1.22%

Sources: Woods and Poole Economics Inc.; Illinois Department of Transportation, Office of Planning and Programming

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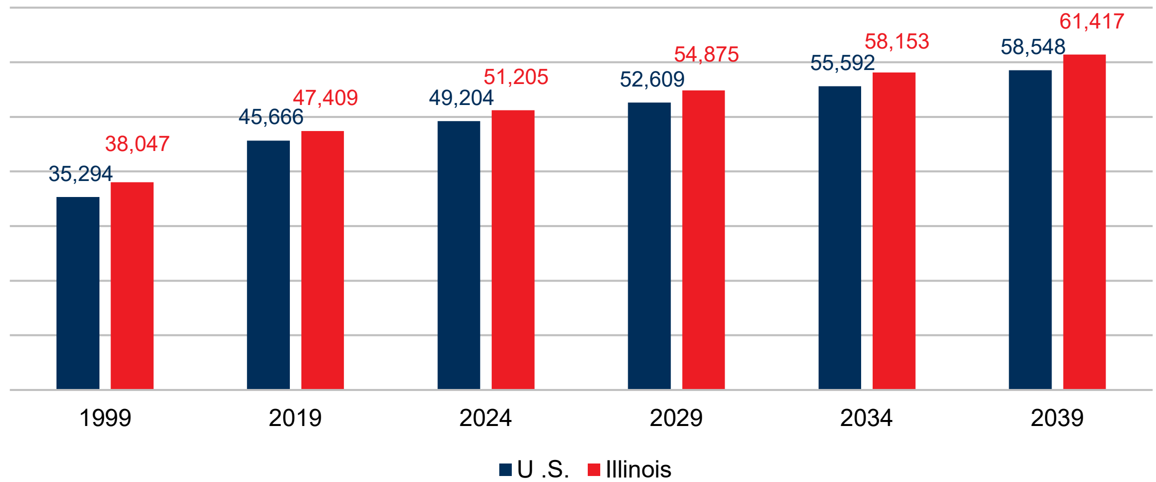
7.2.3.5. Income Trends

Using inflation-adjusted dollars it is possible to compare per capita income growth from one period to the next. **Figure 7.8** shows per capita income adjusted to 2009 dollars. Illinois has historically had a larger per capita income than the U.S.

Figure 7.8. Per Capita Income for U.S. and Illinois, 2009 dollars



Sources: Woods and Poole Economics inc. and Illinois Department of Transportation, Office of Planning and Programming

7.2.4. Industry Trends Summary

Shock events are low probability, high impact events that have occurred fairly frequently in recent history. Hurricane Katrina, 9/11, and the Great Recession each significantly disrupted the aviation industry. The aftermath of 9/11 transformed security regiments and the interior of every commercial air terminal in the U.S. Most recently, the COVID-19 pandemic hobbled every nation and economy in sudden and unexpected ways, including a devastating impact on commercial air service.

As system plans, such as the IASP are forward-looking documents, future shock events and emerging technologies will undoubtedly impact the Illinois aviation system. It is therefore important to consider their risk as the IASP is implemented and used as a guiding document.

7.3. Activity Forecasts

The development of accurate and reliable forecasts is dependent upon accurate foundational baseline data and the verification of forecast results' authenticity through the implementation of multiple forecasting methodologies. The forecasts developed for the IASP are based on base year airport existing conditions data from the data collection year (i.e., 2019, 2020). Activity forecasts for the IASP were developed from the baseline year of 2019 for 2024, 2029, and 2039. The baseline year of 2019 or 2020 was used depending on the activity indicator. The following subsections outline the baseline data and methodologies used to develop forecasts for the following airport activity indicators:

- Commercial service operations
- Enplanements
- GA operations
- Based aircraft

7.3.1. Commercial Service Operations Forecasts

Commercial service operations consist of the total number of air carrier and air taxi operations at commercial service airports. General Aviation and military operations are not included in commercial service operations. Commercial service operations are distinct from GA operations at commercial service airports and thus are impacted differently by various internal and external factors. Due to this, commercial service operations are forecasted separately from GA operations at commercial service airports. Commercial service operations data for IASP commercial service airports was collected from the FAA's TAF. Terminal Area Forecast data from 2019 was used to establish a baseline for the forecasts. The following five methodologies were used to forecast commercial service operations:

- Population Methodology
- Per Capita Personal Income Methodology
- Socioeconomic Blend Methodology
- FAA Aerospace Forecast Methodology
- Terminal Area Forecast Methodology

The results of the five commercial service operations forecast methodologies are presented in **Figure 7.9** and **Table 7.5**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and commercial service operations remain constant throughout the 20-year planning horizon.

7.3.1.1. Option #1: Population Methodology

The Population Methodology used Illinois' current and projected county population growth rates to develop a population to commercial service operations ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each county in Illinois from Woods and Poole Economics Inc. The county population growth rates were applied to base year commercial service operations to develop operation forecasts for the 20-year planning horizon.

7.3.1.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology used Illinois counties' current and projected PCPI, as reported by Woods and Poole Economics Inc., to develop a PCPI to commercial service operations ratio that reflects comparable growth factors between the two variables. The projected PCPI growth rates for each county in Illinois was applied to the airport base year commercial operations to develop operation forecasts for the 20-year planning horizon.

7.3.1.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate for each county. The Socioeconomic Blend methodology captures growth rates based on both population and PCPI trends in Illinois counties. The blended growth rate for each county is applied to airport base year commercial service operations to develop operations forecasts for the 20-year planning horizon.

7.3.1.4. Option #4: FAA Aerospace Forecast Methodology

The FAA Aerospace Forecast Methodology used systemwide scheduled passenger traffic data and growth rates from the *2019-2039 FAA Aerospace Forecast*. The FAA Aerospace Forecast growth rate was applied to the 2019 baseline commercial service operations to develop forecasts for the 20-year planning horizon. The FAA's forecasts show a slower rate of growth for airports served by regional carriers than airports served by mainline air carriers. The following growth rates were utilized to generate future commercial service operations forecasts:

- If an airport is served mostly by regional air carriers: 1.6 percent growth rate was applied
- If an airport is served mostly by mainline air carriers: 1.8 percent growth rate was applied

The purpose of these specific growth rate percentages was to model the operational growth by type of carrier operating at each commercial service airport. This method assumed that the airport's operations will grow or decline at the same rates of growth or decline predicted nationally for the type of carrier.

7.3.1.5. Option #5: Terminal Area Forecast Methodology

The TAF is the FAA's official forecast of aviation activity for airports in the National Plan of Integrated Airport Systems (NPIAS). The TAF is prepared and published annually to meet the FAA's planning and budgetary needs. The TAF uses various approaches to forecast commercial service operations depending on the number of passenger enplanements. The following details the forecast methodology used by the FAA to develop the TAF. Terminal Area Forecast data was collected for each airport for 2019 to 2039 from the TAF published in 2019.

Terminal Area Forecast Method

As reported by the FAA, "The forecasts of passenger enplanements and commercial service operations at airport with more than 100,000 enplanements in FY 2018 are based on a bottoms-up approach. The domestic enplanements are forecast by generating origin and destination (O&D) market demand forecasts using the DB1B (quarterly 10 percent sample) data to model passenger flow on a quarterly basis. The O&D forecasts are then combined with DOT T-100 segment data to generate passenger forecasts by airport pair and segment pair. The segment pair passenger forecasts are assigned to aircraft equipment in order to produce segment pair operation forecasts. The quarterly segment pair forecasts are aggregated to produce annual airport forecasts.

Separate models are used to forecast international passenger enplanements and operations and cargo operations. The international passenger enplanements are forecast on a quarterly basis using time series analysis and T-100 segment data. The segment pair passenger enplanement forecasts are used to generate pair operations forecasts. The cargo operations forecasts are also generated on a quarterly basis using time series analysis and T-100 segment data. The segment pair forecasts for international passenger enplanements and operations and cargo operations are aggregated to the market pair and airport level on an annual basis.

The short run (two-year) forecasts of passenger enplanements and operations are produced using models at the airport level. These models incorporate the use of future airline schedules.

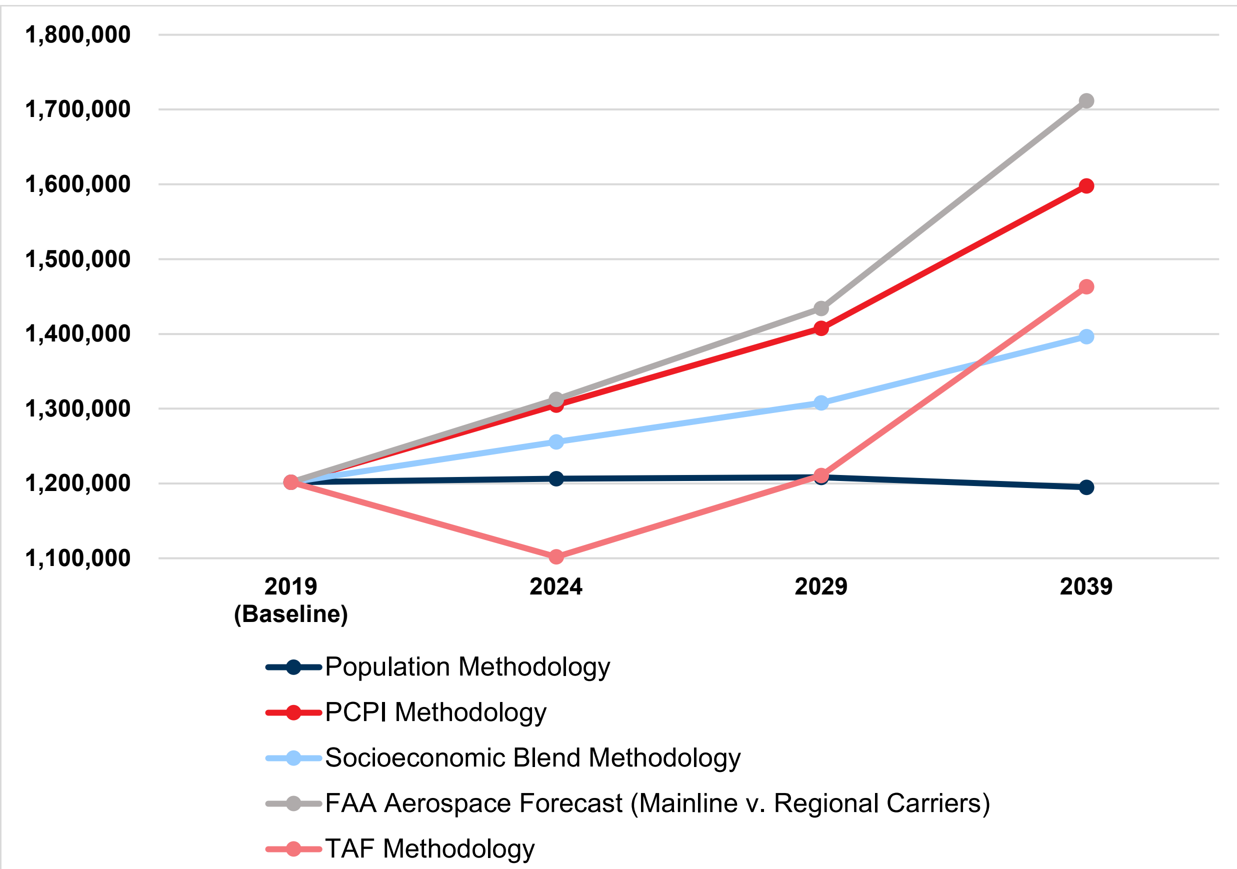
The forecasts of passenger enplanements at FAA facilities with fewer than 100,000 enplanements in FY 2018 are based on analysis of historic trends. The commercial operations forecasts are based on the enplanement forecasts, trends analysis, and enplanements per operation. In addition, the commercial forecasts for these airports may be prorated in comparison to national forecasts by trend category.[119]

[119] "FAA Forecast Process for 2019 TAF"

7.3.1.6. Preferred Commercial Service Operations Forecast Methodology

Figure 7.9 and **Table 7.5** summarize the commercial service operations forecast projections for Illinois from 2019 to 2039. Five methodologies were used to develop statewide enplanement forecasts through the 20-year planning horizon. Three of the five methodologies project growth in commercial service operations systemwide through the planning horizon. The FAA Aerospace Forecast Methodology predicts commercial service operations exceeding 1.7 million in 2039. The PCPI Methodology and Socioeconomic Blend Methodology project more modest growth in commercial service operations through the planning horizon. The Population Methodology projects a slight decrease in systemwide commercial service operations through the planning horizon. The TAF Methodology results in overall growth in systemwide commercial service operations following a projected decreased in commercial service operations prior to 2025. The **TAF Methodology** was selected as the preferred commercial service operations forecast methodology because it considers the most nuanced airport factors resulting in a forecast specific to the type of commercial service activity that each individual IASP airport supports.

Figure 7.9. Systemwide Commercial Service Operations Forecasts (2019 – 2039)



Sources: FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.5. Commercial Service Operations Forecasts (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			FAA Aerospace Forecast Methodology			TAF Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Belleville	MidAmerica St. Louis	BLV	**2,000**	2,000	2,000	2,000	2,200	2,300	2,600	2,100	2,200	2,300	2,000	2,000	2,000	**2,400**	**2,600**	**3,000**
Bloomington/ Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**6,300**	6,600	6,800	7,300	6,900	7,400	8,400	6,800	7,100	7,900	6,800	7,300	8,300	**5,400**	**5,600**	**6,300**
Champaign/ Urbana	University of Illinois-Willard	CMI	**13,600**	14,000	14,400	15,000	14,700	15,700	17,600	14,400	15,100	16,300	14,600	15,600	18,500	**8,700**	**9,200**	**10,200**
Chicago	Chicago Midway International	MDW	**200,400**	201,000	201,100	198,400	217,700	234,900	267,100	209,400	218,000	232,800	219,100	239,500	286,300	**210,200**	**227,800**	**270,600**
Chicago	Chicago O'Hare International	ORD	**909,700**	912,300	912,700	900,500	988,300	1,066,500	1,212,500	950,300	989,600	1,056,500	994,700	1,087,500	1,300,000	**812,800**	**899,600**	**1,098,400**
Chicago	Chicago/Rockford International	RFD	**19,700**	20,100	20,400	20,700	21,200	22,700	25,100	20,700	21,600	22,900	21,200	22,900	26,900	**21,600**	**23,200**	**26,800**
Decatur	Decatur	DEC	**4,100**	4,100	4,000	3,900	4,400	4,700	5,200	4,300	4,400	4,600	4,600	5,100	6,100	**4,600**	**4,700**	**5,000**
Marion	Veterans Airport of Southern Illinois	MWA	**7,700**	7,900	8,200	8,500	8,400	9,000	10,100	8,200	8,600	9,300	8,200	8,700	10,000	**8,000**	**8,500**	**9,300**
Moline	Quad City International	MLI	**15,100**	15,200	15,200	15,100	16,300	17,500	19,600	15,800	16,400	17,400	16,300	17,800	20,800	**8,300**	**8,800**	**10,300**
Peoria	General Downing-Peoria International	PIA	**14,900**	15,000	15,200	15,200	16,000	17,100	19,000	15,500	16,200	17,100	16,000	17,500	20,500	**11,600**	**12,400**	**14,400**
Quincy	Quincy Regional-Baldwin Field	UIN	**3,800**	3,800	3,800	3,800	4,100	4,500	5,000	4,000	4,200	4,400	4,300	4,800	5,800	**3,800**	**3,800**	**3,800**
Springfield	Abraham Lincoln Capital	SPI	**4,400**	4,500	4,500	4,600	4,800	5,100	5,700	4,700	4,800	5,200	4,900	5,400	6,400	**4,500**	**4,600**	**4,900**
Total Commercial Service Operations			**1,201,700**	1,206,500	1,208,300	1,195,000	1,305,000	1,407,400	1,597,900	1,255,750	1,307,850	1,396,450	1,312,700	1,434,100	1,711,600	**1,101,900**	**1,210,800**	**1,463,000**

Sources: FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

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7.3.2. Enplanements Forecasts

Enplanements are revenue passenger boardings on commercial service flights. Enplanement activity forecasting is important for understanding future demand in terms of terminal building capacity, apron size and availability, and airfield design at commercial service airports. Enplanement data for Illinois' commercial service airports was collected from the FAA's TAF. Terminal Area Forecast data from 2019 was used to establish a baseline for the enplanement forecasts. The following four methodologies were used to estimate enplanements over the 20-year planning horizon:

- Population Methodology
- PCPI Methodology
- Socioeconomic Blend Methodology
- Terminal Area Forecast Methodology

The results of the four enplanement forecast methodologies are presented in **Figure 7.10** and **Table 7.6**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and enplanements remain constant throughout the 20-year planning horizon.

7.3.2.1. Option #1: Population Methodology

The Population Methodology used Illinois' current and projected county population growth rates to develop a population to enplanement ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each Illinois county from Woods and Poole Economics Inc. The county population growth rates were applied to 2019 enplanements to develop commercial service enplanement forecasts for the 20-year planning horizon.

7.3.2.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology used Illinois' current and projected county-level PCPI as reported by Woods and Poole Inc. to develop a PCPI to enplanement ratio that reflects comparable growth factors between the two variables. The projected PCPI growth rates for each county in Illinois were applied to each airport's base year enplanements to estimate commercial service enplanement for the 20-year planning horizon.

7.3.2.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate for each county based on the trends for both indicators in Illinois counties. The averaged, blended growth rate for each county was applied to airport's base year enplanements to estimate commercial service enplanement forecasts for the 20-year planning horizon.

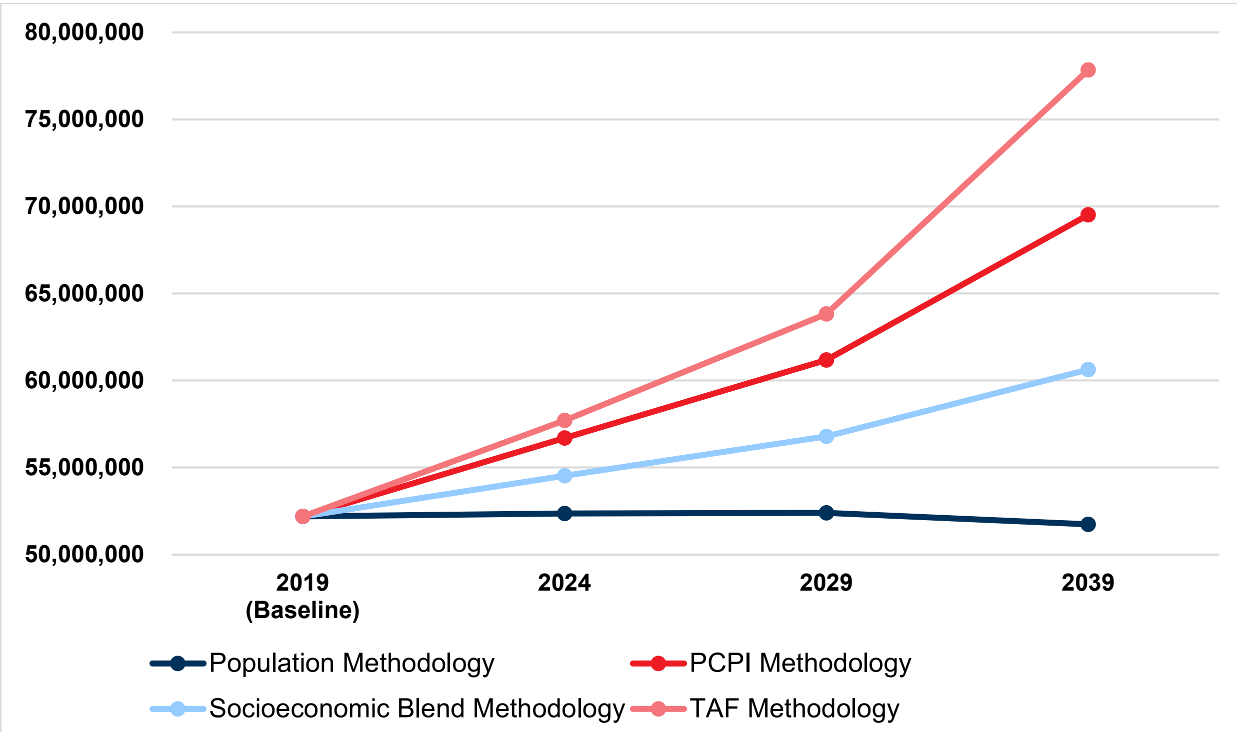
7.3.2.4. Option #4: Terminal Area Forecast Methodology

Terminal Area Forecast Methodology utilized the FAA's TAF to predict enplanement activity. Terminal Area Forecast data was collected for each IASP airport for 2019 to 2039, from the TAF published in 2019, which used the same methodology as described in Section 7.1.5.5.

7.3.2.5. Preferred Enplanement Forecast Methodology

Figure 7.10 and **Table 7.6** summarize the enplanement forecast projections for Illinois from 2019 to 2039. Three of the four methodologies project growth in enplanement activity systemwide through the planning horizon. The TAF methodology estimates that enplanements will exceed 77 million in 2039. The PCPI Methodology and Socioeconomic Blend Methodology project more modest growth in enplanements through the 20-year planning horizon at 69.5 million enplanements and 60.6 million enplanements, respectively. The Population Methodology projects a slight decrease in systemwide enplanement activity through the planning horizon, likely due to the decrease in population around Cook County. The **TAF Methodology** was ultimately selected as the preferred enplanement forecast because it considers the most nuanced airport factors resulting in a forecast specific to the type of enplanement activity that each individual IASP airport supports.

Figure 7.10. Systemwide Illinois Airport Enplanements Forecasts (2019 – 2039)



Sources: FAA TAF, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.6. Enplanements Forecasts (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology		
Associated City	**Airport Name**	**FAA ID**	**2019**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Belleville	MidAmerica St. Louis	BLV	**151,700**	152,400	152,700	151,500	164,900	177,700	199,800	158,700	165,200	175,700	**185,100**	**199,500**	**235,300**
Bloomington/ Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**207,900**	216,800	225,700	241,600	226,600	244,600	277,200	221,700	235,200	259,400	**226,900**	**237,200**	**263,200**
Champaign/ Urbana	University of Illinois-Willard	CMI	**102,700**	105,700	108,700	113,600	111,000	118,900	133,000	108,400	113,800	123,300	**128,900**	**137,400**	**160,200**
Chicago	Chicago Midway International	MDW	**10,187,100**	10,215,900	10,220,300	10,084,000	11,067,500	11,943,000	13578100	10,641,700	11,081,700	11,831,100	**10,678,300**	**11,643,500**	**14,029,300**
Chicago	Chicago O'Hare International	ORD	**40,631,300**	40,746,300	40,763,900	40,220,200	44,142,900	47,634,700	54156300	42,444,600	44,199,300	47,188,300	**45,463,900**	**50,520,400**	**61,892,600**
Chicago	Chicago/Rockford International	RFD	**112,500**	114,600	116,400	118,500	121,200	129,500	143400	117,900	123,000	131,000	**145,400**	**155,300**	**181,300**
Decatur	Decatur	DEC	**8,900**	8,800	8,700	8,500	9,600	10,300	11400	9,200	9,500	10,000	**9,300**	**9,700**	**10,700**
Marion	Veterans Airport of Southern Illinois	MWA	**10,700**	11,000	11,300	11,900	11,600	12,500	14000	11,300	11,900	13,000	**10,900**	**11,200**	**11,800**
Moline	Quad City International	MLI	**357,000**	358,400	359,400	357,400	386,000	414,200	463100	372,200	386,800	410,300	**378,700**	**400,800**	**470,500**
Peoria	General Downing-Peoria International	PIA	**338,300**	341,700	344,500	346,200	364,400	389,300	432400	353,100	366,900	389,300	**388,500**	**417,000**	**487,600**
Quincy	Quincy Regional-Baldwin Field	UIN	**10,000**	10,000	10,000	9,900	10,900	11,700	13200	10,500	10,900	11,600	**9,300**	**9,300**	**9,300**
Springfield	Abraham Lincoln Capital	SPI	**73,300**	74,400	75,400	76,500	79,200	84,900	94500	76,800	80,200	85,500	**76,500**	**79,800**	**86,900**
Total Enplanements			**52,190,700**	52,330,300	52,397,000	51,739,800	56,695,800	61,171,300	69,516,400	54,062,650	56,784,150	60,628,100	**57,701,700**	**63,821,100**	**77,838,700**

Sources: FAA TAF, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.3.3. General Aviation Operations Forecasts

General Aviation operations are all local and itinerant operations outside of commercial service and military operations. General Aviation operations occur at both GA and commercial service airports and may include operations, such as flight training, emergency response, aerial application, business and corporate flights, and recreational flying. General Aviation operations data for Illinois' airports were collected from the FAA TAF for NPIAS airports. General Aviation operations at non-NPIAS airports are self-reported. It should be noted that official GA operation counts are only available from airports with Air Traffic Control Towers (ATCTs). There are only 18 airports with ATCTs in the Illinois system. The operations at airports without ATCTs are largely self-reported estimates by airports. Terminal Area Forecast data from 2019 was used to establish a baseline for the GA operations forecasts at the state's NPIAS airports. For non-NPIAS airports, the 2019 baseline was established from GA operations reported by airports on the *IASP Inventory & Data Form*. The following five methodologies were used to develop GA operations forecast estimates:

- Population Methodology
- Per Capita Personal Income Methodology
- Socioeconomic Blend Methodology
- General Aviation Hours Flown Forecast Methodology
- Terminal Area Forecast Methodology

The results of the five GA forecast methodologies are presented in **Figure 7.11** and **Table 7.8**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and GA operations remain constant throughout the 20-year planning horizon.

7.3.3.1. Option #1: Population Methodology

The Population Methodology uses Illinois' current and projected county population growth rates to estimate a population to GA operations ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each county in Illinois from Woods and Poole Economics Inc. The county population growth rates were applied to each airport's 2019 GA operations to estimate activity for the 20-year planning horizon.

7.3.3.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology uses Illinois counties' current and projected PCPI as reported by Woods and Poole Economics Inc. to develop a PCPI to GA operations ratio that reflects comparable growth factors between the two variables. The projected PCPI growth rates for each county in Illinois were applied to the airport base year GA operations to develop operation forecasts for the 20-year planning horizon.

7.3.3.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate by county. The Socioeconomic Blend methodology captures individual county growth rates based on both population and PCPI trends. The blended growth rate for each county was applied to airport base year GA operations to develop GA operation forecasts for the 20-year planning horizon.

7.3.3.4. Option #4: General Aviation Hours Flown Forecast Methodology

The FAA releases the FAA Aerospace Forecasts on an annual basis. The report forecasts various segments of the industry for use in workload planning and evaluating the impact of various trends.

Included in the *2019-2039 FAA Aerospace Forecast* is a GA flown forecasts, which projects total GA flight hours of GA in the US. Per the *FAA Aerospace Forecast*, the number of GA hours flown is forecast to increase an average of 0.8 percent per year through 2039 from 25.9 million in 2019 to 30.3 million, as the newer aircraft fly more hours each year.

The GA hours flown methodology for Illinois assumes a correlation between Illinois GA operations and the forecasted national GA flight hours from the *2019 FAA Aerospace Forecast*. The GA Hours Forecast Methodology utilized an average annual growth rate of GA hours flown from all aircraft types. The average annual growth rate was applied to the 2019 baseline data to develop GA operations forecasts for the 20-year planning horizon. **Table 7.7** illustrates how the GA Hours Flown Methodology applied the trend generated from total nationwide GA hours flown and was used to develop the first three years of this GA operations forecast.

Table 7.7. Applying GA Hours Flown Trend to GA Operations (2019-2022)

	2019 (baseline)	2020	2021	2022
GA Hours Flown	25,853	26,039	26,169	26,297
AAGR		1.01%	1.00%	1.00%
GA Operations	1,928,000	1,941,500	1,951,300	1,961,100

Sources: IASP Inventory Form, 2020; FAA Aerospace Forecast, 2019 – 2039; Kimley-Horn, 2021

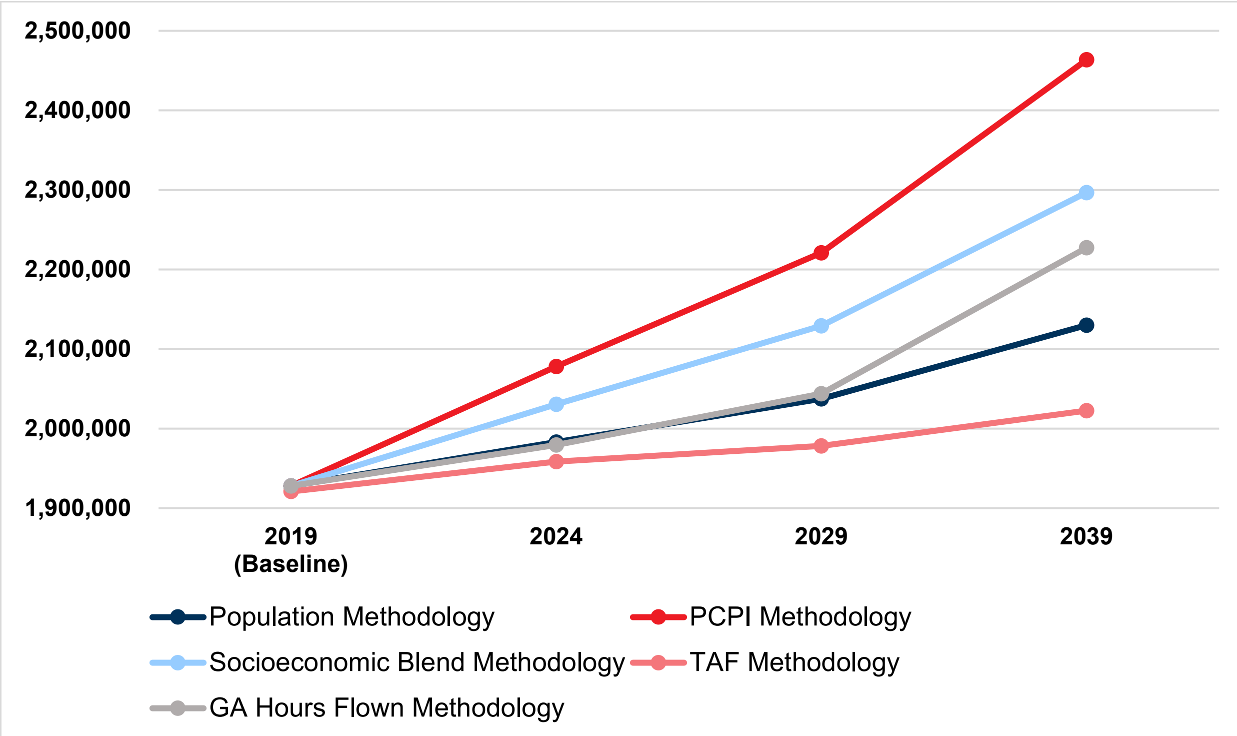
7.3.3.5. Option #5: Terminal Area Forecast Methodology

The TAF Methodology used the FAA's TAF data to predict future aviation activity. Terminal Area Forecast data for GA operations were collected for each IASP airport for 2019 to 2039 from the TAF published in 2019. It should be noted at the TAF methodology assumes no growth for non-towered airports unless an approved forecast from an airport master plan is integrated into the TAF, which does not routinely happen.

7.3.3.6. Preferred GA Operations Forecast Methodology

Figure 7.11 and **Table 7.8** summarize the GA operations forecast projections for Illinois from 2019 to 2039. All five methodologies project growth in GA operations activity systemwide through the 20-year planning horizon. The PCPI methodology predicts the most growth with GA operations exceeding 2.4 million in 2039. The Population Methodology, Socioeconomic Blend Methodology, TAF Methodology, and GA Hours Forecast Methodology all project modest growth in systemwide GA operations through the planning horizon. The **GA Hours Forecast Methodology** was selected as the preferred GA operations forecast methodology. Based on our discussions with airport managers and pilots during the inventory process, it was noted that activity witnessed in Illinois' aviation system is comparable to nationwide activity. With this understanding, and the fact that the GA hours forecast methodology represents a mainstream and conservative methodology, the GA Hours Forecast Methodology was selected as the preferred GA operations forecast methodology.

Figure 7.11. Systemwide GA Operations Forecasts (2019 – 2039)



Sources: IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

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Table 7.8. General Aviation Operations Forecast (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Flown Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Commercial Service																		
Belleville	MidAmerica St. Louis	BLV	**10,100**	10,100	10,200	10,100	11,000	11,800	13,300	10,600	11,000	11,700	10,100	10,100	10,100	**10,400**	**10,700**	**11,700**
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**15,600**	16,300	16,900	18,100	17,000	18,400	20,800	16,700	17,700	19,500	15,300	15,400	15,700	**16,000**	**16,500**	**18,000**
Champaign/Urbana	University of Illinois-Willard	CMI	**38,700**	39,800	41,000	42,800	41,800	44,800	50,100	40,800	42,900	46,500	40,000	40,200	40,700	**39,700**	**41,000**	**44,700**
Chicago	Chicago Midway International	MDW	**33,300**	33,400	33,400	33,000	36,200	39,000	44,400	34,800	36,200	38,700	32,900	32,900	32,900	**34,200**	**35,300**	**38,500**
Chicago	Chicago O'Hare International	ORD	**4,800**	4,800	4,800	4,800	5,200	5,600	6,400	5,000	5,200	5,600	4,400	4,400	4,400	**4,900**	**5,100**	**5,500**
Chicago	Chicago/Rockford International	RFD	**19,100**	19,500	19,800	20,100	20,600	22,000	24,300	20,100	20,900	22,200	19,300	19,300	19,300	**19,600**	**20,300**	**22,100**
Decatur	Decatur	DEC	**23,400**	23,200	23,000	22,200	25,300	27,000	29,900	24,300	25,000	26,100	25,900	25,800	25,800	**24,000**	**24,800**	**27,000**
Marion	Veterans Airport of Southern Illinois	MWA	**11,900**	12,300	12,600	13,200	12,900	13,900	15,500	12,600	13,300	14,400	12,700	12,800	13,000	**12,200**	**12,600**	**13,700**
Moline	Quad City International	MLI	**18,900**	19,000	19,000	18,900	20,400	21,900	24,500	19,700	20,500	21,700	19,200	19,300	19,400	**19,400**	**20,000**	**21,800**
Peoria	General Downing-Peoria International	PIA	**17,000**	17,200	17,300	17,400	18,300	19,600	21,700	17,800	18,500	19,600	17,900	18,000	18,000	**17,500**	**18,000**	**19,600**
Quincy	Quincy Regional-Baldwin Field	UIN	**15,600**	15,600	15,600	15,500	17,000	18,300	20,600	16,300	17,000	18,100	15,600	15,600	15,600	**16,000**	**16,500**	**18,000**
Springfield	Abraham Lincoln Capital	SPI	**16,400**	16,600	16,900	17,100	17,700	19,000	21,100	17,200	18,000	19,100	16,300	16,300	16,400	**16,800**	**17,400**	**18,900**
General Aviation																		
Alton/St. Louis	St. Louis Regional	ALN	**26,400**	26,700	27,000	27,200	28,400	30,200	33,100	27,600	28,600	30,200	27,400	27,800	28,600	**27,100**	**28,000**	**30,500**
Beardstown	Greater Beardstown	K06	**3,000**	3,000	3,000	2,900	3,300	3,500	4,000	3,200	3,300	3,500	3,000	3,000	3,000	**3,100**	**3,200**	**3,500**
Benton	Benton Municipal	H96	**7,600**	7,700	7,700	7,700	8,200	8,800	9,600	8,000	8,300	8,700	7,600	7,600	7,600	**7,800**	**8,100**	**8,800**
Bolingbrook	Bolingbrook's Clow International	1C5	**48,000**	53,300	59,000	71,400	51,100	54,100	59,100	52,200	56,600	65,300	48,000	48,000	48,000	**49,300**	**50,900**	**55,500**
Cahokia/St Louis	St. Louis Downtown	CPS	**87,800**	88,200	88,400	87,700	95,400	102,900	115,700	91,800	95,700	101,700	91,000	92,600	96,100	**90,100**	**93,100**	**101,400**
Cairo	Cairo Regional	CIR	**8,500**	8,300	8,200	7,700	9,300	10,100	11,200	8,800	9,200	9,500	8,500	8,500	8,500	**8,700**	**9,000**	**9,800**
Canton	Ingersoll	CTK	**19,000**	18,800	18,600	17,900	20,700	22,200	24,600	19,800	20,400	21,300	19,000	19,000	19,000	**19,500**	**20,100**	**21,900**
Carbondale/ Murphysboro	Southern Illinois	MDH	**69,100**	69,700	70,200	70,300	75,200	81,000	90,800	72,500	75,600	80,600	73,700	73,900	74,400	**70,900**	**73,300**	**79,800**
Carmi	Carmi Municipal	CUL	**13,500**	13,400	13,300	12,900	14,700	15,900	18,100	14,100	14,600	15,500	13,500	13,500	13,500	**13,900**	**14,300**	**15,600**
Casey	Casey Municipal	1H8	**7,800**	7,800	7,900	7,800	8,400	8,900	9,700	8,100	8,400	8,800	7,800	7,800	7,800	**8,000**	**8,300**	**9,000**
Centralia	Centralia Municipal	ENL	**26,000**	26,000	25,900	25,500	28,200	30,200	33,300	27,100	28,100	29,400	26,000	26,000	26,000	**26,700**	**27,600**	**30,000**
Chicago	Lansing Municipal	IGQ	**53,900**	54,100	54,100	53,400	58,600	63,200	71,800	56,400	58,700	62,600	53,900	53,900	53,900	**55,300**	**57,100**	**62,300**

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Flown Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Chicago/Aurora	Aurora Municipal	ARR	**63,200**	67,100	71,100	78,600	67,800	72,300	80,200	67,500	71,700	79,400	66,500	66,500	66,500	**64,900**	**67,000**	**73,000**
Chicago/Lake in the Hills	Lake in the Hills	3CK	**34,000**	36,500	39,000	44,100	36,200	38,100	41,500	36,400	38,600	42,800	34,000	34,000	34,000	**34,900**	**36,000**	**39,300**
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	**58,600**	58,800	58,800	58,000	63,700	68,700	78,100	61,300	63,800	68,100	59,000	59,000	59,000	**60,200**	**62,100**	**67,700**
Chicago/Romeoville	Lewis University	LOT	**101,800**	113,000	125,200	151,500	108,400	114,700	125,400	110,700	120,000	138,500	111,300	121,700	145,600	**104,500**	**107,900**	**117,600**
Chicago/Schaumburg	Schaumburg Regional	06C	**44,600**	46,300	48,000	50,900	48,200	51,800	58,800	47,300	49,900	54,900	44,600	44,600	44,600	**45,800**	**47,300**	**51,500**
Chicago/Waukegan	Waukegan National	UGN	**40,300**	42,100	43,800	46,900	43,200	46,000	51,300	42,700	44,900	49,100	41,300	41,800	42,800	**41,400**	**42,700**	**46,600**
Chicago/West Chicago	DuPage	DPA	**121,700**	126,400	131,000	138,800	131,600	141,400	160,500	129,000	136,200	149,700	127,000	127,800	129,400	**124,900**	**129,000**	**140,600**
Danville	Vermilion Regional	DNV	**17,000**	17,100	17,100	17,000	18,100	19,000	20,200	17,600	18,100	18,600	17,000	17,000	17,000	**17,500**	**18,000**	**19,600**
DeKalb	DeKalb Taylor Municipal	DKB	**25,900**	26,800	27,700	29,100	27,900	29,700	32,900	27,400	28,700	31,000	25,900	25,900	25,900	**26,600**	**27,500**	**29,900**
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	**40,000**	40,100	40,100	39,500	43,100	46,100	50,800	41,600	43,100	45,200	40,000	40,000	40,000	**41,100**	**42,400**	**46,200**
Effingham	Effingham County Memorial	1H2	**20,000**	20,200	20,400	20,600	21,400	22,600	24,500	20,800	21,500	22,600	20,000	20,000	20,000	**20,500**	**21,200**	**23,100**
Fairfield	Fairfield Municipal	FWC	**7,500**	7,500	7,600	7,600	8,000	8,400	9,000	7,800	8,000	8,300	7,500	7,500	7,500	**7,700**	**8,000**	**8,700**
Flora	Flora Municipal	FOA	**9,500**	9,500	9,500	9,400	10,300	11,000	12,000	9,900	10,300	10,700	9,500	9,500	9,500	**9,800**	**10,100**	**11,000**
Freeport	Albertus	FEP	**20,400**	20,400	20,300	19,900	22,100	23,700	26,200	21,300	22,000	23,100	22,400	24,700	29,800	**20,900**	**21,600**	**23,600**
Galesburg	Galesburg Municipal	GBG	**11,100**	11,000	10,800	10,400	12,100	13,000	14,600	11,600	11,900	12,500	11,100	11,100	11,100	**11,400**	**11,800**	**12,800**
Greenville	Greenville	GRE	**22,000**	22,200	22,400	22,500	24,000	26,000	29,400	23,100	24,200	26,000	22,000	22,000	22,000	**22,600**	**23,300**	**25,400**
Greenwood/Wonder Lake	Galt Field	10C	**40,000**	42,900	45,900	51,900	42,500	44,900	48,800	42,700	45,400	50,400	40,000	40,000	40,000	**41,100**	**42,400**	**46,200**
Harrisburg	Harrisburg-Raleigh	HSB	**16,200**	16,300	16,300	16,100	17,700	19,200	21,500	17,000	17,800	18,800	16,200	16,200	16,200	**16,600**	**17,200**	**18,700**
Harvard	Dacy	0C0	**20,000**	21,500	23,000	25,900	21,300	22,400	24,400	21,400	22,700	25,200	20,000	20,000	20,000	**20,500**	**21,200**	**23,100**
Havana	Havana Regional	9I0	**1,400**	1,400	1,400	1,300	1,500	1,600	1,800	1,500	1,500	1,600	1,400	1,400	1,400	**1,400**	**1,500**	**1,600**
Jacksonville	Jacksonville Municipal	IJX	**11,000**	11,000	11,000	10,900	11,900	12,800	14,200	11,500	11,900	12,600	11,000	11,000	11,000	**11,300**	**11,700**	**12,700**
Joliet	Joliet Regional	JOT	**22,300**	24,800	27,400	33,200	23,800	25,100	27,500	24,300	26,300	30,400	22,300	22,300	22,300	**22,900**	**23,600**	**25,800**
Kankakee	Greater Kankakee	IKK	**46,000**	46,900	47,700	48,700	49,700	53,300	59,000	48,300	50,500	53,900	46,000	46,000	46,000	**47,200**	**48,800**	**53,100**
Kewanee	Kewanee Municipal	EZI	**12,000**	12,100	12,200	12,200	12,800	13,600	14,700	12,500	12,900	13,500	12,000	12,000	12,000	**12,300**	**12,700**	**13,900**
Lacon	Marshall County	C75	**17,600**	17,500	17,400	16,900	19,000	20,300	22,300	18,300	18,900	19,600	17,600	17,600	17,600	**18,100**	**18,700**	**20,300**
Lawrenceville	Lawrenceville-Vincennes International	LWV	**30,700**	31,000	31,200	31,200	33,200	35,600	39,300	32,100	33,400	35,300	30,700	30,700	30,700	**31,500**	**32,500**	**35,500**
Lincoln	Logan County	AAA	**5,600**	5,600	5,500	5,300	6,000	6,500	7,100	5,800	6,000	6,200	5,600	5,600	5,600	**5,700**	**5,900**	**6,500**
Litchfield	Litchfield Municipal	3LF	**13,800**	13,900	13,900	13,800	14,900	16,000	17,700	14,400	15,000	15,800	13,800	13,800	13,800	**14,200**	**14,600**	**15,900**
Macomb	Macomb Municipal	MQB	**6,500**	6,500	6,400	6,200	7,000	7,500	8,200	6,800	7,000	7,200	6,500	6,500	6,500	**6,700**	**6,900**	**7,500**
Mattoon/Charleston	Coles County Memorial	MTO	**30,000**	30,400	30,700	31,000	32,100	34,100	37,100	31,300	32,400	34,100	30,000	30,000	30,000	**30,800**	**31,800**	**34,700**
Metropolis	Metropolis Municipal	M30	**12,000**	12,100	12,200	12,300	13,100	14,100	15,700	12,600	13,200	14,000	12,000	12,000	12,000	**12,300**	**12,700**	**13,900**

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Flown Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Monee	Bult Field	C56	**13,200**	14,700	16,200	19,600	14,100	14,900	16,300	14,400	15,600	18,000	13,200	13,200	13,200	**13,600**	**14,000**	**15,200**
Monmouth	Monmouth Municipal	C66	**4,800**	4,800	4,700	4,500	5,200	5,600	6,200	5,000	5,200	5,400	4,800	4,800	4,800	**4,900**	**5,100**	**5,500**
Morris	Morris Municipal-James R. Washburn Field	C09	**41,000**	43,600	46,300	51,400	44,000	46,800	51,900	43,800	46,600	51,700	41,000	41,000	41,000	**42,100**	**43,500**	**47,400**
Mount Carmel	Mount Carmel Municipal	AJG	**10,000**	10,100	10,200	10,200	10,800	11,600	12,800	10,500	10,900	11,500	10,000	10,000	10,000	**10,300**	**10,600**	**11,600**
Mount Sterling	Mount Sterling Municipal	I63	**3,000**	3,000	3,100	3,100	3,300	3,600	4,000	3,200	3,400	3,600	3,000	3,000	3,000	**3,100**	**3,200**	**3,500**
Mount Vernon	Mount Vernon Outland	MVN	**17,100**	17,200	17,300	17,200	18,700	20,200	22,900	18,000	18,800	20,100	17,100	17,100	17,100	**17,600**	**18,100**	**19,800**
Olney-Noble	Olney-Noble	OLY	**5,300**	5,300	5,300	5,300	5,700	6,000	6,500	5,500	5,700	5,900	5,300	5,300	5,300	**5,400**	**5,600**	**6,100**
Paris	Edgar County	PRG	**6,900**	6,800	6,800	6,500	7,500	8,100	9,000	7,200	7,500	7,800	6,900	6,900	6,900	**7,100**	**7,300**	**8,000**
Paxton	Paxton	1C1	**6,000**	6,000	5,900	5,800	6,400	6,800	7,400	6,200	6,400	6,600	Not in TAF	Not in TAF	Not in TAF	**6,200**	**6,400**	**6,900**
Pekin	Pekin Municipal	C15	**7,000**	7,100	7,200	7,300	7,500	8,000	8,700	7,300	7,600	8,000	7,000	7,000	7,000	**7,200**	**7,400**	**8,100**
Peoria	Mount Hawley Auxiliary	3MY	**21,200**	21,400	21,600	21,700	22,800	24,400	27,100	22,100	23,000	24,400	23,700	26,600	33,400	**21,800**	**22,500**	**24,500**
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	**20,600**	20,700	20,800	20,600	22,200	23,800	26,300	21,500	22,300	23,500	20,600	20,600	20,600	**21,100**	**21,800**	**23,800**
Pinckneyville	Pinckneyville-Du Quoin	PJY	**8,000**	8,000	8,000	7,800	8,600	9,200	10,200	8,300	8,600	9,000	8,000	8,000	8,000	**8,200**	**8,500**	**9,200**
Pittsfield	Pittsfield Penstone Municipal	PPQ	**6,700**	6,600	6,500	6,200	7,300	7,800	8,600	7,000	7,200	7,400	6,700	6,700	6,700	**6,900**	**7,100**	**7,700**
Pontiac	Pontiac Municipal	PNT	**9,600**	9,600	9,500	9,300	10,400	11,100	12,400	10,000	10,300	10,900	9,600	9,600	9,600	**9,900**	**10,200**	**11,100**
Poplar Grove	Poplar Grove	C77	**66,000**	69,800	73,700	80,800	69,900	73,400	78,600	69,900	73,600	79,700	66,000	66,000	66,000	**67,800**	**70,000**	**76,200**
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	**20,000**	20,600	21,200	22,100	21,600	23,200	25,900	21,100	22,200	24,000	20,000	20,000	20,000	**20,500**	**21,200**	**23,100**
Robinson	Crawford Co	RSV	**10,700**	10,800	10,800	10,800	11,500	12,300	13,500	11,200	11,600	12,200	10,700	10,700	10,700	**11,000**	**11,300**	**12,400**
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	**12,000**	12,100	12,200	12,300	12,900	13,700	15,100	12,500	13,000	13,700	12,000	12,000	12,000	**12,300**	**12,700**	**13,900**
Rushville	Schuy-Rush	5K4	**1,000**	1,000	1,000	1,000	1,100	1,200	1,300	1,100	1,100	1,200	Not in TAF	Not in TAF	Not in TAF	**1,000**	**1,100**	**1,200**
Salem	Salem-Leckrone	SLO	**18,000**	18,000	18,000	17,600	19,500	20,900	23,000	18,800	19,500	20,300	18,000	18,000	18,000	**18,500**	**19,100**	**20,800**
Savanna	Tri-Township	SFY	**4,000**	3,900	3,900	3,700	4,300	4,600	5,100	4,100	4,300	4,400	4,000	4,000	4,000	**4,100**	**4,200**	**4,600**
Shelbyville	Shelby County	2H0	**15,400**	15,500	15,500	15,500	16,400	17,300	18,700	16,000	16,400	17,100	15,400	15,400	15,400	**15,800**	**16,300**	**17,800**
Sparta	Sparta Community-Hunter Field	SAR	**25,500**	25,500	25,500	25,100	27,600	29,500	32,400	26,600	27,500	28,800	25,500	25,500	25,500	**26,200**	**27,000**	**29,500**
Sterling/Rockfalls	Whiteside County-Jos H Bittorf Field	SQI	**32,000**	32,200	32,300	32,200	34,500	36,900	40,700	33,400	34,600	36,500	32,000	32,000	32,000	**32,900**	**33,900**	**37,000**
Taylorville	Taylorville Municipal	TAZ	**8,900**	8,900	8,900	8,800	9,600	10,300	11,500	9,300	9,600	10,200	8,900	8,900	8,900	**9,100**	**9,400**	**10,300**
Tuscola	Tuscola	K96	**6,000**	6,100	6,100	6,100	6,400	6,700	7,200	6,300	6,400	6,700	6,000	6,000	6,000	**6,200**	**6,400**	**6,900**
Vandalia	Vandalia Municipal	VLA	**10,000**	10,100	10,200	10,200	10,600	11,200	11,900	10,400	10,700	11,100	10,000	10,000	10,000	**10,300**	**10,600**	**11,600**
	Total GA Operations		**1,928,000**	1,983,100	2,037,500	2,130,000	2,077,900	2,220,900	2,463,500	2,030,500	2,129,200	2,296,750	1,958,600	1,978,200	2,022,600	**1,979,500**	**2,043,800**	**2,227,300**

Sources: IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

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7.3.4. Based Aircraft Forecasts

Based aircraft are operational and airworthy aircraft based on an airport for most of the year. Baseline based aircraft counts for nonprimary NPIAS airports were sourced from the FAA's National Based Aircraft Inventory Program (basedaircraft.com). These data were selected over airport-reported or other online sources of based aircraft as they are counts used by the FAA to determine NPIAS eligibility, allocate appropriate federal funding, and determine systemwide improvement needs. For non-NPIAS and primary airports, which are not included in the FAA's National Based Aircraft Inventory Program, baseline data was collected for based aircraft reported by airports on the IASP Inventory & Data Form. Note that due to the delay in preparing the aviation forecasts due to the COVID-19 pandemic, based aircraft reports are from 2020 instead of 2019. As a result, based aircraft forecasts are 19-year forecasts (2020-2039) instead of 20-year forecasts (2019-2039) like those prepared for all other indicators. The following five methodologies were used to estimate future based aircraft activity:

- Population Methodology
- Per Capita Personal Income Methodology
- Socioeconomic Blend Methodology
- Terminal Area Forecast Methodology
- GA Hours Forecast Methodology

The results of the five based aircraft forecast methodologies are presented in **Figure 7.12** and **Table 7-12**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and based aircraft remain constant throughout the 20-year planning horizon.

7.3.4.1. Option #1: Population Methodology

The Population Methodology uses Illinois' current and projected population growth rates to develop a population to based aircraft ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each county in Illinois from Woods and Poole Economics Inc. The county population growth rates were applied to base year-based aircraft activity to develop based aircraft forecasts for the 20-year planning horizon.

7.3.4.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology uses Illinois's current and projected PCPI, as reported by Woods and Poole Economics Inc., to develop a PCPI to based aircraft ratio that reflects comparable growth factors between the two variables. The project PCPI growth rates for each county in Illinois was applied to the airport base year-based aircraft activity to develop forecasts for the 20-year planning horizon.

7.3.4.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate for each county. The Socioeconomic Blend methodology captures growth rates based on both population and PCPI trends in Illinois counties. The blended growth rate for each county was applied to airport base year-based aircraft activity to develop based aircraft forecasts for the 20-year planning horizon.

7.3.4.4. Option #4: Terminal Area Forecast Methodology

The TAF Methodology used FAA TAF data to predict future aviation activity. TAF data was collected for each airport from 2019 to 2039. It should be noted that there can be significant variances in based aircraft between sources. This can be noticed when applying TAF forecasts to a basedaircraft.com-base year. In some cases, based aircraft counts in 2020 from basedaircraft.com are lower than TAF counts in 2019; so when applying the TAF methodology, a large spike can be noticed between the base year (2019) and the first forecast year (2024).

7.3.4.5. Option #5: GA Hours Forecast Methodology

The FAA releases the FAA Aerospace Forecasts on an annual basis. The report forecasts various segments of the industry. Included in the *2019-2039 FAA Aerospace Forecast* is a GA-hours forecasts which projects total flight hours of GA pilots in the US. The GA hours methodology for Illinois assumes a correlation between Illinois based aircraft and the forecasted national GA flight hours. The GA Hours Forecast Methodology utilized an average annual growth rate of GA hours flown from all aircraft types. The average annual growth rate was applied to the 2020 baseline data to develop based aircraft forecasts for the 20-year planning horizon. **Table 7-9** illustrates how the GA Hours Flown Methodology applied the trend generated from total nationwide GA hours flown and was used to develop the first three years of this based aircraft forecast.

Table 7.9. Applying GA Hours Flown Trend to Based Aircraft (2019-2022)

	2020 (baseline)	2021	2022	2023
GA Hours Flown	25,853	26,039	26,169	26,297
AAGR		1.01%	1.00%	1.00%
Based Aircraft	3,690	3,699	3,720	3,740

Sources: IASP Inventory Form, 2020; FAA Aerospace Forecast, 2019 – 2039; Kimley-Horn, 2021

7.3.4.6. Preferred Based Aircraft Forecast Methodology

Figure 7.12 and **Table 7.12** summarize the based aircraft forecast projections for Illinois airports from 2020 to 2039. All five methodologies project growth in based aircraft systemwide through the planning horizon. The TAF methodology predicts the most growth with based aircraft exceeding 4,900 in 2039. The Population Methodology, Socioeconomic Blend Methodology, PCPI Methodology, and GA Hours Forecast Methodology all project more modest growth in systemwide based aircraft through the planning horizon. The **Socioeconomic Blend Methodology** was selected as the preferred based aircraft forecast methodology. Socioeconomic conditions are often used as an indicator of a population group's propensity to travel or own an aircraft. For purposes of the IASP, socioeconomic conditions were evaluated and correlated to airport activity at the Illinois county level. Statewide, the population methodology resulted in modest growth (0.48 percent CAGR), but the PCPI methodology resulted in significant growth (1.23 percent). At the individual airport level, it is likely that one socioeconomic variable (e.g., population, PCPI, etc.) could be chosen and justified to correlate aviation activity. At the systemwide level, it is challenging to pick one socioeconomic variable that works for all airports in the state. Therefore, the socioeconomic blend methodology was chosen which applied the average growth rate (0.87 percent) of the population and PCPI variables. This methodology provides a conservative, yet realistic forecast estimate of based aircraft in Illinois' airport system.

Table 7.10 and **Table 7.11** provide additional context to how activity indicators have historically trended compared to population and PCPI. It should be noted that all forecast methodologies are applying future growth trends and not a historical trend line to determine the forecasted aviation activity in Illinois.

Table 7.10. Historical Operations vs Socioeconomic Trend Comparison

Metrics	CAGR		
	1999-2009	2009-2019	1999-2019
General Aviation Operations (TAF)	-3.05%	-0.62%	-1.85%
Population	0.35%	0.29%	0.32%
PCPI	1.28%	1.40%	1.34%

Sources: FAA TAF, 1999 – 2019; Woods & Poole, 2021; Kimley-Horn, 2022

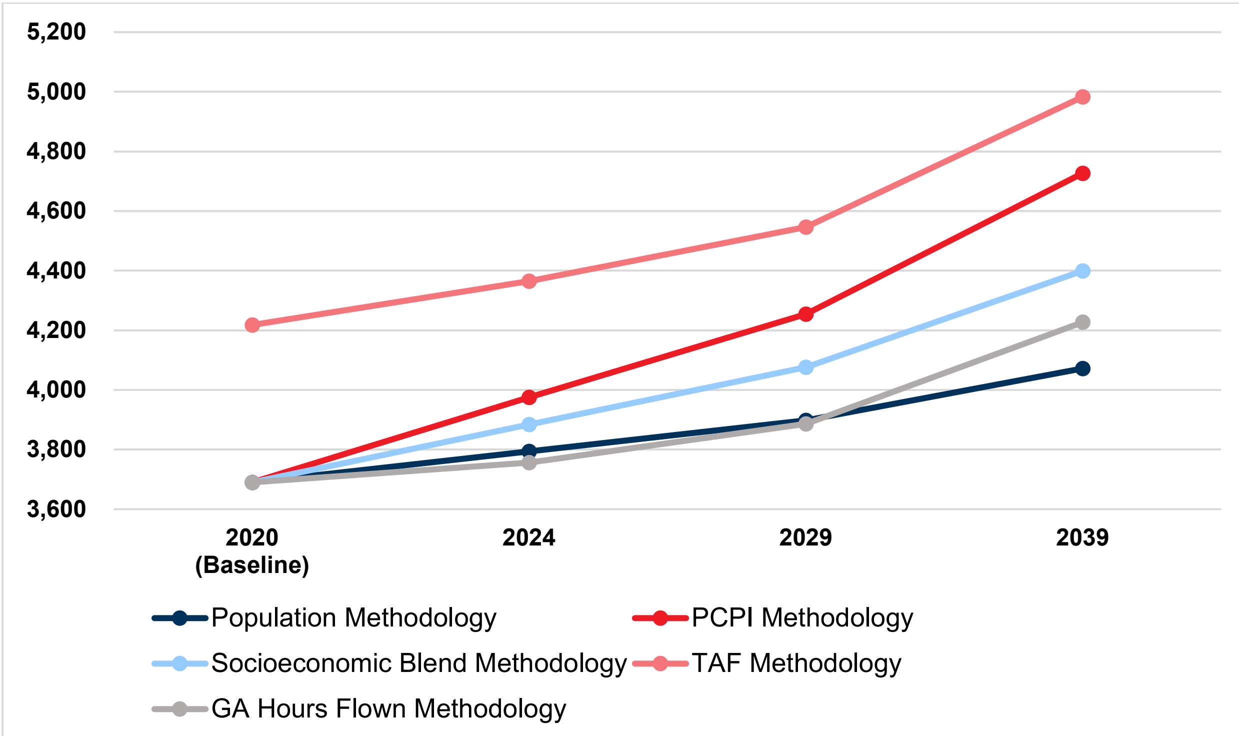
Table 7.11. Historical Operations vs Socioeconomic Trend Comparison[120]

Metrics	CAGR		
	1999-2009	2009-2019	1999-2019
Enplanements (TAF)	-0.24%	2.59%	1.16%
Population	-0.13%	0.16%	0.01%
PCPI	1.33%	1.14%	1.23%

Sources: FAA TAF, 1999 – 2019; Woods & Poole, 2021; Kimley-Horn, 2022

[120] This comparison only evaluates Illinois' commercial service airports when determining the historical CAGR for enplanements recorded in the TAF, population, and PCPI.

Figure 7.12. Systemwide Based Aircraft Forecasts (2020 – 2039)



Sources: basedaircraft.com, 2020; IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.12. Based Aircraft Forecasts (2020 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			TAF Methodology			GA Hours Forecast Methodology			Socioeconomic Blend Methodology		
Associated City	Airport Name	FAA ID	2020	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Commercial Service																		
Belleville	MidAmerica St. Louis	BLV	**1**	1	1	1	1	1	1	23	23	23	1	1	1	**1**	**1**	**1**
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**82**	86	89	95	89	96	109	88	89	92	84	86	94	**88**	**93**	**102**
Champaign/Urbana	University of Illinois-Willard	CMI	**75**	77	79	83	81	87	97	93	98	108	76	79	86	**79**	**83**	**90**
Chicago	Chicago Midway International	MDW	**40**	40	40	40	43	47	53	40	40	40	41	42	46	**42**	**44**	**47**
Chicago	Chicago O'Hare International	ORD	**0**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
Chicago	Chicago/Rockford International	RFD	**114**	116	118	120	123	131	145	121	131	151	116	120	131	**120**	**125**	**133**
Decatur	Decatur	DEC	**50**	50	49	48	54	58	64	63	68	78	51	53	57	**52**	**54**	**56**
Marion	Veterans Airport of Southern Illinois	MWA	**46**	47	49	51	50	54	60	46	46	46	47	48	53	**49**	**52**	**56**
Moline	Quad City International	MLI	**85**	85	86	85	92	99	110	94	99	109	87	89	97	**89**	**93**	**98**
Peoria	General Downing-Peoria International	PIA	**55**	56	56	56	59	63	70	69	69	69	56	58	63	**58**	**60**	**63**
Quincy	Quincy Regional-Baldwin Field	UIN	**54**	54	54	54	59	63	71	41	41	41	55	57	62	**57**	**59**	**63**
Springfield	Abraham Lincoln Capital	SPI	**169**	171	174	176	183	196	218	185	200	232	172	178	194	**177**	**185**	**197**
General Aviation																		
Alton/St Louis	St. Louis Regional	ALN	**37**	37	38	38	40	42	46	52	57	69	38	39	42	**39**	**40**	**42**
Beardstown	Greater Beardstown	K06	**10**	10	10	10	11	12	13	4	4	4	10	11	11	**11**	**11**	**12**
Benton	Benton Municipal	H96	**9**	9	9	9	10	10	11	10	10	10	9	9	10	**10**	**10**	**10**
Bolingbrook	Bolingbrook's Clow International	1C5	**63**	70	78	94	67	71	78	79	79	79	64	66	72	**69**	**75**	**86**
Cahokia/St Louis	St. Louis Downtown	CPS	**110**	110	111	110	120	129	145	139	149	169	112	116	126	**115**	**120**	**128**
Cairo	Cairo Regional	CIR	**15**	15	14	14	16	18	20	20	20	20	15	16	17	**16**	**16**	**17**
Canton	Ingersoll	CTK	**18**	18	18	17	20	21	23	31	31	31	18	19	21	**19**	**20**	**20**
Carbondale/Murphysboro	Southern Illinois	MDH	**71**	72	72	72	77	83	93	85	100	133	72	75	81	**75**	**78**	**83**
Carmi	Carmi Municipal	CUL	**23**	23	23	22	25	27	31	13	13	13	23	24	26	**24**	**25**	**27**
Casey	Casey Municipal	1H8	**15**	15	15	15	16	17	19	13	13	13	15	16	17	**16**	**16**	**17**
Centralia	Centralia Municipal	ENL	**39**	39	39	38	42	45	50	26	26	26	40	41	45	**41**	**42**	**44**
Chicago	Lansing Municipal	IGQ	**51**	51	51	50	55	60	68	101	101	101	52	54	58	**53**	**56**	**59**
Chicago/Aurora	Aurora Municipal	ARR	**196**	208	220	244	210	224	249	345	370	441	200	206	225	**209**	**222**	**247**
Chicago/Lake in the Hills	Lake in the Hills	3CK	**105**	113	121	136	112	118	128	114	119	129	107	111	120	**113**	**120**	**132**
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	**215**	216	216	213	234	252	287	199	224	274	219	226	247	**225**	**234**	**250**
Chicago/Romeoville	Lewis University	LOT	**144**	160	177	214	153	162	177	143	145	150	147	152	165	**157**	**170**	**196**

Airport Information			Base Year	Population Methodology			PCPI Methodology			TAF Methodology			GA Hours Forecast Methodology			Socioeconomic Blend Methodology		
Associated City	Airport Name	FAA ID	2020	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Chicago/Schaumburg	Schaumburg Regional	06C	66	69	71	75	71	77	87	77	77	77	67	69	76	70	74	81
Chicago/Waukegan	Waukegan National	UGN	120	125	131	140	129	137	153	158	168	188	122	126	138	127	134	147
Chicago/West Chicago	DuPage	DPA	255	265	275	291	276	296	336	264	267	275	260	268	292	271	286	314
Danville	Vermilion Regional	DNV	59	59	59	59	63	66	70	67	67	67	60	62	68	61	63	65
DeKalb	DeKalb Taylor Municipal	DKB	72	75	77	81	77	83	92	65	75	95	73	76	83	76	80	87
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	18	18	18	18	19	21	23	24	24	24	18	19	21	19	20	21
Effingham	Effingham County Memorial	1H2	18	18	18	19	19	20	22	18	18	18	18	19	21	19	19	21
Fairfield	Fairfield Municipal	FWC	13	13	13	13	14	15	16	13	13	13	13	14	15	14	14	15
Flora	Flora Municipal	FOA	9	9	9	9	10	10	11	12	12	12	9	9	10	10	10	10
Freeport	Albertus	FEP	48	48	48	47	52	56	62	72	82	102	49	51	55	50	52	55
Galesburg	Galesburg Municipal	GBG	27	27	26	25	29	32	35	39	49	69	28	28	31	28	29	30
Greenville	Greenville	GRE	37	37	38	38	40	44	50	50	50	50	38	39	42	39	41	44
Greenwood/Wonder Lake	Galt Field	10C	32	34	37	42	34	36	39	48	48	48	33	34	37	34	37	41
Harrisburg	Harrisburg-Raleigh	HSB	15	15	15	15	16	18	20	20	20	20	15	16	17	16	17	18
Harvard	Dacy	0C0	31	33	36	40	33	35	38	39	39	39	32	33	36	33	36	39
Havana	Havana Regional	9I0	13	13	13	12	14	15	17	15	15	15	13	14	15	14	14	15
Jacksonville	Jacksonville Municipal	IJX	30	30	30	30	32	35	39	30	30	30	31	32	34	31	33	35
Joliet	Joliet Regional	JOT	60	67	74	89	64	68	74	71	71	71	61	63	69	66	71	82
Kankakee	Greater Kankakee	IKK	37	38	38	39	40	43	47	102	107	117	38	39	42	39	41	43
Kewanee	Kewanee Municipal	EZI	20	20	20	20	21	23	24	22	22	22	20	21	23	21	22	22
Lacon	Marshall County	C75	41	41	40	39	44	47	52	40	40	40	42	43	47	43	44	46
Lawrenceville	Lawrenceville-Vincennes International	LWV	20	20	20	20	22	23	26	68	68	68	20	21	23	21	22	23
Lincoln	Logan County	AAA	13	13	13	12	14	15	17	31	36	46	13	14	15	14	14	15
Litchfield	Litchfield Municipal	3LF	33	33	33	33	36	38	42	39	39	39	34	35	38	35	36	38
Macomb	Macomb Municipal	MQB	27	27	27	26	29	31	34	25	25	25	28	28	31	28	29	30
Mattoon/Charleston	Coles County Memorial	MTO	57	58	58	59	61	65	71	58	58	58	58	60	65	60	62	65
Metropolis	Metropolis Municipal	M30	14	14	14	14	15	16	18	14	14	14	14	15	16	15	15	16
Monee	Bult Field	C56	64	71	79	95	68	72	79	71	71	71	65	67	73	70	76	87
Monmouth	Monmouth Municipal	C66	9	9	9	9	10	10	12	11	11	11	9	9	10	10	10	11
Morris	Morris Municipal-James R. Washburn Field	C09	62	66	70	78	67	71	78	50	50	50	63	65	71	67	71	78
Mount Carmel	Mount Carmel Municipal	AJG	17	17	17	17	18	20	22	19	19	19	17	18	19	18	19	20
Mount Sterling	Mount Sterling Municipal	I63	10	10	10	10	11	12	13	9	9	9	10	11	11	11	11	12
Mount Vernon	Mount Vernon Outland	MVN	32	32	32	32	35	38	43	43	43	43	33	34	37	34	35	38
Olney-Noble	Olney-Noble	OLY	15	15	15	15	16	17	18	18	18	18	15	16	17	16	16	17
Paris	Edgar County	PRG	14	14	14	13	15	16	18	13	13	13	14	15	16	15	15	16
Paxton	Paxton	1C1	8	8	8	8	9	9	10	Not in	Not in	Not in	8	8	9	9	9	9

Airport Information			Base Year	Population Methodology			PCPI Methodology			TAF Methodology			GA Hours Forecast Methodology			Socioeconomic Blend Methodology		
Associated City	**Airport Name**	**FAA ID**	**2020**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
										TAF	TAF	TAF						
Pekin	Pekin Municipal	C15	**46**	47	47	48	49	52	57	44	44	44	47	48	53	**48**	**50**	**53**
Peoria	Mount Hawley Auxiliary	3MY	**52**	53	53	53	56	60	66	54	54	54	53	55	60	**55**	**57**	**60**
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	**38**	38	38	38	41	44	49	42	42	42	39	40	44	**40**	**41**	**44**
Pinckneyville	Pinckneyville-Du Quoin	PJY	**20**	20	20	20	22	23	25	32	32	32	20	21	23	**21**	**22**	**23**
Pittsfield	Pittsfield Penstone Municipal	PPQ	**9**	9	9	8	10	10	12	11	11	11	9	9	10	**10**	**10**	**10**
Pontiac	Pontiac Municipal	PNT	**17**	17	17	17	18	20	22	19	19	19	17	18	19	**18**	**19**	**20**
Poplar Grove	Poplar Grove	C77	**0**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	**14**	14	15	15	15	16	18	12	12	12	14	15	16	**15**	**16**	**17**
Robinson	Crawford Co	RSV	**16**	16	16	16	17	18	20	15	15	15	16	17	18	**17**	**17**	**18**
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	**33**	33	34	34	35	38	41	22	22	22	34	35	38	**34**	**36**	**38**
Rushville	Schuy-Rush	5K4	**5**	5	5	5	5	6	7	Not in TAF	Not in TAF	Not in TAF	5	5	6	**5**	**6**	**6**
Salem	Salem-Leckrone	SLO	**10**	10	10	10	11	12	13	11	11	11	10	11	11	**11**	**11**	**12**
Savanna	Tri-Township	SFY	**9**	9	9	8	10	10	11	10	10	10	9	9	10	**10**	**10**	**10**
Shelbyville	Shelby County	2H0	**18**	18	18	18	19	20	22	22	22	22	18	19	21	**19**	**19**	**20**
Sparta	Sparta Community-Hunter Field	SAR	**30**	30	30	30	32	35	38	31	31	31	31	32	34	**31**	**33**	**34**
Sterling/Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI	**41**	41	41	41	44	47	52	45	45	45	42	43	47	**43**	**44**	**47**
Taylorville	Taylorville Municipal	TAZ	**14**	14	14	14	15	16	18	20	20	20	14	15	16	**15**	**15**	**16**
Tuscola	Tuscola	K96	**0**	0	0	0	0	0	0	3	3	3	0	0	0	**0**	**0**	**0**
Vandalia	Vandalia Municipal	VLA	**10**	10	10	10	11	11	12	20	20	20	10	11	11	**11**	**11**	**11**
Total Based Aircraft			**3,690**	3,794	3,898	4,072	3,975	4,254	4,727	4,365	4,546	4,940	3,756	3,886	4,227	**3,885**	**4,076**	**4,400**

Sources: basedaircraft.com; IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

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7.4. Summary of Forecasts

As shown in **Table 7.13**, growth is anticipated statewide for all the IASP activity indicators through the 20-year planning horizon. All the forecasts presented in this chapter are considered unconstrained with the assumption that the projected demand is supported by increasing in population and investment in the aviation industry.

Table 7.13. IASP Forecast Summary

Forecast	Preferred Methodology	Base Year	2024	2029	2034	2039	CAGR
Commercial Service Operations	TAF	1,201,800	1,102,000	1,210,800	1,334,600	1,463,100	0.99%
Enplanements	TAF	52,190,800	57,701,600	63,821,200	70,703,400	77,838,700	2.02%
General Aviation Operations	National GA Hours Flown	1,927,400	1,978,700	2,043,500	2,123,200	2,226,600	0.72%
Based Aircraft	Socioeconomic Blend (Population & PCPI)	3,690	3,885	4,076	4,242	4,400	0.87%

Sources: basedaircraft.com; 2020 IASP Inventory & Data Form; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.5. TAF Comparison

The IASP forecasts were developed based on current and historic data and trends to project activity and demand specific to Illinois' aviation system. The FAA requires that airport and system forecasts be compared to the most recently available TAF to ensure the development of realistic aviation activity forecasts. The comparison of IASP forecasts for GA Aviation Operations and Based Aircraft activity to the TAF are provided in **Table 7.14** and **Table 7.15**, respectively. The IASP forecasts for Commercial Service Operations and Enplanements are not compared to the TAF because the preferred methodology used for those forecasts was the TAF Methodology. Therefore, those forecasts are, by nature of the preferred methodology, consistent with TAF projections.

The preferred methodology for statewide GA operations is in-line with the 2019 TAF, with only a one percent difference in the first five years and slightly over three percent difference by 2029. The based aircraft forecasts are approximately 10 percent lower than TAF projections in the first five and 10 years, primarily due to a discrepancy in data between FAA sources (basedaircraft.com versus FAA TAF).

Table 7.14. IASP GA Operations Forecast vs TAF Comparison (2019 – 2039)

Forecast Timeframe	Forecast Year	FAA Aerospace Forecast (National GA Hours Flown)	2019 TAF	Percent Difference
Base Year	2019	1,927,410	1,920,410	0.36%
Base Year + 5 Years	2024	1,978,653	1,957,991	1.06%
Base Year + 10 Years	2029	2,043,498	1,977,663	3.33%
Base Year + 15 Years	2034	2,123,194	1,998,977	6.21%
Base Year + 20 Years	2039	2,226,617	2,022,102	10.11%
CAGR 2019-2039		0.72%	0.26%	0.47%

Sources: FAA Aerospace Forecasts, 2021 – 2041; FAA TAF, 2019; Kimley-Horn, 2022

Table 7.15. IASP Based Aircraft Forecast vs TAF Comparison (2019 – 2039)

Forecast Timeframe	Forecast Year	Socioeconomic Blend Forecast	2019 TAF	Percent Difference
Base Year	2020	3,690	4,218	-12.52%
Base Year + 5 Years	2025	3,927	4,401	-10.78%
Base Year + 10 Years	2030	4,111	4,585	-10.34%
Base Year + 15 Years	2035	4,276	4,778	-10.52%
Base Year + 20 Years	2040	4,428	4,983	-11.14%
CAGR 2020-2040		0.87%	0.80%	0.08%

Sources: Woods and Poole Economics Inc.; FAA TAF, 2019; Kimley-Horn, 2022

7.6. Summary

The IASP aviation activity forecasts were developed to project reasonable demand changes with the state's aviation system over a 20-year planning horizon. The forecasts developed for the IASP project modest growth in enplanements, based aircraft, and GA and commercial operations. As noted previously, airports should consider the IASP forecasts in their planning, but should rely on their own, airport-commissioned forecasts to justify facility needs.

Chapter 8. Future Aviation Scenarios

8.1. Introduction

The IASP evaluates the existing and future demands on Illinois' aviation system to provide IDOT Aeronautics with guidance on capital needs over a 20-year planning horizon. Existing and future demands are typically evaluated at a gradual, incremental level as changes in aviation demand and economy occur over time. Because the changes to the system are gradual, this analysis provides a higher degree of certainty related to system demand in the short term, or three to five years. Beyond the three-to-five-year timeframe, influences on aviation demand and the economy become more difficult to plan for and predict. In the five-20-year timeframe, demand may be influenced by scenarios that cannot be foreseen, such as an economic recession or global pandemic. For example, in recent history the COVID-19 pandemic, the Great Recession of 2008, and the terrorist attacks on September 11, 2001 have had significant effect on the aviation industry, including the evolution of airline service and airport facilities. Each of these events had fundamental impacts to the entirety of the aviation system that were largely unplanned. In addition to these monumental events, technological advances also influence aircraft design, fuel alternatives, and airport development in notable ways.

To seek to identify and address some of these unknowns, this chapter documents anticipated or possible scenarios that could impact Illinois' aviation system in the future. The scenarios were developed in two parts to identify a possible "what if?" scenario as well as a "could we?" solution. Commercial service, general aviation (GA), and COVID-19 were the three main scenarios analyzed for future aviation scenario solutions.

8.2. Commercial Service

Over the last decade, due to a variety of reasons, including healthy economic conditions, the commercial service industry experienced significant growth. In 2009, air carriers served over 700 million passenger enplanements and by 2019, annual passenger enplanements were over 920 million. The COVID-19 pandemic reduced commercial activity significantly in 2020 and 2021; however, air travel is rebounding due to growth in e-commerce, air cargo, and leisure activity. The last decade is proof that the industry is vulnerable to sharp changes brought on by economic disruptions, technological advances, and others. Due to the industries continued emphasis to recover from the effects of COVID-19, the subsections below highlight three potential scenarios that may be experienced in Illinois in the coming years as a result of the pandemic. These include:

- Regional Service Markets
- Essential Air Service (EAS)
- Passenger Facility Charges (PFCs)

8.2.1. Regional Service Markets

What if...

regional markets experience sustained contractions and reduced service?

Could We...

consider facilitating consolidation of traffic and multimodal solutions for access to large hub airports?

Illinois' regional airports primarily offer short haul service to connection hub airports. Risks in regional markets for air travel existed before the pandemic, but they do even more so now as staff shortages, new transportation technologies, and recent hightened attention to carbon emissions, may dampen near-term recovery of these short-haul markets. There are several factors that pose a threat to Illinois' short-haul service including:

- Regional carrier workforce shortage
- Driverless vehicle adoption for short-haul trips
- National carbon emission reduction programs

8.2.1.1. Regional Carrier Workforce Shortage

Like trends across the nation, regional air carriers are experiencing workforce shortages across all levels and job types, from entry-level positions, such as baggage handlers to highly qualified positions, such as pilots and technicians. Some workforce shortages predate the COVID-19 pandemic but have been exacerbated by the pandemic and its ancillary effects and pose a larger challenge for airline recovery as the pandemic continues. Most U.S. airlines used federal COVID-19 relief funds to avoid involuntary staff furloughs and layoffs. Although in some cases, airlines also offered early retirement and voluntary departure packages to reduce overall staff and operating costs. Some network carriers were forced to cut or cancel flights because of staffing shortages.

8.2.1.2. Driverless Vehicle Adoption for Short-Haul Trips

Over the 20-year planning period, driverless vehicles may be certified and used by former air passengers that choose instead one mode of transportation instead of multiple connections from origin to destination. On a short-haul trip of less than 250 miles, the trip to the airport, a nonstop or connecting flight, and ground transportation to the destination, while generally accepted today, may become a less compelling choice if a passenger can take make one driverless vehicle trip door-to-door. This alternative mode of travel could compete effectively with regional air service to a hub airport.

8.2.1.3. National Carbon Emission Reduction Programs

The movement to fly responsibly (or not fly at all) speaks to growing awareness of climate change and the desire to reduce carbon emissions. Twenty-five percent of airplane emissions occur during take-off and landing, which is especially impactful for short-haul flights, which spend the least amount of time at cruising altitude. It is possible that attitudes about reducing emissions will erode demand for short-haul air travel and/or increase pressure to support alternate fuels or participate in carbon offsetting programs.

As changes to regional service markets continue to evolve, it is important for all modal partners across IDOT to remain connected to allow for a more streamlined adoption and implementation of passenger travel choice. While no one change is necessarily bad, understanding the impacts across modes is imperative to all modes of transportation working together to serve the needs of residents and visitors to the state.

8.2.2. Essential Air Service (EAS)

What if...

EAS subsidy levels are negatively impacted by inflation and higher fuel prices?

Could We...

actively pursue EAS renewals and sufficient subsidies to maintain air service at Illinois' smallest commercial service airports?

The Essential Air Service (EAS) program was developed to subsidize a minimum level of air service in remote markets in response to the Airline Deregulation Act of 1978. Today, the U.S. Department of Transportation (USDOT) provides EAS support to 110 communities in the continental U.S. and Puerto Rico and 60 small communities in Alaska that depend on air access. As of March 2021, EAS airports in the lower 48 states and Puerto Rico received approximately $312 million for an average of $2.8 million in subsidies per EAS recipient airport.

EAS is a popular program for small communities. Despite its popularity, Congress has limited the scope of the EAS program by establishing eligibility criteria that must be met every time an EAS contract is renewed. EAS contracts are typically for three to four years with annual subsidy increases during the contract period. The eligibility requirements established by Congress include:

- The community must be located more than 70 highway miles from the nearest medium or large hub airport.
- Per passenger subsidy rates cannot exceed $200 unless the community is more than 210 highway miles from a medium or large hub airport.
- While in the EAS program, the community must have 10 or more enplaned passengers per day to continue to remain eligible for EAS funding. (3,650 annual enplanements)

Communities that fail to meet one or more of these requirements can apply for a waiver from exemption, though it is not guaranteed that exemptions will be granted by USDOT. The loss of EAS service in small communities often leads to a complete termination of commercial air service. There are three EAS airports in Illinois. These airports are Decatur (DEC), Veterans Airport of Southern Illinois (MWA), and Quincy Regional-Baldwin Field (UIN). EAS in Illinois consists of the following service:

- SkyWest Airlines, operating as a United Express carrier, provides 12 nonstop roundtrips per week between DEC and Chicago O'Hare International (ORD). The SkyWest Airlines contract term expires in January 2025.

- Cape Air provides EAS from UIN with 18 nonstop roundtrips to ORD and 18 nonstop roundtrips to St. Louis-Lambert Airport (STL). The Cape Air contract is for four years.
- Cape Air also provides nine-seat turboprop service from MWA in Marion to Nashville International (BNA) at 12 weekly roundtrips and 24 roundtrips to STL. The current Cape Air contract at MWA expires in November 2023.

In an environment of higher inflation and potentially higher fuel prices, it will be important that EAS subsidies cover anticipated increase in costs over the lifetime of the contract. While the future of the EAS program is not known, IDOT Aeronautics should continue to engage with EAS airports in the state to remain ahead of issues and appropriately communicate concerns at a statewide level.

8.2.3. Passenger Facility Charges (PFCs)

What if...

funding levels for PFCs do not increase?

Could We...

explore other funding sources to maintain, update, or replace airport infrastructure at commercial service airports?

Illinois' commercial service airports finance capital improvement programs through a variety of funding sources, such as PFCs, airport revenues, debt instruments, and a variety of public support programs, including the federal Airport Improvement Program (AIP), state grants, and matching contributions from local government sources.

During the COVID-19 pandemic, airports were supported by three additional federal grant programs:

- The Coronavirus Aid, Relief, and Economic Security (CARES) Act
- Coronavirus Response and Relief Supplemental Appropriation Act (CRRSAA)
- American Rescue Plan

COVID-19 related grant awards were based on the number of annual passenger enplanements at commercial service airports. A separate, lower amount of funding was set-aside for GA airports based on NPIAS classification (i.e., national, regional, local, basic, and unclassified).

Most recently, in December 2021, the FAA announced first year awards from the Bipartisan Infrastructure Law (BIL) in the amount of $2.89 billion for 3,075 airports.[121] BIL funds can be invested in runway,

[121] https://www.faa.gov/bil

taxiway, safety, sustainability, terminal, in-airport transit, and airport roadway projects. The funds will come from the Airport Infrastructure Grant program, one of three new aviation programs created by the BIL. The law provides $15 billion over five years for airport infrastructure projects that increase safety and expand capacity. In addition, the BIL provides $5 billion to replace aging terminals, increase terminal energy efficiency and accessibility, and $5 billion to replace air traffic facilities and equipment. The FAA estimates the backlog of airport modernization and safety projects totals $43.6 billion.[122] Illinois airports have been allocated $123.6 million in the first year of the Bipartisan Infrastructure program as follows:

- Chicago O'Hare International (ORD) - $73.7 million
- Chicago Midway International - $20.3 million
- Non-hub commercial airports - $1 to $3 million each
- National GA airports – $763,000 each
- Regional GA airports – $159,000 to $259,000 each
- Local and basic GA airports – $110,000 to $159,000 each

Allocations from the BIL require local matches like Airport Improvement Plan (AIP) match requirements. PFCs revenues are federally authorized to be used as match fund sources.

PFCs are federally authorized user fees paid by a passenger at the time of ticket purchase. PFCs collected from passenger ticket sales are distributed back to airports following confirmed passenger boardings. All of Illinois' commercial services airports partake in the PFC program. There is a high demand to use PFCs revenues as a funding source for airport projects because the funds can be used for a wider range of projects than AIP grants. PFCs can be used to fund airport capital projects, debt service, and financing costs.

In 2001, Congress capped the maximum PFC fee at $4.50 per flight leg with a maximum allowable fee of $18 per round trip per passenger. The future of this established PFC cap remains uncertain. Rising construction and inflation cost erode the ability to fund projects with PFCs, like other types of funding revenues. Policymakers have considered various options to adjust and change the current PFC maximum cap, including a fixed increase, indexing to inflation, and removing the cap entirely. To date, Congress has opted to keep the PFC cap in place.

In the short term, COVID-related airport grants and the BIL will deliver additional funding for airport capital projects. The availability of these funds will likely reduce political pressure to raise the maximum cap on PFC funds or remove the cap altogether. However, GA airports will have to raise matching funds to unlock BIL grants. Due to the many uncertainties that these funding mechanisms have imposed and the cap remaining on PFCs for the foreseeable future, it is important for Illinois to continue to study and evaluate the changing funding landscape to remain prepared and vigilant in its ability to respond to both positive and negative developments.

8.3. General Aviation

General aviation makeup the vast majority of airports across Illinois and serve as local connections to communities throughout the state. Despite their numbers, GA airports receive significantly less funding than their commercial service partners and are in many instances even more susceptible to shifts in the economy and changes in demand. Because GA airports are so critical to the overall health of the aviation

[122] aa.gov/newsroom/faa-announces-first-year-airport-funding-amounts-bipartisan-infrastructure-law

industry, it is critical that GA airports continue to be developed in a safe manner to allow for the ever-changing landscape they operate in. To assist in identifying and addressing some these, the following GA-related alternatives were evaluated:

- GA fleet changes
- Shifts to alternative fuel sources
- Changes to existing rates and charges models

8.3.1. General Aviation Fleet Changes

What if...

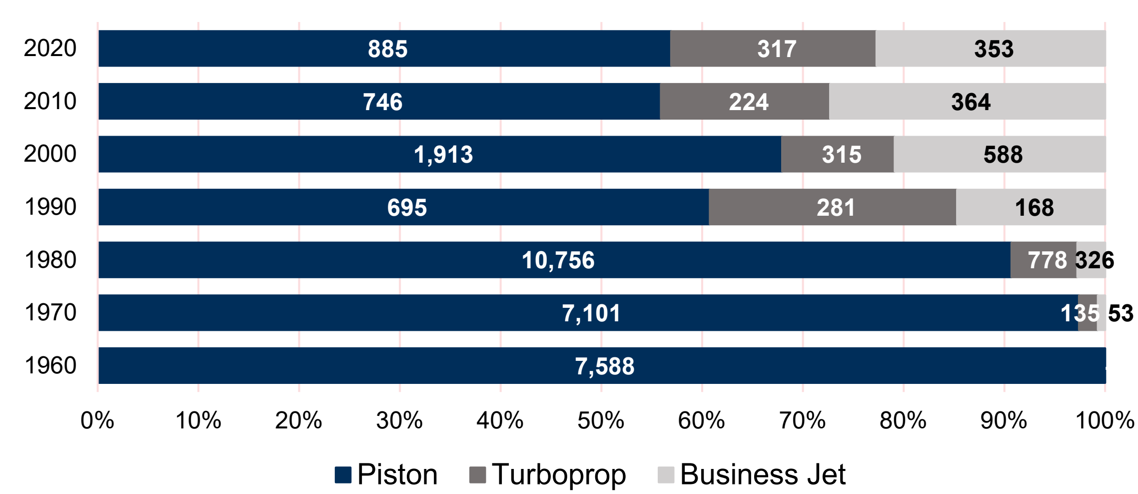
electric aircraft change the skill sets required by aviation maintenance and repair professionals?

Could We...

proactively develop and/or support A&P and pilot programs in Illinois that include electric aircraft?

The predominant type of GA aircraft utilized by pilots has long been piston aircraft. In recent years, the market share of larger private jets has increased, causing many airports to request expanded facilities to meet these changes in aircraft fleet mix. To illustrate this, **Figure 8.1** shows GA aircraft shipments by type from 1960-2020.

Figure 8.1. GA Aircraft Shipments, 1960-2020



Source: GAMA 2020

As shown, the decline in market share of piston aircraft has led to the increase in market share of turboprops, jets, all-electric, and hybrid-electric aircraft. Turboprop and jet aircraft are forecasted to increase at an average annual rate of 1.7 percent. The COVID-19 pandemic exacerbated this issue with a substantial increase in consumer interest in these types of larger jet aircraft through charters and fractional ownership as commercial air service was constrained. Adding to the issue, helicopters, experimental aircraft, and sport aircraft are also experiencing an increase in market share of the GA fleet. While still a small segment, there is evidence that experimental and sport aircraft may be replacing some piston aircraft as they offer lower entry and ownership costs.

New technologies are beginning to enter the market that may further transform the future GA fleet. Small all-electric and hybrid-electric aircraft present new opportunities for smaller airports as the aircraft can operate on shorter runways. All-electric and hybrid aircraft generate less noise than piston and other aircraft, allowing for their operation in urban areas where noise pollution has been a concern. Electric aircraft also have a significantly lower cost of flying than other aircraft types. All-electric aircraft also produce less carbon emissions than non-electric aircraft, especially if their electric generation sources also use renewable resources.

Other alternatively powered aircraft, such as hydrogen-powered aircraft, are also under development. NASA is supporting research for development of all electric aircraft using a liquid hydrogen fuel cell propulsion system.[123] Use of hydrogen fuel could result in increased efficiency and maintain zero emissions. These technologies could eventually replace traditional fuels for small GA aircraft, air taxis, and regional air carriers.

The advent of new alternative fuels, electric aircraft, and increasing use of jet aircraft to the active GA fleet are very likely to alter the pilot and maintenance skills required to fly and service the new aircraft. As these aircraft become more prevalent, the aviation workforce, including pilots, aircraft mechanics, and avionics professionals, will have to develop new skills to operate and maintain these aircraft. IDOT Aeronautics, airports, and the aviation industry should continue to be proactive and promote the advancement of curriculums that include alternative fuels and electric aircraft.

8.3.2. Adoption of Unleaded Fuel for Piston Aircraft

What if...

supplies of the new unleaded piston fuel are slow to expand?

Could We...

explore ways for airports to handle the transition period when supplies of both fuels are in demand?

In July of 2021, the FAA approved the use of unleaded fuel for piston aircraft (G100UL). This new fuel is considered a 'drop-in' fuel, meaning a separate fueling system is not needed for piston aircraft. Once G100UL fuel supplies become adequate, G100UL will likely replace 100LL fuel in most piston aircraft. Illinois has an estimated 3,690 based aircraft (2020), of which many are powered by 100LL fuel. As

[123] Quailan Homann. "Aviation." 2019. http://www.fchea.org/in-transition/2019/11/25/aviation

supplies of G100UL become more available, fixed base operators (FBOs) and self-service fueling stations may convert to the new fuel. As this transition period occurs, it would be advisable to store supplies of unleaded and low leaded fuel separately, either in separate tanks or fueling trucks, so that fuel customers can purchase one or the other fuel without commingling the products. As this change begins to occur on a broad scale, airports across Illinois should be preparing and planning for how this change may impact the services that they offer. IDOT Aeronautics should continue to work its airport partners to ensure that as changes occur, demand across the state is met in an equitable and efficient manner.

8.3.3. Charging Stations and Power Generation

What if...

electric aircraft usage is limited by availability of charging stations and the capacity of the electric distribution system?

Could We...

expand electric capacity at airports through on-site power generation or partnerships with local utilities.

Electricity, power generation, and charging station infrastructure must be widely and readily available at competitive prices for aircraft owners to purchase and operate electric airplanes. Further, the power sources for electric charging stations primarily come from renewable sources to be an efficient emission-reducing solution at airports. Airports will need multiple charging stations and on-airport power generation to facilitate and support electrical aircraft operations. Currently, there is no single plug-in standard for universal charging stations. Until equipment is standardized, airports would have to install different types of charging facilities for individual aircraft types.

Many airports generate solar or geothermal power on airport property for their own use or for use by local utility companies. To advance the adoption of electric aircraft, the following must happen:

- Complete the design and testing for electric aircraft
- Design a standardized, rapid charge plug-in system for different types of electric aircraft
- Study the capability of local power generation to support electric aircraft and electric vehicles
- Add capacity for electrical aircraft and vehicle charging from renewable energy sources
- Deploy a national, standardized system for charging stations at airports

Implementation of a national system of charging stations and sufficient low emission power generation to support electric vehicles and aircraft is a private enterprise and multi-agency effort that will take place at the local, state, and national levels. Similar to electric vehicles, the availability of electric aircraft may precede the infrastructure needed to support widespread adoption of charging infrastructure. It should be noted that $65 billion has been allocated for improving the country's power grid and transmissions lines in the BIL.[124] To remain ahead of this issue, it may be beneficial for Illinois to study and evaluate locations

[124] https://www.ase.org/blog/heres-how-infrastructure-bill-improves-grid

where these changes are likely to occur first to allow for a more proactive response to these changes in airport facility needs.

8.3.4. Rates and Charges Models

What if...

GA fuel sales or flowage fees decline because of electric aircraft, or other propulsion/fuel options?

Could We...

Create a new statewide funding model that would help airports to establish fee structures that cover the costs to provide electricity for electric aircraft?

Electric aircraft offer numerous advantages, such as reduced cost of operations, improved air quality, fewer carbon and greenhouse gas emissions, and lessened noise profiles compared to combustion engine aircraft. Based on current market forecasts, it is likely that small two- and four-seat electric aircraft will be the first aircraft be widely purchased and operated. Currently, many small airports operate self-service fuel for piston aircraft. Fuel sales provide a reliable revenue source for small, fuel selling airports. Similarly, at airports with fixed base operators (FBOs) managing fueling operation, fuel sales also provide a revenue source. For small aircraft, the flowage fees and markups are relatively low. The growing presence of electric and alternately powered aircraft may erode fuel revenues at airports of all sizes if Illinois continues to utilize traditional fuel tax mechanisms. While this is certainly true for airports, it is not unique to the aviation industry, as all modes of transportation continue to push toward electrification. As a collective modal unit, Illinois must prepare for these changes and prepare to be able to offset decreases in traditional fuel revenues that will be felt from the continued electrification of all modes of transportation.

Growth in aircraft electrification may also impact the broader electricity grid, particularly if widespread adoption of electric aircraft happens concurrently with the widespread adoption of electric cars, buses, railcars, and boats. This added demand on the grid will require utility companies to construct new transmission lines and substations.

Illinois is a net exporter of electricity and is served by two electrical grids. As of March 2019, most of the state's electricity (54 percent) was generated by nuclear power, natural gas (seven percent), coal (30 percent), and renewable energy (ten percent).[125]

If electric aircraft are widely adopted, airports will need to find ways to set rates at charging stations that can subsidize the cost of electricity, power generation, and the infrastructure needed to provide the service, while also ensuring that the state's electrical grid is expanded to accommodate these new entrants. State guidelines and methodologies for setting rates and charges for electric aircraft would be a helpful resource for Illinois airports as the adoption of electric aircraft continues to grow.

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[125] https://ilenviro.org/energy/

8.4. COVID-19 Impacts

Between 2009 and 2019, compound annual growth for domestic air traffic was 2.6 percent per year while international air traffic grew by 4.9 percent per year. This period of growth and prosperity ended in March 2020 when COVID-19 stay-at-home orders and travel restrictions brought the aviation industry, along with many others, to a standstill. In 2020, total U.S. passenger volumes declined by 61 percent relative to 2019, with domestic traffic declining 59 percent and international by 74 percent.[126] COVID-19 impacted airline traffic across the country and globe in the following ways:

- **Passenger Traffic**. All commercial service airports experienced a near shutdown during the height of COVID-19 related restrictions. The near shut down of commercial service shifted some air traffic to private GA operations and airports. The return of operations at commercial service airports was influenced by the passenger and carrier mix at individual airports. Those airports that served destination markets, such as Orlando, FL or Jackson Hole, WY, tended to recover faster than airports in non-destination markets. Airports that had a significant proportion of low-cost carriers (LCCs) or ultra-low-cost carriers (ULCCs) also typically experienced a faster recovery. International markets have recovered much slower than domestic markets due to varying levels of COVID-19 related travel restrictions across the globe.
- **Aircraft Operations**. Carriers continued to operate flights, either to maintain market position or to satisfy requirements for government support. In general, operations did not decline as much as passengers. To reduce operating costs, some airlines concentrated their flights during certain times of the day. At hub airports, carriers reduced connecting banks. In some instances, GA operations dipped slightly, but in most cases, GA airport operations increased as business travelers sought to avoid commercial airports. Additionally, air cargo operations significantly increased to meet rising e-commerce demand and to offset lost capacity previously available in passenger aircraft.
- **Airport Revenues**. Airport revenues tied to passenger activity declined substantially during the COVID-19 pandemic. These revenues included PFCs, retail and concession, parking, and rental car revenues. Airports had to reduce minimum revenue guarantees (MRGs) to link concession revenues more closely to reduced passenger levels.
- **Operating Costs**. Airports reduced operating costs in many functional areas by reducing the number of open parking lots, closing some retail and restaurant concessions, cancelling or renegotiating contracts with service providers and suppliers, postponing capital projects, and concentrating on highest priority and necessary expenditures. Often these reductions in costs were offset by additional costs for cleaning and pandemic safety protocols. Federal support through the CARES Act, CRRSAA, and the ARP helped airports provide relief funding to concessionaires and tenants, maintain operations, cover airport staff salaries, and service debt.
- **On-going Capital Projects**. Airports took different approaches to on-going capital projects in response to COVID-19. Some airports chose to accelerate runway and terminal projects while traffic and operations were lower, while others slowed or postponed projects due to varying levels of revenue streams.

[126] United States Department of Transportation, Bureau of Transport Statistics, *Air Carrier Statistics (Form 41): T100 Segment (All Carriers)*

- **Staffing**. Like other industries, staffing was difficult, especially in the early days of the pandemic. Some airports formed teams to carry out airport duties; however, if one team came down with COVID-19, other teams worked much longer hours.

While the aviation industry has endured recessions and other tragic events, prior experience with short-term closures did not fully prepare airport and airline staff for the COVID-19 pandemic. The extent and severity of COVID-19 as an acute shock event may have permanently altered ways that airports plan for and consider risk and response to future events.

8.4.1. Pandemic Persists

What if...

Pandemic conditions persist?

Could We...

Offer strategies to permanently reduce health risks in facilities and to pursue administrative policies that help to control operating costs, staffing levels, and project financing?

Despite being two years into the pandemic, the question of how aviation industry recovery will unfold is still in question. Domestic traffic has returned but remains well below 2019 levels in most markets. International traffic has been slower to recover due to the emergence of virus variants and individual country travel restrictions. Airport administrations across the country have adopted pandemic strategies that may remain in place for the near future. Some of these strategies include the following:

- The adoption of more touchless technologies for passenger check-in, baggage handling, and biometric identification
- Increased spending for in-terminal and on-airport cleaning
- The inclusion of scope of work and payment provisions to contracts in the event of a shock event that disrupts air travel and regular airport functions

Airports are also adapting to smaller workforces in the following ways:

- Adjusting sick leave policies to include accrued sick leave and paid leave in the event of a pandemic
- Transitioning to terminal automation for security, passenger check-ins and baggage handling as staffing levels remain low

Adopting autonomous vehicles as the technology evolves to provide safe operation and application within terminals, around airport property, and ground access to the airport. As the impacts of the pandemic continue to unfold, Illinois airports must remain vigilant in preparing for and meeting changing passenger travel patterns. It may also become imperative for the state and local communities to increase marketing opportunities to attract new entrants or expand services to capture additional users.

8.4.2. Pandemic Scenario

What if...

COVID-19 permanently alters business travel?

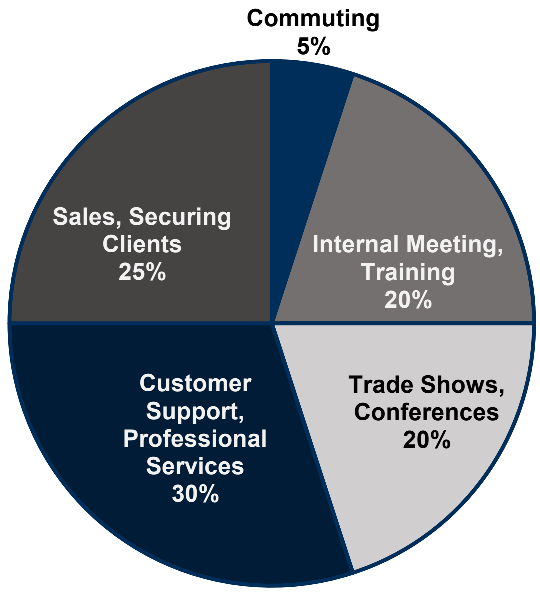
Could We...

Promote use of aeronautical and non-aeronautical uses of the airport to offset losses sustained by reduced demand for business travel?

Under pre-pandemic conditions, business air travelers who bought premium-class or refundable tickets accounted for 75 percent of airline pre-pandemic profits but only occupied 12 percent of seats.[127] Business travelers have a variety of reasons for travelling for business related purposes, as shown in **Figure 8.2**. Approximately 20 percent of all business travel prior to the pandemic was for internal meetings and training and another 30 percent was for customer support and professional services. Together these two types of business-related travel represented 50 percent of all business travel. To many businesses, the ease and efficiency of virtual online meetings has been a positive outcome of the pandemic, allowing companies to reduce travel costs. As the pandemic environment continues, the amount of business travel that will return to airlines remains in question. A decline in business travel also impacts non-aeronautical revenues at airport from parking, concessions, retail, restaurants, and rental cars. The business travel trends should be monitored as pandemic conditions continue to change and commercial service airports may benefit from developing alternative revenue sources to offset potential losses resulting from reduced business air travel trends.

[127] Alexander Michael Pearson, Tara Patel, and William Wilkes, 'Forever Changed': CEOs Are Dooming Business Travel — Maybe for Good, Bloomberg Business, August 31, 2021

Figure 8.2. Why Companies Travel



Source: AlixPartners via Bloomberg, August 2021

8.5. Summary

This chapter summarizes the potential impacts of commercial service, GA, and COVID-19 scenarios on Illinois' aviation system. Each scenario identified a potential action that could be implemented or considered by airports or IDOT Aeronautics. The impacts of COVID-19 may linger in the aviation industry for years to come. Additionally, new aviation and energy technologies may have a signification effect on future facilities, infrastructure needs, services, and revenues at Illinois' airports. It will be important for Illinois' airports to increase their resiliency in the face of changing technologies, revenue streams, and funding opportunities as shifts in the industry continue to occur.

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Chapter 9. Cost Estimates

9.1. Introduction

Illinois' aviation system should be developed so that it can support the needs of current and future demand. To continue to meet such needs, the Illinois Department of Transportation (IDOT) understands that maintaining and expanding the system requires continued investment. The focus of this chapter is to present the cost estimates for recommended projects needed to maintain and expand the system over 20-year planning horizon (2019 – 2039).

IASP cost estimates are presented by Goal, Facility and Service Objective (FSO), and by systemwide minimums. IASP cost estimates are further organized in each subsection and presented by project type (i.e., planning, maintenance, or expansion), project timeframe (i.e., near-, mid-, and long-term), as well as by IASP airport classification.

The sections in this chapter are presented as follows:

- Cost Estimate Methodology
- IASP Cost Estimates by Goal
- IASP Cost Estimates by Facility & Service Objective
- IASP Cost Estimates by Systemwide Minimums
- Summary of Cost Estimates

9.2. Cost Estimate Methodology

Cost estimates were derived from deficiencies identified through Performance Measures (PMs), Facility and Service Objectives (FSOs), and systemwide minimums (**see Chapter 3 – Existing and Future System Adequacy**). Airports that had identified deficiencies in meeting future performance targets for PMs, FSOs, and/or systemwide minimums were reviewed to determine projects needed to meet the established performance metric(s).

It is important to note that inclusion of a project in the IASP is considered for planning purposes only and does not convey a commitment of local, state, or federal funding for a project. Project justification through appropriate means is still required to support funding requests. The cost estimates do not reflect actual airport capital improvement plans, nor do they reflect cost estimates as developed by the IDOT Aeronautics as part of the Transportation Improvement Program or Annual Proposed Airport Improvement Program processes. The cost estimates in this chapter are entirely independent from Annual Proposed Airport Improvement Program cost estimates and airport-provided information.

9.2.1. Planning-Level Cost Estimates and Timeframes

Rough Order of Magnitude (ROM) and planning-level unit project cost estimates were developed based on industry knowledge and experience, as well as current pricing for airport projects in Illinois. The planning level unit costs were tiered to reflect costs for the different airport classifications. For example, a planning level unit cost for an Illinois Basic airport may be less than the unit cost for an Illinois Commercial Service airport. Ultimately, project costs estimates were calculated using quantities and services needed to meet satisfy PMs, FSOs, and systemwide minimums. Planning-level unit costs were multiplied by the identified quantities for each PM, FSO, and systemwide minimums project.

In addition to planning-level costs, timeframes were also determined and assigned to each project. Project timeframes include the following:

- Near-term
- Mid-term
- Long-term

All safety related projects and goal Performance Measure projects were assigned a near-term timeframe due to the importance of these projects. Expansion projects were assigned a mid-term or long-term timeframe based on project category and project feasibility. Likewise, planning projects were assigned a mid-term or long-term timeframe based on project feasibility.

Projects were also assigned a timeframe

9.2.2. Project Duplication

In some cases, an airport need was identified through both duplicate, and/or overlapping PM, FSO, and systemwide minimums project costs. Duplicate projects are projects that satisfy both a PM and FSO, a PM and a Systemwide Minimum, a FSO and a systemwide minimums, or all three. In these instances, the project costs estimates needed to meet PMs were used as default in determining the overall systemwide project cost estimate.

9.2.3. Chicago O'Hare International Airport (ORD) and Chicago Midway International Airport (MDW)

Chicago O'Hare International Airport (ORD) and Chicago Midway International Airport (MDW) were included throughout the IASP analysis, but individual projects and project costs were not developed for these two airports. Rather, cost estimates from the ORD and MDW 5-Year Airport Capital Improvement Plans (ACIP) were provided by the Chicago Department of Aviation (CDA) and adopted in the IASP.

It is important to note that the ACIP projects and associated cost estimates provided in this section are those that CDA had submitted based on anticipated grant funding and do not necessarily represent the full listing of projects that may be needed at both ORD and MDW. Additionally, the inclusion of these cost estimates in the IASP is for planning purposes only and does not convey a commitment of local, state, or federal funding for a project. The cost estimates are provided based on current conditions and do not account for any potential changes or variability of costs on environmental, design, or construction services.

9.2.3.1. O'Hare 21

O'Hare 21 is a multi-phased, long-term vision for ORD that includes several transformative capital projects over the coming years. As stated by the CDA, "O'Hare 21 is Chicago's vision for a modern airport that will be an efficient and accessible international gateway to the world and to Chicago. Through this $8.5 billion project, O'Hare will be transformed from curb to gate and meet the needs of the traveling public through the 21st century and beyond." Below is a listing of the currently identified projects:

- Terminal Area Plan
- Completion of the O'Hare Modernization Program's major airfield projects
- Near-term gate improvements
- On-airport hotel developments
- Other capital projects

O'Hare 21 is an $8.5 billion program that aims to expand travel options, reduce security wait times, improve screening and sorting of passenger baggage, and reduce airfield congestion and ground delays by improving aircraft parking positions.[128]

9.2.3.2. ORD and MDW 20-Year CIPs

In addition to O'Hare 21, ORD and MDW maintain 5-year programmed ACIPs. Each airport's 5-year ACIP was provided by CDA and adopted, however, the IASP cost estimates and needs are based on a 20-year planning horizon. To account for the remaining 15 years of ORD and MDW ACIPs, the project team estimated the annual average capital expenditures by each airport in their 5-year programmed ACIP and multiplied by 15 to obtain a cost estimate for the 20-year period for both airports.

9.2.3.3. ORD and MDW Cost Estimate Summary

Table 9.1 presents the cost estimates provided by CDA, and the additional 15 years of total estimated costs, that were included in the IASP. Over the 20-year planning horizon, projects needed to satisfy federal, state, and CDA goals at ORD and MDW are over $10.2 billion.

Table 9.1. ORD and MDW Cost Estimate Summary

Category	Cost Estimate
O'Hare 21	$8,500,000,000
ORD 5-Year CIP	$303,000,000
ORD 5-Year CIP (+15 years)	$909,000,000
ORD Subtotal	**$9,712,000,000**
MDW 5-Year CIP	$139,000,000
ORD 5-Year CIP (+15 years)	$417,000,000
MDW Subtotal	**$556,000,000**
ORD & MDW Total	**$10,268,000,000**

Note: The associated projects are funded through airline and airport user fees, airport revenues, and various eligible federal grant sources. No local taxpayer dollars are used to fund these projects. Sources: ACIP for Chicago O'Hare International Airport, 2022-2026; ACIP for Chicago Midway International Airport, 2022-2026

[128] Chicago Department of Aviation (CDA), 2020; https://www.ord21.com/home/Pages/default.aspx

9.3. IASP Cost Estimates by Goal

Five goals were developed as a foundation of the IASP and documented in **Chapter 1 – System Goals and Performance Measures**. A summary of the IASP Goals is provided in **Table 9.2**.

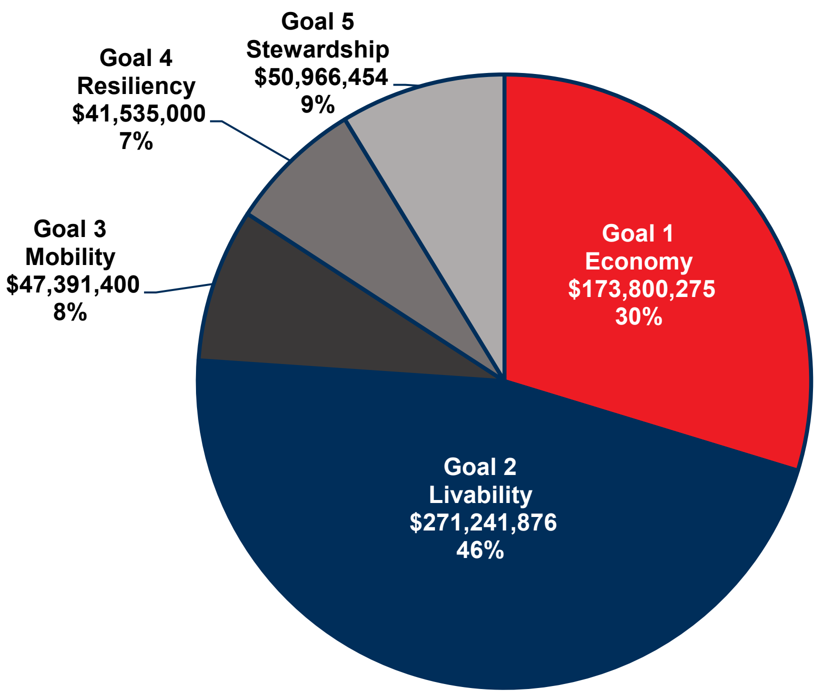
Table 9.2. IASP Goals

Goal	Description
Goal #1 – Economy	Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.
Goal #2 – Livability	Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.
Goal #3 – Mobility	Support all modes of transportation to improve accessibility and safety by improving connections.
Goal #4 – Resiliency	Proactively assess, plan, and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain and recover from extreme events and other disruptions.
Goal #5 – Stewardship	Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.

Source: Kimley-Horn, 2020

IASP cost estimates by goal are presented below which reflect the summation of needs identified through PMs and do not reflect any ORD or MDW cost estimates. Project costs were developed for each PM under each goal and are summarized in **Figure 9.1**. As shown, Goal 2 makes up the largest portion of project cost estimates at 46 percent, or $271,241,876. Comparatively, Goal 4 comprises the smallest percentage of the total Goal project cost estimate at $41,535,000, or seven percent. For additional context, cost estimates for each individual goal are provided by project timeframe, project type, and airport classification in the following subsections.

Figure 9.1. IASP Cost Estimates by Goal



Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; Crawford, Murphy & Tilly, Inc, 2020; Hanson Professional Services, 2020; Kimley-Horn, 2020

The following sections present cost estimates to achieve IASP goals by timeframe, project type, and by airport classification.

9.3.1. Goal Costs Estimates by Timeframe

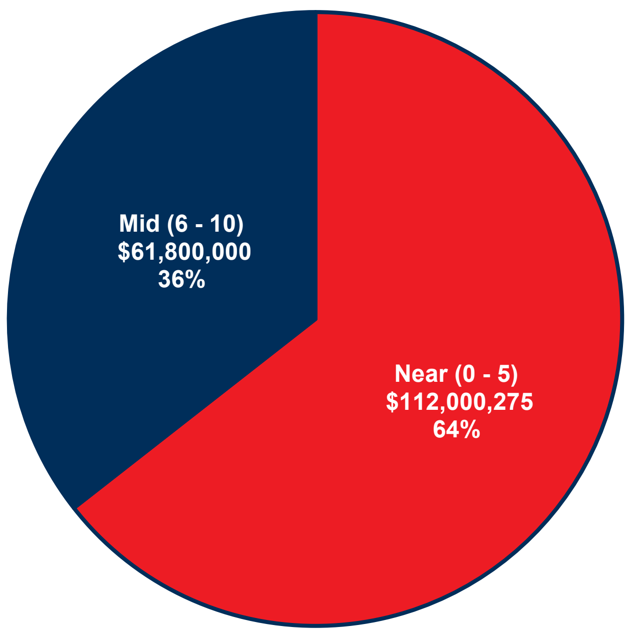
Cost estimates to achieve IASP Goals are broken down by project timeframe. The project timeframes are defined as follows:

- **Near-term** – 0 to 5 years
- **Mid-term** – 6 to 10 years
- **Long-term** –11 to 20 years

9.3.1.1. Goal 1 – Economy

Goal 1 projects are classified as either near- or mid-term projects. Near-term projects make up the largest portion of Goal 1 project costs at 64 percent, or $112,000,275, as shown in **Figure 9.2**. Mid-term projects total $61,800,000, or 36 percent of Goal 1 project costs. There are no long-term projects for Goal 1. Combined, Goal 1 projects total $173,800,275.

Figure 9.2. Goal 1 Cost Estimates by Timeframe

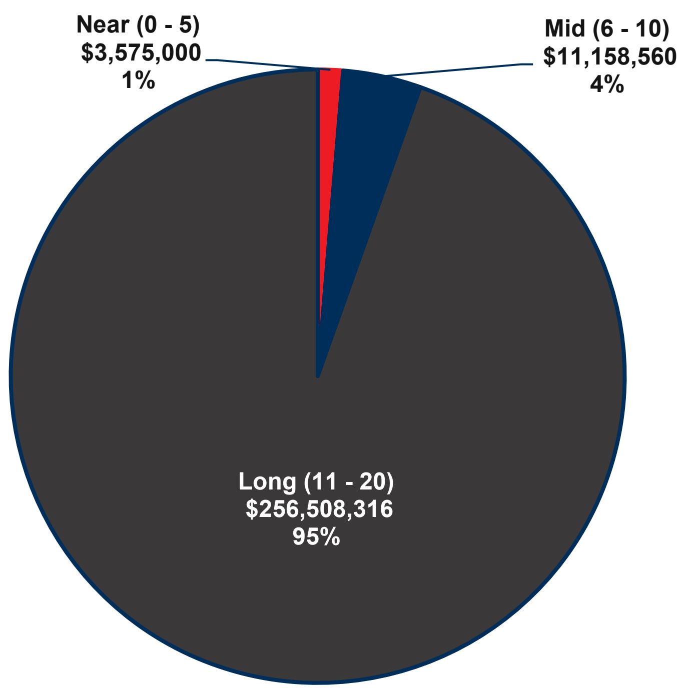


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.1.2. Goal 2 – Livability

Goal 2 projects are classified as near-, mid-, or long-term projects. Long-term projects are the largest portion of Goal 2 project costs at 95 percent, or $256,508,316. Mid-term projects comprise the second largest portion of Goal 2 project costs at four percent, or $11,158,560. Near-term projects make up the remainder of the total project costs for Goal 1 with one percent of the total, or $3,575,000. Combined, Goal 2 projects total $271,241,876. Goal 2 cost estimates by timeframe are presented in **Figure 9.3**.

Figure 9.3. Goal 2 Cost Estimates by Timeframe

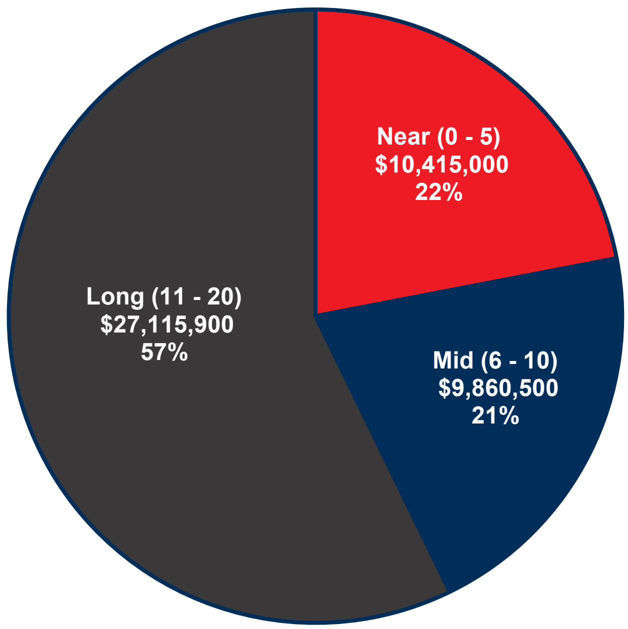


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.1.3. Goal 3 – Mobility

Goal 3 projects are classified as near-, mid-, or long-term projects. Long-term projects encompass the largest portion of Goal 3 project costs at 57 percent, or $27,115,900. Near-term projects make up the second largest portion of Goal 3 project costs at 22 percent, or $10,415,000. Mid-term projects are the remainder of the total project costs for Goal 3 with 21 percent of the total, or $9,860,500. Combined, Goal 3 projects total $47,391,400. Combined, Goal 3 projects total $41,535,000. Goal 3 cost estimates by timeframe are shown in **Figure 9.4**.

Figure 9.4. Goal 3 Cost Estimates by Timeframe



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.1.4. Goal 4 – Resiliency

The total project cost estimate for Goal 4 is $41,535,000. All Goal 4 projects are classified as near-term projects.

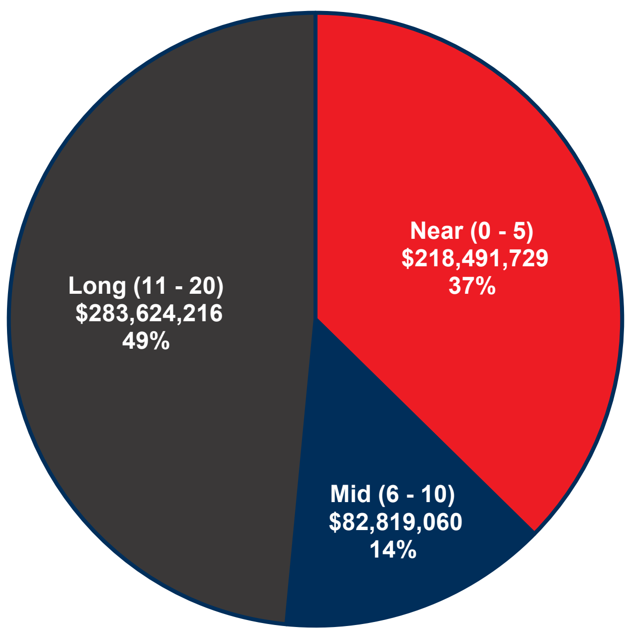
9.3.1.5. Goal 5 – Stewardship

The total cost estimate for all Goal 5 projects is $50,966,454. All Goal 5 projects are classified as near-term projects.

9.3.1.6. Systemwide

Systemwide, out of a total cost estimate of $584,935,005, long-term projects encompass the largest portion of the cost estimates by IASP Goal at $283,624,216, or 49 percent. Near-term projects make up the second largest portion of the cost estimates by IASP Goal at $218,491,729, or 37 percent. Mid-term projects comprise the remainder of the cost estimates by IASP Goal at $82,819,060, or 14 percent. Systemwide cost estimates by timeframe are shown in **Figure 9.5**.

Figure 9.5. Systemwide Cost Estimates by Timeframe



Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.2. Goal Cost Estimates by Project Type

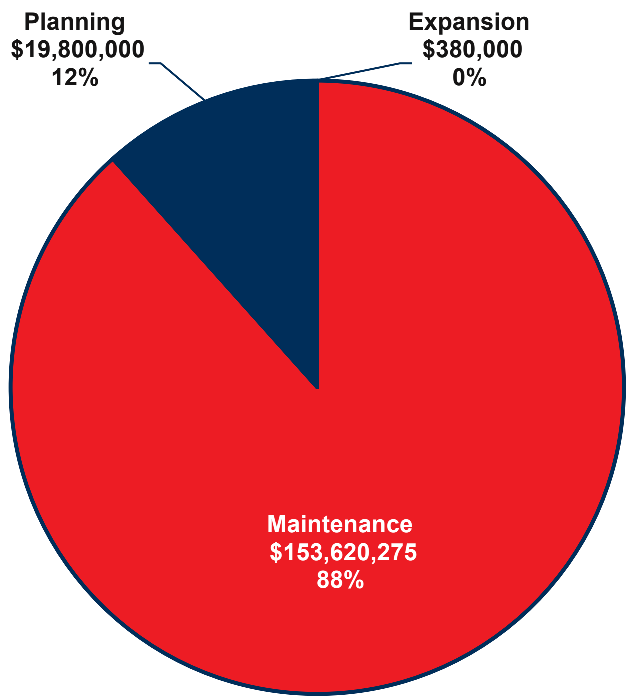
The total project cost estimate for the projects needed to meet the IASP Goals are also broken down by project type. The project types include the following:

- **Planning** – projects needed to develop planning documents and procedures at current system airports, including environmental studies as applicable
- **Maintenance** – projects needed to maintain the existing system
- **Expansion** – new infrastructure or new program projects at current system airports

9.3.2.1. Goal 1 – Economy

Maintenance projects are the largest portion of Goal 1 project costs at 88 percent, or $153,620,275. Planning projects total $19,800,000, or 12 percent, and Expansion projects total $380,000, or less than one percent of Goal 1 project cost estimates. Combined, Goal 1 projects total $173,800,275. Goal 1 cost estimates by project type are shown in **Figure 9.6**.

Figure 9.6. Goal 1 Cost Estimates by Project Type

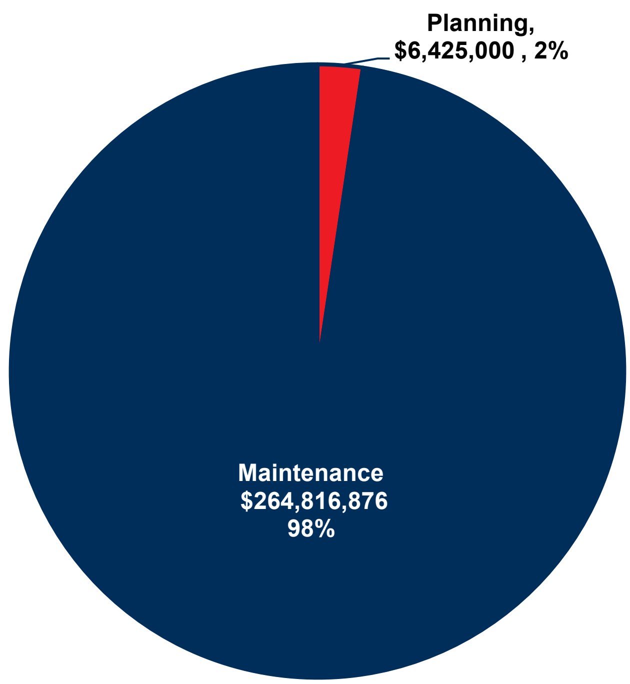


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2020; Hanson Professional Services, 2020; Kimley-Horn, 2020

9.3.2.2. Goal 2 – Livability

Maintenance projects comprise the largest portion of Goal 2 project costs at 98 percent, or $264,816,876. Planning projects total $6,425,000, or two percent of Goal 2 project cost estimates. There are no Expansion projects for Goal 2. Combined, Goal 2 projects total $271,241,876. Goal 2 cost estimates by project type are shown in **Figure 9.7**.

Figure 9.7. Goal 2 Cost Estimates by Project Type

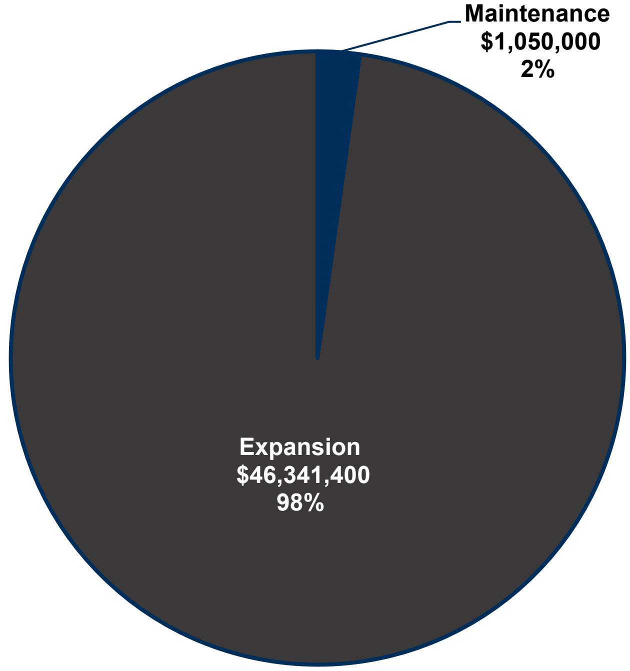


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.2.3. Goal 3 – Mobility

Goal 3 projects are classified as either Expansion or Maintenance projects. Expansion projects are the largest portion of Goal 3 project costs at 98 percent, or $46,341,400. Maintenance projects total $1,050,000, or two percent of Goal 3 project cost estimates. There are no Planning projects for Goal 3. Combined, Goal 3 projects total $47,391,400. Goal 3 cost estimates by type are shown in **Figure 9.8**.

Figure 9.8. Goal 3 Cost Estimates by Project Type

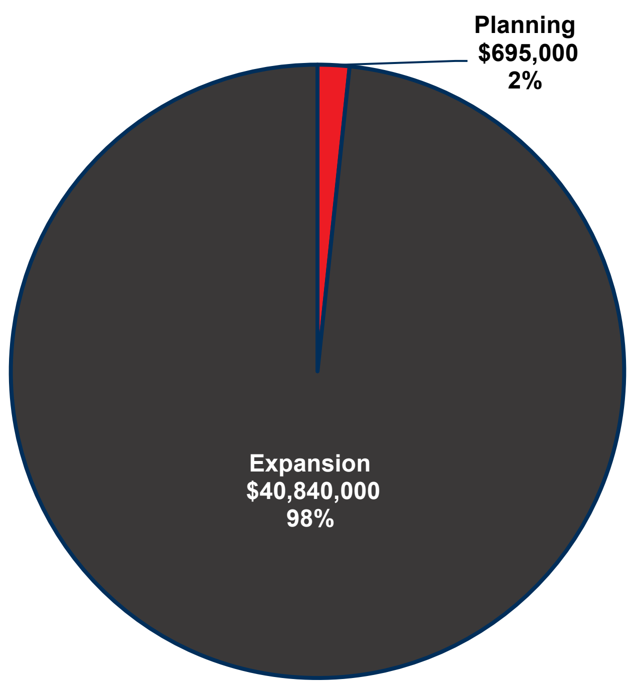


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.2.4. Goal 4 – Resiliency

Goal 4 projects are classified as either Expansion or Planning projects. Expansion projects encompass the largest portion of Goal 4 project costs at 98 percent, or $40,840,000. Planning projects total $695,000, or two percent of Goal 4 project cost estimates. There are no Maintenance projects for Goal 4. Combined, Goal 4 projects total $41,535,000. Goal 4 cost estimates by project type are shown in **Figure 9.9.**

Figure 9.9. Goal 4 Cost Estimates by Project Type

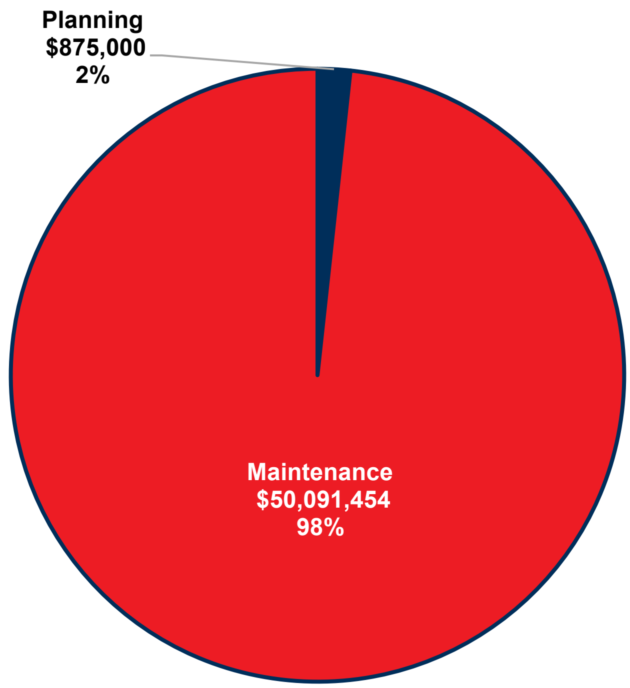


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.2.5. Goal 5 – Stewardship

Goal 5 projects are classified as either Maintenance or Planning projects. Maintenance projects comprise the largest portion of Goal 5 project costs at 98 percent, or $50,091,454. Planning projects total $875,000, or two percent of Goal 5 project cost estimates. There are no Expansion projects for Goal 5. Combined, Goal 5 projects total $50,966,454. Goal 5 cost estimates by project type are shown in **Figure 9.10**.

Figure 9.10. Goal 5 Cost Estimates by Project Type

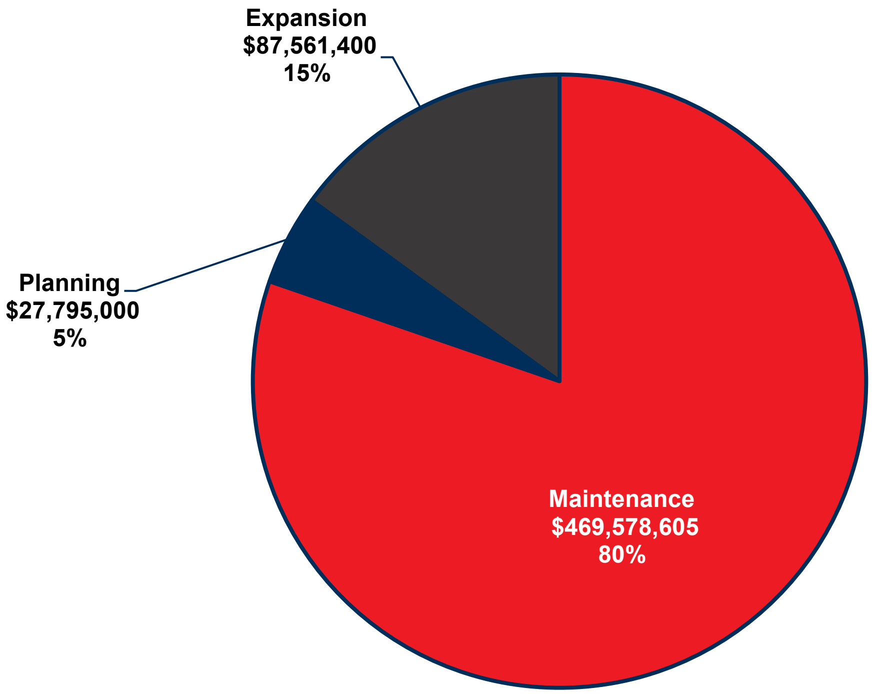


Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.2.6. Systemwide

Systemwide, out of a total cost estimate of $584,935,005, Maintenance projects are the largest portion of the total goal project cost estimate at $469,578,605, or 80 percent. Expansion projects make up the second largest portion of the total goal project cost estimate at $87,561,400, or 15 percent. Planning projects make up the remainder of the total goal project cost estimate at $27,795,000, or five percent. Systemwide cost estimates by project type are shown in **Figure 9.11**.

Figure 9.11. Systemwide Cost Estimates by Project Type



Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

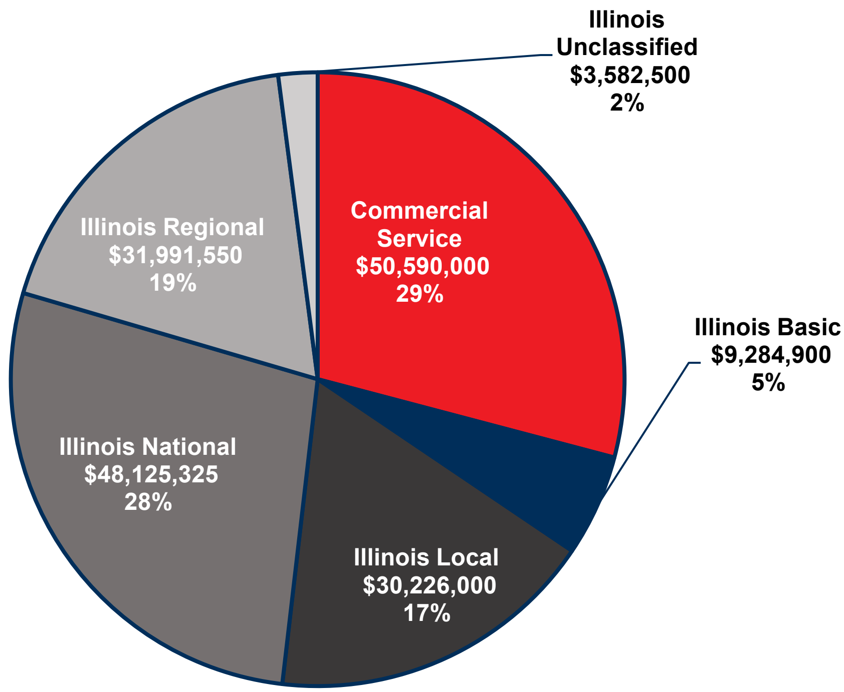
9.3.3. Goal Cost Estimates by Airport Classification

The total project cost estimate for IASP goals is also broken down by airport classification. Airport classifications were developed in **Chapter 2 – Airport Classification**.

9.3.3.1. Goal 1 – Economy

Goal 1 projects are identified for airports in all classifications. Commercial Service and Illinois National airports comprise the largest portion of the total project cost estimate at $50,590,000, or 29 percent, and $48,125,325, or 28 percent, respectively. Illinois Regional airports make total $31,991,550, or 19 percent, Illinois Local airports total $30,266,000, or 17 percent, and Illinois Basic airports total $9,284,900, or five percent of the total project cost estimate. Illinois Unclassified airports make up the remainder of the Goal 1 project cost estimate at $3,582,500, or two percent. Combined, Goal 1 projects total $173,800,275. Goal 1 cost estimates by airport classification are shown in **Figure 9.12**.

Figure 9.12. Goal 1 Cost Estimates by Airport Classification

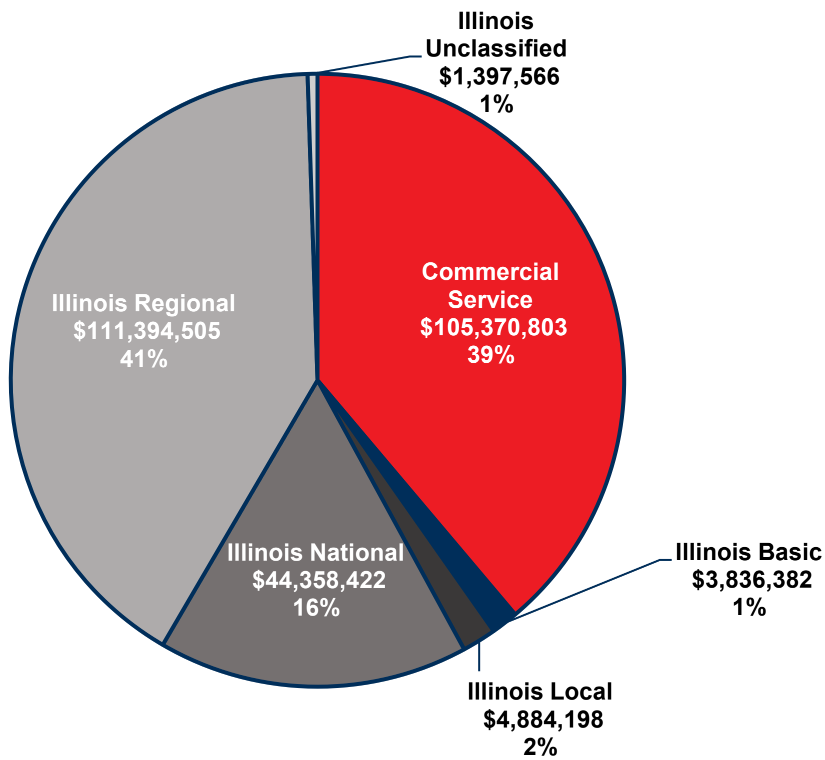


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.3.2. Goal 2 – Livability

Illinois Regional and Commercial Service airports are the largest portion of the total project cost estimate for Goal 2 at $111,394,505 or 41 percent, and $105,370,803 or 39 percent, respectively. Illinois National airports make total $44,358,422, or 16 percent, Illinois Local airports total $4,884,198, or two percent, and Illinois Basic airports total $3,836,382, or one percent of the total project cost estimate. Illinois Unclassified airports make up the remainder of the Goal 2 project cost estimate at $1,397,566, or one percent. Combined, Goal 2 projects total $271,241,876. Goal 2 cost estimates by airport classification are shown in **Figure 9.13**.

Figure 9.13. Goal 2 Cost Estimates by Airport Classification

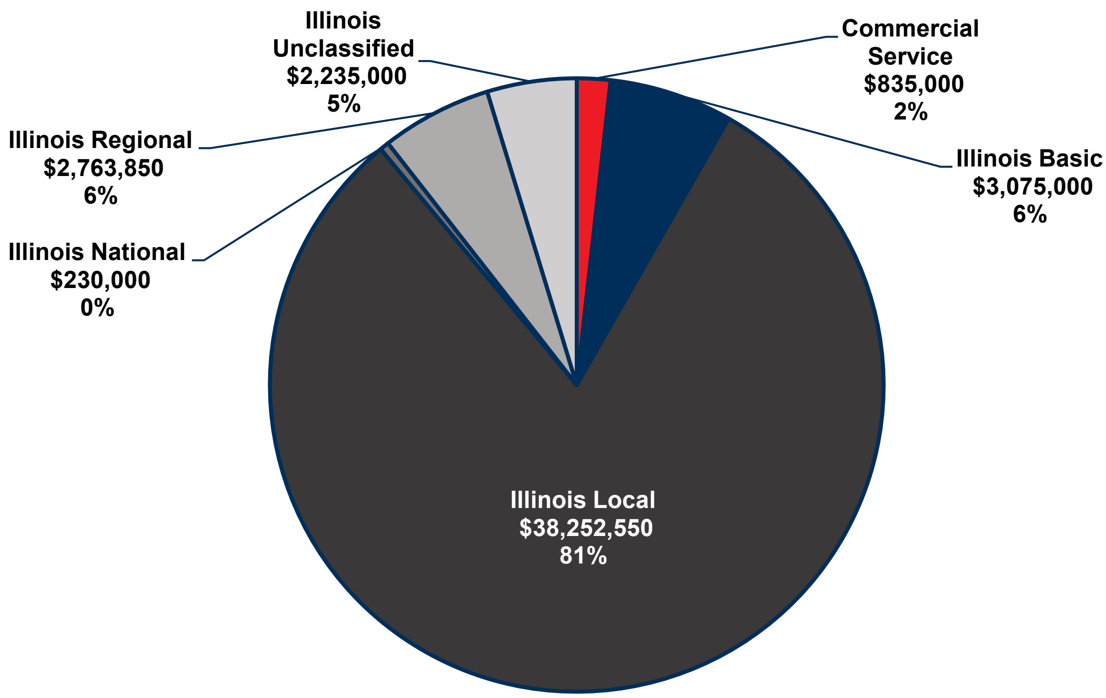


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.3.3. Goal 3 – Mobility

Goal 3 projects are identified for airports in all classifications. Illinois Local airports make up the largest portion of the total project cost estimate at $38,252,550 or 81 percent. Illinois Basic airports make total $3,075,000 or six percent, Illinois Regional airports total $2,763,850, or six percent, Illinois Unclassified airports total $2,235,000, or five percent, and Commercial Service airports total $835,000, or two percent of the total project cost estimate. Illinois National airports make up the remainder of the Goal 3 project cost estimate at $230,000, or less than one percent. Combined, Goal 3 projects total $47,391,400. Goal 3 cost estimates by airport classification are shown in **Figure 9.14**.

Figure 9.14. Goal 3 Cost Estimates by Airport Classification

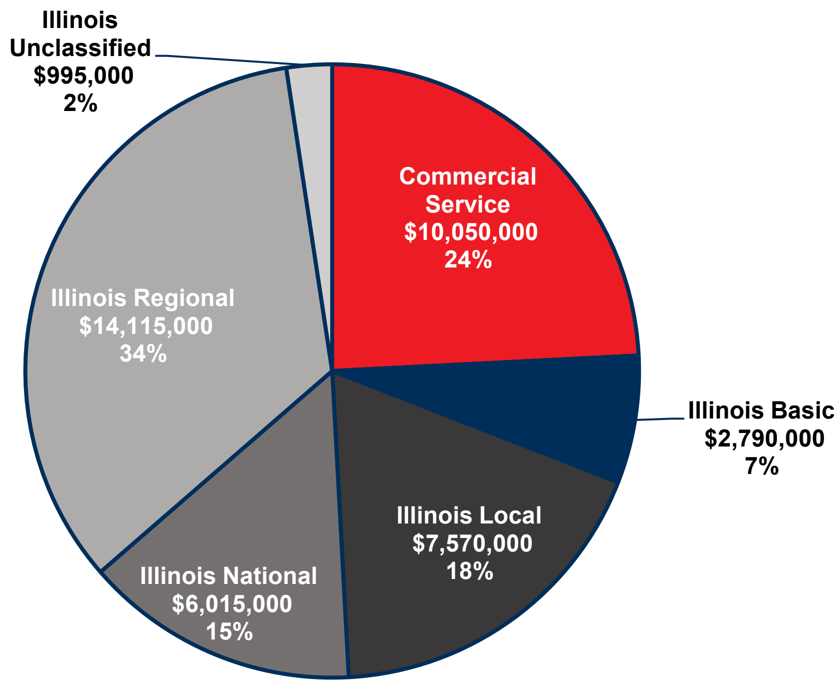


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.3.4. Goal 4 – Resiliency

Goal 4 projects are identified for airports in all classifications. Illinois Regional airports comprise the largest portion of the total project cost estimate at $14,115,000 or 34 percent. Commercial Service airports total $10,050,000, or 24 percent, Illinois Local airports total $7,570,000, or 18 percent, Illinois National airports total $6,015,000, or 15 percent, and Illinois Basic airports total $2,790,000, or seven percent of the total project cost estimate. Illinois Unclassified airports are the remainder of the Goal 4 project cost estimate at $995,000, or two percent. Combined, Goal 4 projects total $41,535,000. Goal 4 cost estimates by airport classification are shown in **Figure 9.15**.

Figure 9.15. Goal 4 Cost Estimates by Airport Classification

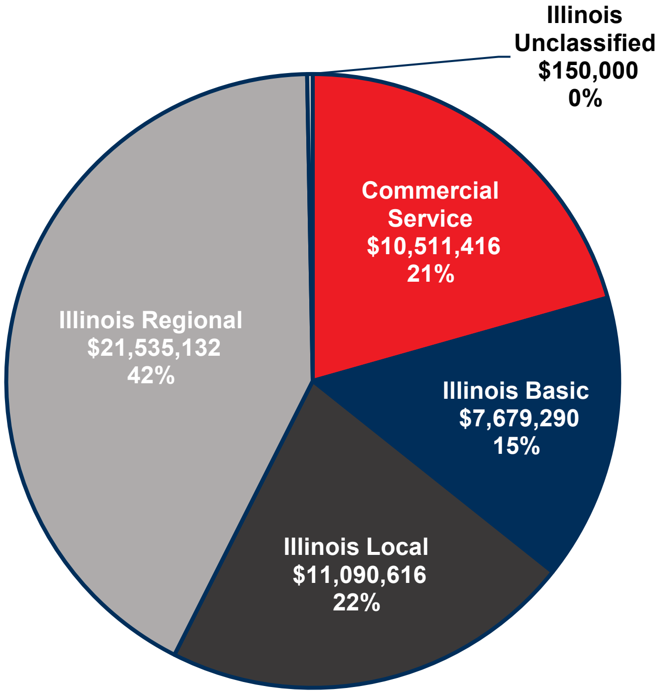


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.3.5. Goal 5 – Stewardship

Illinois Regional airports encompass the largest portion of the Goal 5 project cost estimate at $21,535,132, or 42 percent. Illinois Local airports projects cost estimates total $11,090,616, or 22 percent, Commercial Service airports total $10,511,416, or 21 percent, and Illinois Basic airports total $7,679,290, or 15 percent. Illinois Unclassified airports make up the remainder of the Goal 5 project cost estimate at $150,000, or less than one percent. Combined, Goal 5 projects total $50,966,454. Goal 5 cost estimates by airport classification are shown in **Figure 9.16.**

Figure 9.16. Goal 5 Cost Estimates by Airport Classification

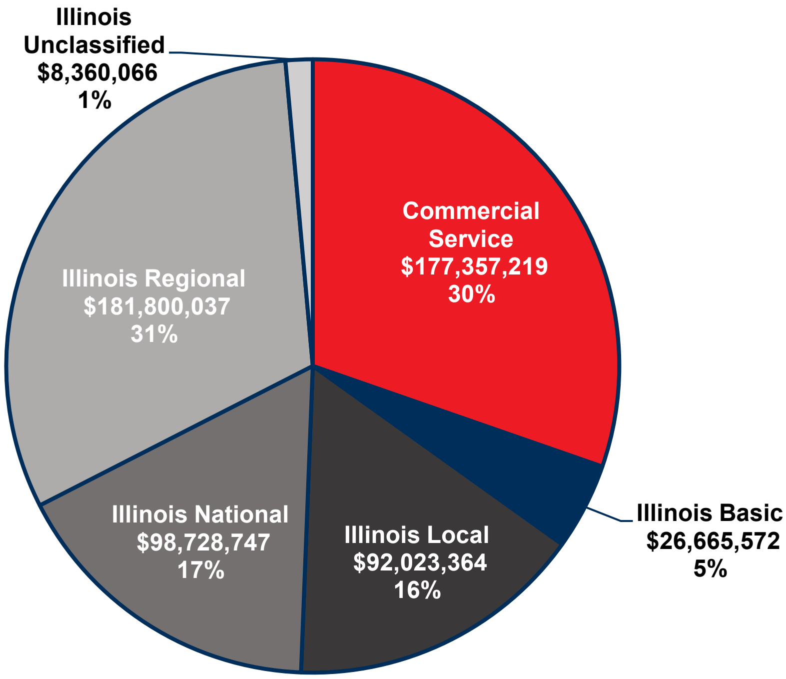


Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.3.3.6. Systemwide

Systemwide, out of a total cost estimate of $584,935,005, Illinois Regional airports and Commercial Service airports have the largest portion of total goal project cost estimates, respectively, at 31 percent or $181,800,037, and 30 percent, or $177,357,219. Illinois National airports have total project cost estimate of $98,728,747, or 17 percent, and Illinois Local airports have a total project cost estimate of $92,023,364, or 16 percent of the total goal project costs. Unclassified airports make up the remainder of the total goal project cost estimate with $8,360,066, or one percent. Systemwide cost estimates by airport classification are shown in **Figure 9.17**.

Figure 9.17. Total Goal Cost Estimates by Airport Classification



Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

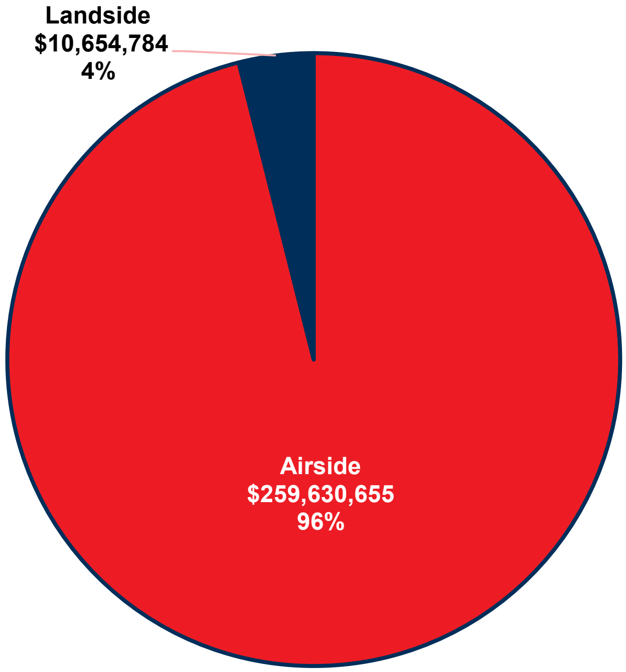
9.4. IASP Cost Estimates by Facility & Service Objective

Facility and Service Objectives (FSOs) identify recommended facilities and services that airports should offer to effectively perform their roles in the Illinois aviation system. FSOs serve as guidelines for Illinois' airports and are not considered to be mandates or requirements. FSOs were developed for each IASP airport classification to provide guidance on how airports can improve their abilities to provide recommended minimum infrastructure, facilities, and services to best support aviation activity in Illinois, as documented in **Chapter 3 – Existing and Future System Adequacy** and **Appendix A: Airport Report Cards**. FSOs are grouped into three categories including the following:

- **Airfield Facilities** – include runways, taxiways, weather reporting equipment, and lighting and are the first exposure pilots and passengers experience at an airport. The maintenance of airfield facilities is required to meet federal and state standards and to promote safe operations at airports
- **Landside Facilities** – include terminal buildings and amenities and are often where pilots and passengers spend most of their time at an airport. The maintenance of landside facilities is important to the efficient operation of airports and the larger state aviation system
- **Airport Services** – include fuel and deicing services at Illinois' airports. The maintenance and promotion of airport services is important to the efficient operation of airports and the larger state aviation system

FSO project cost estimates total $270,489,759. Airfield FSOs make up the largest portion of FSO project cost estimates at 96 percent, or $259,630,655. Landside FSO projects make up the remainder of the total FSO project cost estimate at $10,654,784, or four percent. Due to the removal of duplicate project types, there are no Airport Services FSO projects. The cost estimates for the projects identified for Airport Services FSO are accounted for in either the Goal or systemwide minimums project cost estimates. Total FSO cost estimates are presented in **Figure 9.18**.

Figure 9.18. Total FSO Cost Estimates



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

The following sections present cost estimates to achieve IASP FSOs by timeframe, project type, and by airport classification.

9.4.1. FSO Cost Estimates by Project Timeframe

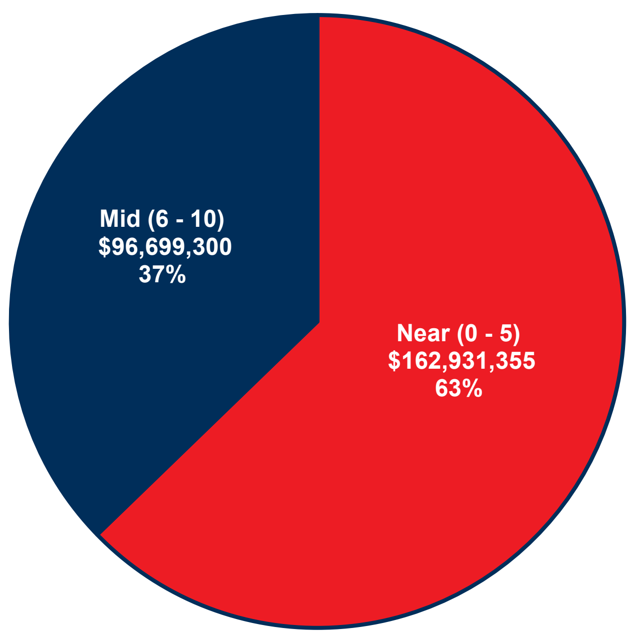
The total project cost estimates for the projects needed to meet the IASP FSOs are broken down by project timeframe. The project timeframes include the following:

- **Near-term** – 0 to 5 years
- **Mid-term** – 6 to 10 years
- **Long-term** – 11 to 20 years

9.4.1.1. Airfield FSO Cost Estimates

The total project cost for Airfield FSOs is $259,630,655. Airfield projects include projects related to runway and taxiway pavement, geometry, marking, lighting, and infrastructure that best support the type and volume of aviation activity associated with Illinois airport system classifications. Airfield FSO projects are classified as either near- or mid-term projects. Near-term projects make up the largest portion of Airfield project costs at 63 percent, or $162,931,355. Mid-term projects total $96,699,300, or 37 percent of Airfield FSO project costs. There are no long-term projects for Airfield FSOs. Airfield FSO cost estimates by timeframe are shown in **Figure 9.19**.

Figure 9.19. Airfield FSO Cost Estimates by Timeframe

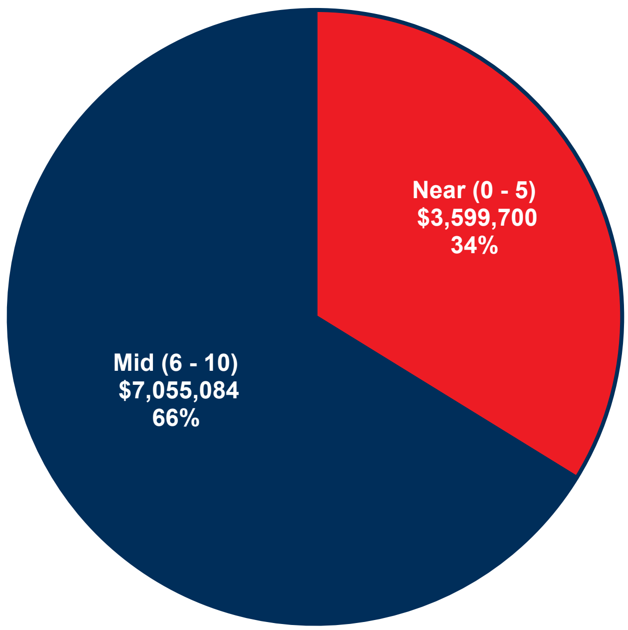


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.4.1.2. Landside FSO Cost Estimates

The total project cost for Landside FSOs is $10,654,784. Landside projects include projects related to terminal building and snow removal equipment (SRE) infrastructure and facilities that best support the type and volume of aviation activity associated with Illinois airport system classifications. Projects to meet landside FSOs are classified as either near- or mid-term projects. Mid-term projects make up the largest portion of Landside project costs at 66 percent, or $7,055,084. Near-term projects total $3,599,700 or 34 percent of Landside FSO project costs. There are no long-term projects for Landside FSOs. Landside FSO cost estimates by timeframe are shown in **Figure 9.20**.

Figure 9.20. Landside FSO Cost Estimates by Timeframe

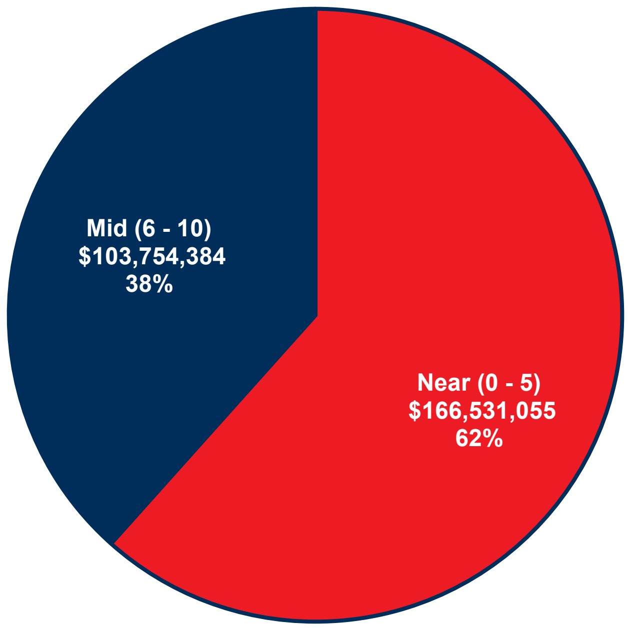


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.4.1.3. Total FSO Cost Estimates

The total statewide project cost estimate by FSO is $270,285,439. Near-term projects make up the largest portion of the total FSO project cost estimate at $166,531,055, or 62 percent. Mid-term projects make up the remainder of the total FSO project cost estimate at $103,754,384, or 38 percent. There are no long-term FSO projects. Total FSO cost estimates by timeframe are shown in **Figure 9.21**.

Figure 9.21. Total FSO Cost Estimates by Timeframe



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.4.2. FSO Cost Estimates by Project Type

The total project cost estimate for the projects needed to meet the IASP FSOs are also broken down by project type. The project types include the following:

- **Planning** – projects needed to develop planning documents and procedures at current system airports
- **Maintenance** – projects needed to maintain the existing system
- **Expansion** – new infrastructure or new program projects at current system airports

All FSO projects (i.e., 100 percent) are classified as Expansion projects. The Airfield FSO project cost estimate totals $259,630,655. The Landside project cost estimate totals $10,654,784.

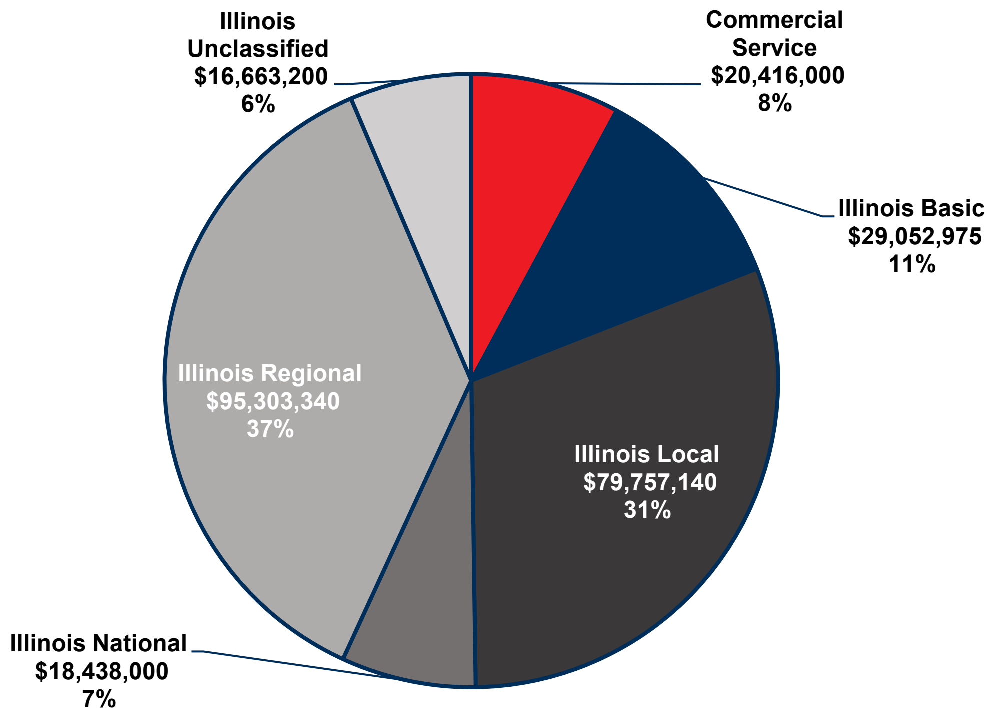
9.4.3. FSO Cost Estimates by Airport Classification

The total project cost estimate for the IASP FSOs is also broken down by airport classification. Airport classifications were developed in **Chapter 2 – Airport Classifications**. A description, as well as the FSO criteria, for each airport classification is provided in **Chapter 2 – Airport Classifications**.

9.4.3.1. Airfield FSO Cost Estimates

The Airfield FSO project cost estimate totals $259,630,655. Airfield FSO projects are identified for all airport classifications. Illinois Regional airports make up the largest portion of the project cost estimate at $95,303,340, or 37 percent. Illinois Local airport project cost estimates total $79,757,140, or 31 percent, Illinois Basic airports total $29,052,975, or 11 percent, Commercial Service airports total $20,416,000, or eight percent, and Illinois National airports total $18,438,000, or seven percent. Illinois Unclassified airports are the remainder of the Airfield project cost estimate at $16,663,200 or six percent. Airfield FSO cost estimates by airfield classification are shown in **Figure 9.22**.

Figure 9.22. Airfield FSO Cost Estimates by Airport Classification

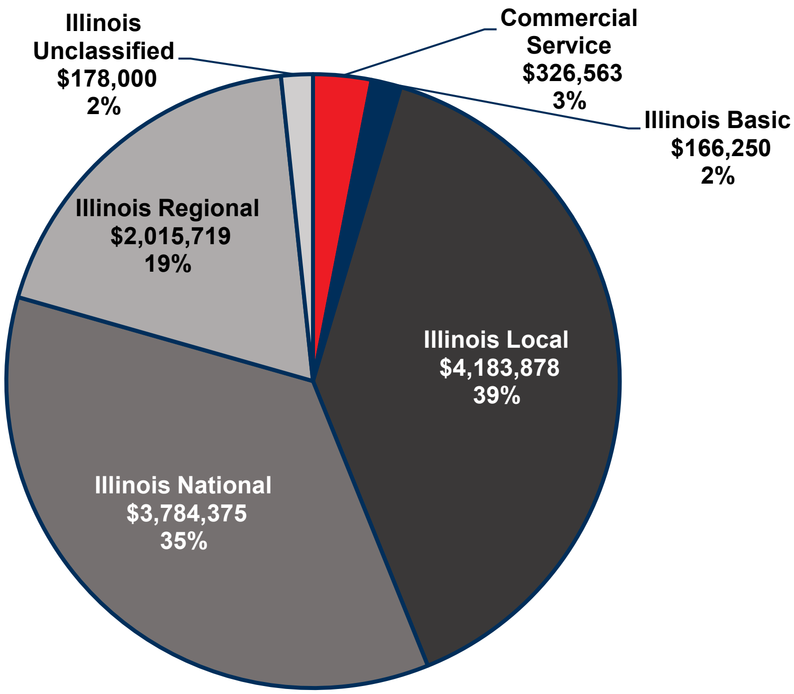


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.4.3.2. Landside FSO Cost Estimates

The total project cost for Landside FSOs is $10,654,784. Landside FSO projects are identified for all airport classifications. Illinois Local airports are the largest portion of the project cost estimate at $4,183,878, or 39 percent. Illinois National airport project cost estimates total $3,784,375, or 35 percent, Illinois Regional airports total $2,015,719, or 19 percent, Commercial Service airports total $326,563, or three percent, and Illinois Unclassified airports total $178,000, or two percent. Illinois Basic airports encompass the remainder of the Landside project cost estimate at $166,250 or two percent. Landside FSO cost estimates by airport classification are shown in **Figure 9.24**.

Figure 9.23. Landside FSO Cost Estimates by Airport Classification

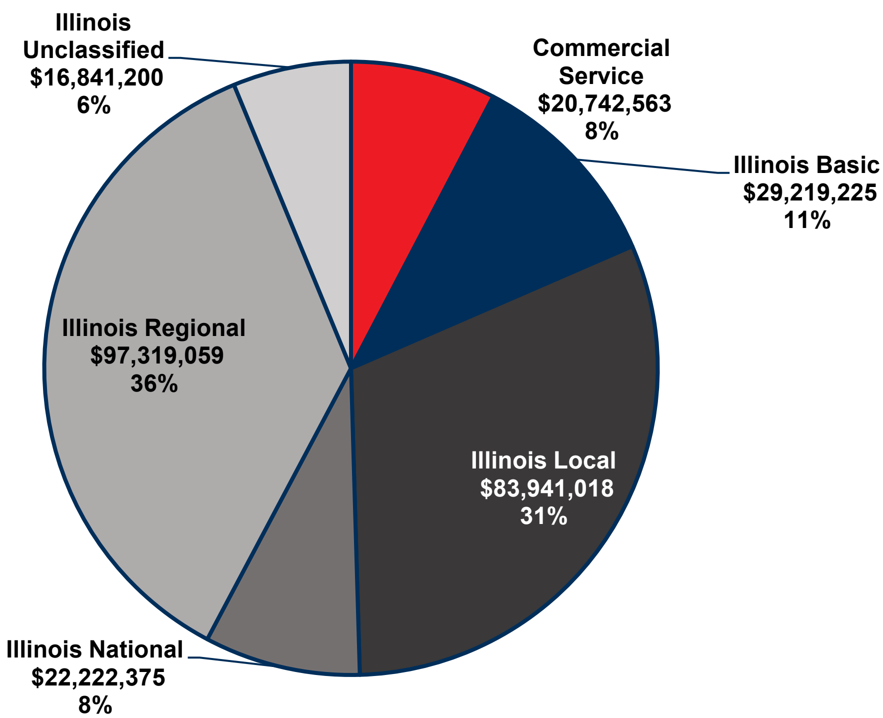


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.4.3.3. Total FSO Cost Estimates

Illinois Regional airports and Illinois Local airports have the largest portions of FSO project cost estimates at 36 percent, or $97,319,059, and 31 percent, or $83,941,018, respectively. Illinois Basic airports have a total project cost estimate of $29,219,225 or 11 percent. Illinois Commercial Service airports comprise eight percent of the total FSO project cost estimate at $20,742,563. Illinois National airports also make up eight percent of the total FSO project cost estimate at $22,222,375. Unclassified airports are the remainder of the total FSO project cost estimate with $16,841,200, or six percent. Total FSO cost estimates by airport classification are shown in **Figure 9.24**.

Figure 9.24. Total FSO Cost Estimates by Airport Classification



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.5. IASP Cost Estimates by Systemwide Minimums

In conjunction with FSOs, a set of minimum objectives for all airports, regardless of state classification, were developed and are referred to as systemwide minimum objectives, or systemwide minimums. The systemwide minimums represent the minimum level of airfield facilities, landside facilities, and airport services needed at all of the state's airports in order to maintain safety, as documented in **Chapter 3 – Existing and Future System Adequacy**. An overview of the systemwide minimum objectives is provided in **Table 9.3**.

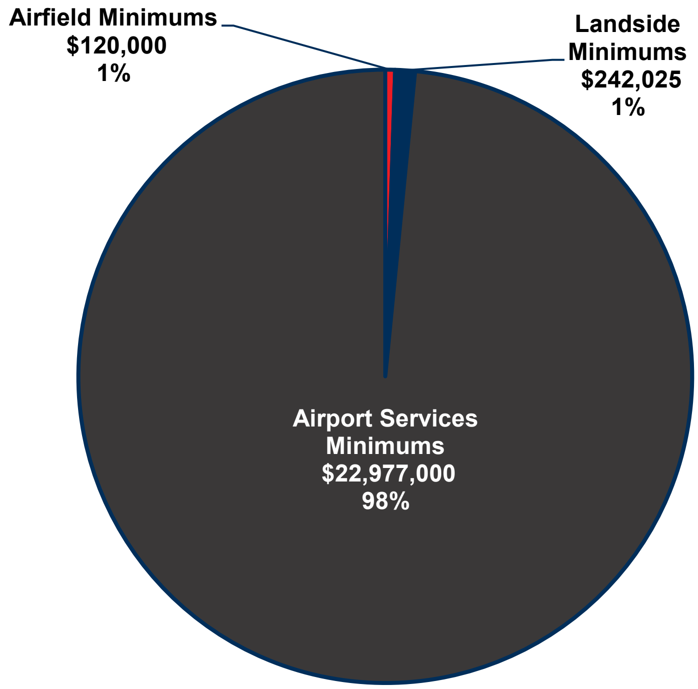
Table 9.3. IASP Systemwide Minimums

Objective Category	Systemwide Minimum
Airfield	
Lighted Wind Cone/Velocity Indicator	Yes
All Pavement PCI	60 or Greater
Landside Facilities	
Paved Entry Road	Yes
Segmented Circle Marker Where Non-standard Traffic is Used	Yes
Airport Services	
AvGas Fuel	Yes
Courtesy Car	Yes
Internet Access	Yes
Phone Access	Yes
After-Hours Food and Beverage	Yes
24-Hour (Sanitary) Restrooms	Yes
First-Aid Kit	Yes
Potable Water	Yes
Fire Protection	Yes
Access Control	Yes

Source: IDOT IASP, 2020

The total cost estimate for systemwide minimums is $23,339,025. Systemwide, airport services minimums are the largest portion of the project cost estimate at $22,977,000, or 98 percent. Landside minimums projects and airfield minimums projects comprise the remainder of the total project cost estimate at one percent each, or $242,025 and $120,000, respectively. Total systemwide minimums cost estimates are shown in **Figure 9.25.**

Figure 9.25. Total Systemwide Minimums Cost Estimates



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

The following sections present cost estimates to achieve IASP systemwide minimums by timeframe, project type, and by airport classification.

9.5.1. Systemwide Minimums Cost Estimates by Timeframe

The total project cost estimates for the projects needed to meet the IASP systemwide minimums are broken down by project timeframe. The project timeframes include the following:

- **Near-term** – 0 to 5 years
- **Mid-term** – 6 to 10 years
- **Long-term** –11 to 20 years

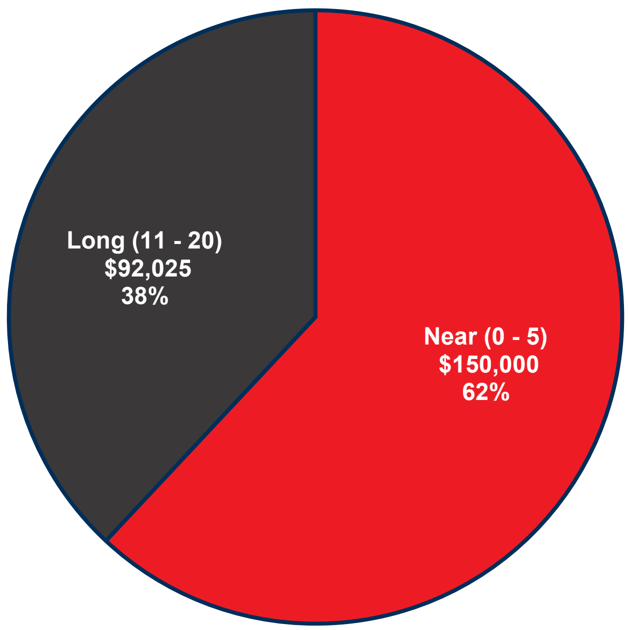
9.5.1.1. Systemwide Airfield Minimums

The systemwide airfield minimums project cost estimate totals $120,000. All systemwide airfield minimums projects have timeframes of near-term (0-5 years).

9.5.1.2. Systemwide Landside Minimums

The systemwide landside minimums project cost estimate totals $242,025. Systemwide landside minimums projects are classified as either near- or long-term projects. Near-term projects are the largest portion of systemwide landside minimums project costs at 62 percent, or $150,000. Long-term projects total $92,025 or 38 percent of the systemwide landside minimums project cost estimates. There are no mid-term systemwide landside minimums projects. Landside systemwide minimums cost estimates by timeframe are shown in **Figure 9.26**.

Figure 9.26. Systemwide Landside Minimums Cost Estimates by Timeframe



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

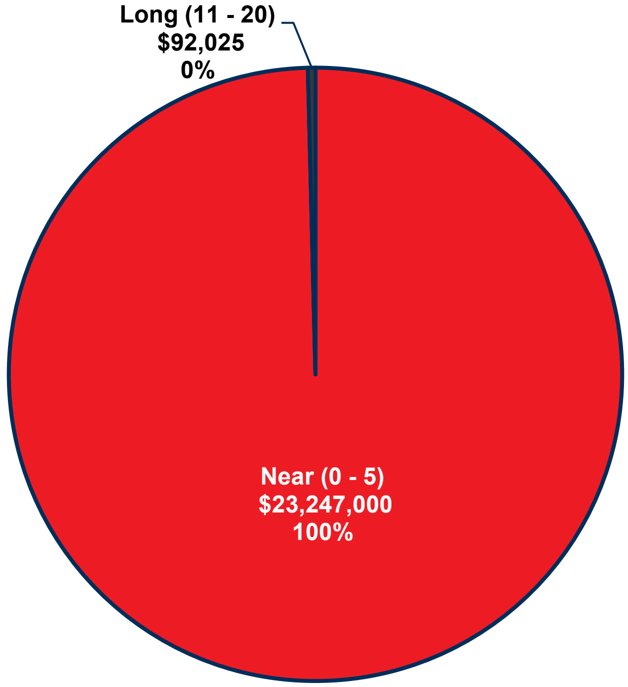
9.5.1.3. Systemwide Airport Services Minimums

The systemwide airport services minimums project cost estimate totals $22,977,000. All systemwide airport services minimums projects have timeframes of near-term (0-5 years).

9.5.1.4. Total Systemwide Minimums

The total project cost estimate for systemwide minimums is $23,339,025. Near-term projects make up the majority of the total systemwide minimums project cost estimate at $23,247,000, or almost 100 percent. Long-term projects make up the remainder of the total systemwide minimums project cost estimate at $92,025, or less than one percent. There are no mid-term systemwide minimums projects. Total systemwide minimums cost estimates by timeframe are shown in **Figure 9.27**.

Figure 9.27. Total Systemwide Minimums Cost Estimates by Timeframe



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.5.2. Systemwide Minimums Cost Estimates by Project Type

The total project cost estimate for the projects needed to meet the IASP systemwide minimums are also broken down by project type. The project types include the following:

- Planning – projects needed to develop planning documents and procedures at current system airports
- Maintenance – projects needed to maintain the existing system
- Expansion – new infrastructure or new program projects at current system airports

9.5.2.1. Systemwide Airfield Minimums

The systemwide airfield minimums project cost estimate totals $120,000. All systemwide airfield minimums projects are classified as expansion projects.

9.5.2.2. Systemwide Landside Minimums

The systemwide landside minimums project cost estimate totals $242,025. All systemwide landside minimums projects are classified as expansion projects.

9.5.2.3. Systemwide Airport Services Minimums

The systemwide airport services minimums project cost estimate totals $22,977,000. All systemwide airport services minimums projects are classified as expansion projects.

9.5.2.4. Total Systemwide Minimums

All (i.e., 100 percent) of the Systemwide Minimums projects are categorized as Expansion projects. The Airfield Minimums project cost estimate totals $120,000, Landside Minimums project cost estimate totals $242,025, and Airport Service Minimums project cost estimate totals $22,977,000.

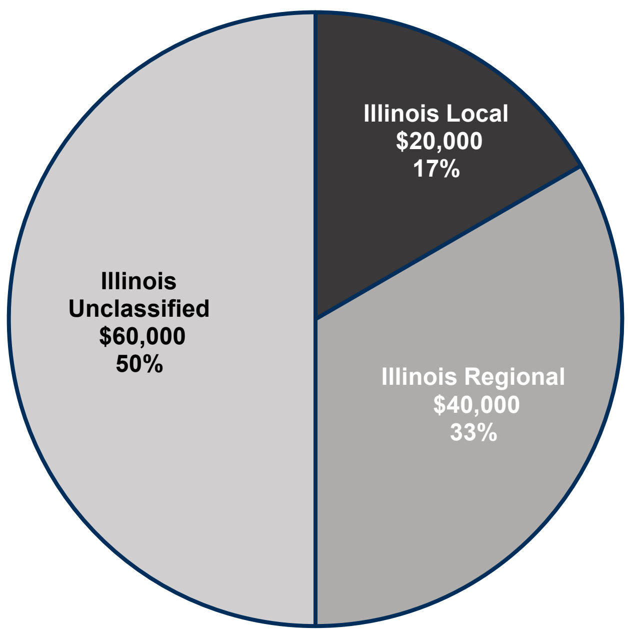
9.5.3. Systemwide Minimums Cost Estimates by Airport Classification

The total project cost estimate for the IASP Systemwide Minimums is also broken down by airport classification. Airport classifications were developed in **Chapter 2 – Airport Classification**.

9.5.3.1. Systemwide Airfield Minimums

The systemwide airfield minimums project cost estimate totals $120,000. Illinois Unclassified airports make up the largest portion of systemwide airfield minimums projects at $60,000, or 50 percent. Illinois Regional airports projects total $40,000, or 33 percent, and Illinois Local airport projects total $20,000, or 17 percent. Systemwide airfield minimums cost estimates by airport classification are shown in **Figure 9.28**.

Figure 9.28. Systemwide Airfield Minimums Cost Estimates by Airport Classification

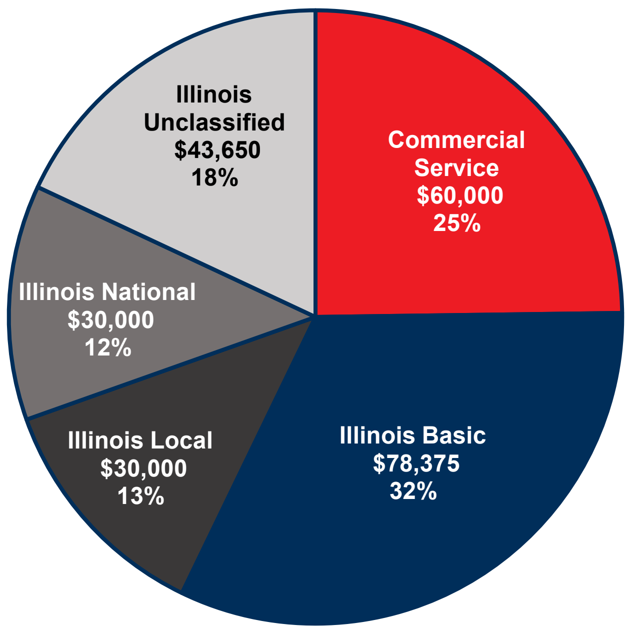


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.5.3.2. Systemwide Landside Minimums

The systemwide landside minimums project cost estimate totals $242,025. Illinois Basic airports make up the largest portion of systemwide landside minimums project cost estimates at $78,375, or 32 percent. Commercial Service airport project cost estimates total $60,000, or 25 percent, Illinois Unclassified airports total $43,650, or 18 percent, Illinois Local and Illinois National airports each total $30,000, or approximately 12 percent, of the total systemwide landside minimums project cost estimate. Systemwide landside minimums cost estimates are shown in **Figure 9.29**.

Figure 9.29. Systemwide Landside Minimums Cost Estimates by Airport Classification

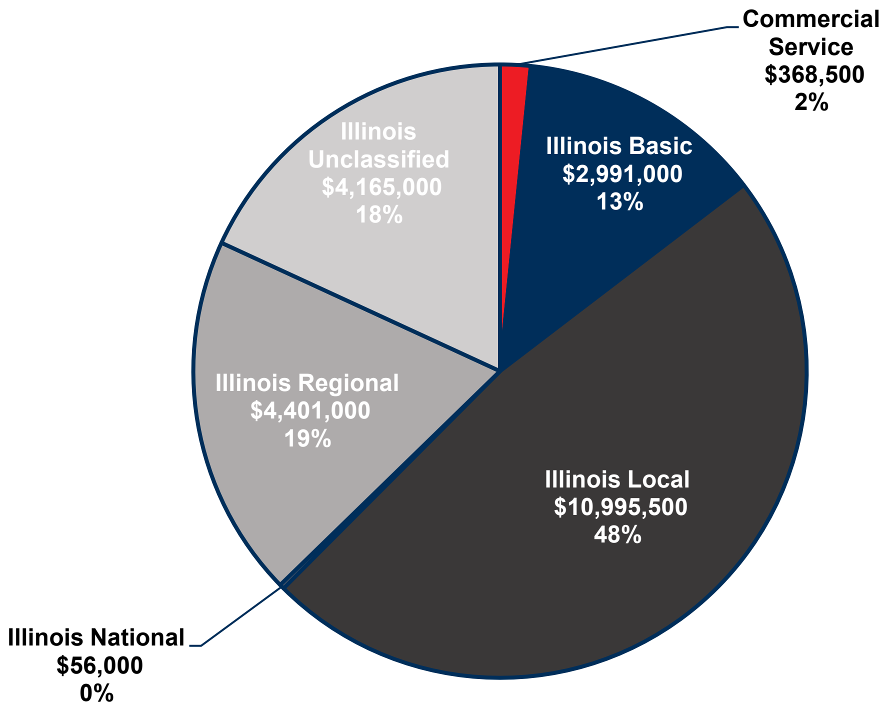


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.5.3.3. Systemwide Airport Services Minimums

The systemwide airport services minimums project cost estimate totals $22,977,000. Systemwide airport service minimums projects are identified for all airport classifications. Illinois Local airports comprise the largest portion of the project cost estimate at $10,995,500, or 48 percent. Illinois Regional airport project cost estimates total $4,401,000, or 19 percent, Illinois Unclassified airports total $4,165,000, or 18 percent, Illinois Basic airports total $2,991,000, or 13 percent, and Commercial Service airports total $368,500, or two percent. Illinois National airports are the remainder of the systemwide airport service minimums project cost estimate at $56,000, or less than one percent. Systemwide airport services minimums cost estimates by airport classification are shown in **Figure 9.30**.

Figure 9.30. Systemwide Airport Services Minimums Cost Estimates by Airport Classification

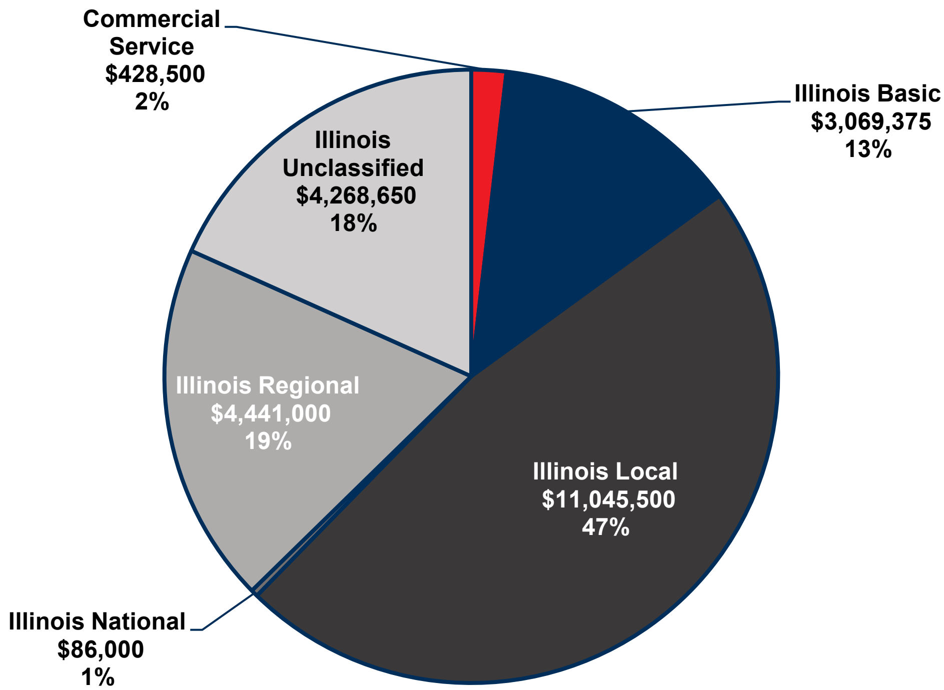


Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.5.3.4. Total Systemwide Minimums

Illinois Local airports have the largest portion of total systemwide minimums project cost estimates at 47 percent, or $11,045,500. Illinois Regional airports have a total project cost estimate of $4,441,000, or 19 percent. Illinois Unclassified airports have a total project cost estimate of $4,268,650, or 18 percent. Illinois Basic have a total project cost estimate of $3,069,375, or 13 percent. Commercial Service airports have total project cost estimate of $428,500, or two percent. Illinois National airports are the remainder of the total systemwide minimums project cost estimate with $86,000, or one percent of the total project cost estimate. Total systemwide minimums cost estimates by airport classification are shown in **Figure 9.31**.

Figure 9.31. Total Systemwide Minimums Cost Estimates by Airport Classification



Sources: IASP Inventory Form, 2020; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

9.6. Summary of Cost Estimates

The combined total project cost estimate to support the needs of the Illinois aviation system from 2019 to 2039 is over $11.1 billion. The total systemwide need, excluding ORD and MDW, is $878,559,469 as summarized in **Table 9.4**.

Table 9.4. Summary of Cost Estimates

Category	Cost Estimate
IASP Goals	$584,935,005
IASP Facility & Service Objectives	$270,285,439
IASP Systemwide Minimums	$23,339,025
IASP Subtotal	**$878,559,469**
O'Hare 21	$8,500,000,000
Chicago O'Hare International Airport 20 Year CIP[1]	$1,212,000,000
Chicago Midway International Airport 20 Year CIP[3]	$556,000,000
ORD and MDW Subtotal	**$10,268,000,000**
Total	**$11,146,559,469**
[1]O'Hare 21, https://www.ord21.com/home/Pages/default.aspx ***[2] Chicago O'Hare International Airport Capital Improvement Plan (2022 – 2026)*** ***[3]Chicago Midway International Airport Capital Improvement Plan (2022 – 2026)***	

Note: The summary of cost estimates does not include IDOT Aeronautics' programmed CIP. Sources: IASP Inventory Form, 2020; IDOT PCI Database, 2020; IDOT Airport Improvement Plan, 2022; O' Hare 21; Crawford, Murphy & Tilly, Inc, 2021; Hanson Professional Services, 2021; Kimley-Horn, 2021

Chapter 10. System Considerations

10.1. Introduction

The IASP provides IDOT with the necessary information to plan effectively and efficiently for the state's airport system. The IASP also provides a framework for achieving fiscally responsible development of the state's airport facilities over the next 20 years. The system plan was developed to serve as a guide and tool for making policy decisions for the Illinois aviation system.

The data gathered throughout the IASP process, in addition to other data sources, was used to develop strategize and prioritize projects, programs, and policies for the betterment of Illinois' aviation system. Previous chapters of the IASP evaluated existing system conditions and future performance targets to achieve systemwide goals. This chapter summarizes the results of the analysis that led to the development of project, program, and policy considerations.

10.2. Summary of IASP Findings

The IASP goals are the foundation of the aviation system planning process as they provide direction for desired results, serve as a starting point for developing performance-related metrics, and provide a framework for IASP considerations and recommendations. The IASP goals were developed to align with the five goals of the Illinois Long Range Transportation Plan (LRTP) of Economy, Livability, Mobility, Resiliency, and Stewardship to promote the Federal Aviation Administration's (FAA) desired emphasis on one larger, intermodal system and to follow a goal structure that parallels IDOT Aeronautics' 20-year vision of the aviation system in a monitorable and measurable way. The five goals of the IASP are the following:

Economy – Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.

Livability – Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.

Mobility – Support all modes of transportation to improve accessibility and safety by improving connections.

Resiliency – Proactively assess, plan, and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain and recover from extreme events and other disruptions.

Stewardship - Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.

Illinois' aviation system was evaluated against these goals and their associated performances measures (PMs). The systemwide findings of each goal and PM are summarized in the following sections. The detailed analysis of each goal and PM by airport classification is available in ***Chapter 3. Existing and Future System Adequacy.***

10.2.1. Goal #1 – Economy

The PMs associated with the Economy goal evaluated how airports are meeting FAA design standards, primary runway approach obstructions, and airport development planning. The Economy goal PMs are:

- Percent of airports that have completed master plan/ALP in the last 10 years (2010 or newer)
- Percent of airports with primary runway approaches negatively impacted by obstructions
- Percent of airports meeting FAA taxiway geometry standards, including direct access taxiways
- Percent of airports that meet FAA Runway Safety Area (RSA) standards
- Percent of population within a 30-minute drive of an airport with weather reporting capabilities

Statewide existing performance and future targets for the Economy Goal are summarized in **Table 10.1**.

Table 10.1 Economy Goal – Current and Future System Performance

Goal	Performance Measures	Current Systemwide Performance	Future System Performance
Economy – Improve Illinois' economy by providing transportation infrastructure that supports the efficient movement of people and goods.	Percent of airports that have completed master plan/ALP in the last 10 years (2010 or newer)	43%	100%
	Percent of airports with primary runway approaches negatively impacted by obstructions	24%	0%
	Percent of airports meeting FAA taxiway geometry standards including direct access taxiways	22%	100%
	Percent of airports that meet FAA Runway Safety Area (RSA) standards	82%	100%
	Percent of population within a 30-minute drive of an airport with weather reporting capabilities	76%	88%

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

10.2.2. Goal #2 – Livability

The PMs associated with the Livability goal help to inform how the system is currently enhancing quality of life by evaluating land use controls and planning, and environmental factors, such as drainage analyses, wildlife management. The Livability goal PMs are:

- Percent of airports that have adopted appropriate height/land use controls
- Percent of airports that have fully controlled Runway Protection Zones (RPZs) (fee simple or avigation easement)
- Percent of airports with an adopted wildlife management plan
- Percent of airports with up-to-date drainage analysis and storm water pollution plans

Statewide existing performance and future targets for the Livability Goal are summarized in **Table 10.2**. It should be noted that the future performance target for the percent of airports with an adopted wildlife management plan is set to 'As Needed' since wildlife management plans are only required for Part 139 airports. The future performance target also considers the non-Part 139 airports who should maintain their existing wildlife management plan based on the results of the preceding wildlife hazard assessment. IDOT Aeronautics recognizes a full wildlife management plan is a robust evaluation that is not needed for most General Aviation (GA) airports. For additional information on the future performance target for wildlife management plans, refer to **Chapter 3 – Existing and Future System Performance**.

Table 10.2. Livability Goal – Current and Future System Performance

Goal	Performance Measure	Current Systemwide Performance	Future System Performance
Livability – Enhance the quality of life across the state by ensuring that transportation investments advance local goals, provide multimodal options, and preserve the environment.	Percent of airports that have adopted appropriate height/land use controls	61%	100%
	Percent of airports that have fully controlled RPZs (fee simple or avigation easement)	19%	100%
	Percent of airports with an adopted wildlife management plan	42%	As Needed
	Percent of airports with up-to-date drainage analysis	37%	100%
	Percent of airports with up-to-date storm water pollution plans	64%	100%

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

10.2.3. Goal #3 – Mobility

The PMs associated with this goal help to inform how the aviation system is currently enhancing mobility, as well as understanding the system's ability to manage future mobility changes. The Mobility Goal PMs are:

- Percent of population within a 30-minute drive time of a system airport meeting business user needs (5,000' runway, Jet A, Instrument Approach Procedure [IAP], ground transportation)
- Percent of system airports that have courtesy cars available
- Percent of airports with 24-hour fuel facilities
- Percent of airports with 10,000 or greater gallon fuel storage
- Percent of airports that have steel, underground storage tanks

Statewide existing performance and future targets for the Mobility Goal are summarized in **Table 10.3**. It should be noted that future system performance for the percent of airports that have steel, underground storage tanks was set at zero percent, ideally all IASP airports should not have this feature. Underground fuel storage tanks were once a popular option for fuel storage, however, there have been recent efforts to decommission these tanks due to environmental concerns. Steel underground fuel tanks were commonly installed at airports; however, it is now common and preferred that above-ground fiberglass tanks are used for fuel storage. Concerns related to environmental impacts due to storing fuel underground inside steel tanks was one of the leading factors that contributed to this practice becoming antiquated. Efforts have been made to remove many of the steel underground storage tanks.

Table 10.3. Mobility Goal – Current and Future System Performance

Goal	Performance Measure	Current Systemwide Performance	Future System Performance
Mobility – Support all modes of transportation to improve accessibility and safety by improving connections.	Percent of population within a 30-minute drive time of a system airport meeting business user needs (5,000' runway, Jet A, Instrument Approach Procedure [IAP], ground transportation)	47%	75%
	Percent of system airports that have courtesy cars available	84%	98%
	Percent of airports with 24-hour fuel facilities	43%	93%
	Percent of airports with 10,000 or greater gallon fuel storage	81%	100%
	Percent of airports that have steel, underground storage tanks	25%	0%

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

10.2.4. Goal #4 – Resiliency

The PMs associated with this goal inform how the system is supporting efforts to develop a sustainable and resilient aviation system that has the capacity to serve current and future needs, and be functional during inclement weather, natural disasters, and other unforeseen challenges. The Resiliency Goal PMs are:

- Percent of airports that have adopted and maintain an emergency response plan
- Percent of airports with emergency response equipment or mutual aid agreement including in-kind with sponsor
- Percent of airports with dedicated Snow Removal Equipment (SRE), a storage building for the SRE, or mutual aid agreement – including in-kind from sponsor for snow removal
- Percent of airports with up-to-date spill prevention plans

Statewide existing performance and future targets for the Resiliency Goal are summarized in **Table 10.4.**

Table 10.4. Resiliency Goal – Current and Future System Performance

Goal	Performance Measure	Current Systemwide Performance	Future System Performance
Resiliency – Proactively assess, plan, and invest in the state's transportation system to ensure that our infrastructure is prepared to sustain and recover from extreme events and other disruptions.	Percent of airports that have adopted and maintain an emergency response plan	58%	100%
	Percent of airports with emergency response equipment or mutual aid agreement, including in-kind with sponsor	47%	100%
	Percent of airports with dedicated Snow Removal Equipment (SRE), a storage building for the SRE, or mutual aid agreement,– including in-kind from sponsor for snow removal	58%	100%
	Percent of airports with up-to-date spill prevention plans	41%	93%

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

10.2.5. Goal #5 – Stewardship

The PMs associated with this goal evaluate various ways airports support business development and maintain critical infrastructure. The Stewardship Goal PMs are:

- Percent of airports with a primary runway PCI of 70 or greater
- Percent of airports with a primary taxiway PCI of 70 or greater
- Percent of airports with strategic plans or business plans
- Percent of airports with current rules, regulations, and minimum standards

Statewide existing performance and future targets for the Stewardship goal are summarized in **Table 10.5.**

It should be noted that the future performance target for percent of airports with strategic plans or business plans was set to 'As Needed' instead of a percentage like other PMs under the Stewardship goal category. After collaboration with IDOT Aeronautics and the Technical Advisory Committee (TAC), strategic and/or business plans should be developed as airports deem necessary. IDOT Aeronautics recognizes the value of these plans but does not have a standard or federal policy to mandate them at the airport or airport system level.

Table 10.5. Stewardship Goal – Current and Future System Performance

Goal	Performance Measure	Current Systemwide Performance	Future System Performance
Stewardship – Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system.	Percent of airports with a primary runway PCI of 70 or greater	61%	98%
	Percent of airports with a primary taxiway PCI of 70 or greater	58%	98%
	Percent of airports with strategic plans or business plans	19%	As Needed
	Percent of airports with current rules, regulations, and minimum standards	58%	100%

Sources: IASP Inventory Form, 2020; Kimley-Horn, 2021

10.3. IASP Project Considerations

The IASP project considerations include projects and statewide studies aimed to address system inadequacies, maintain the current system, and enhance the system based on emerging industry trends. A summary of needs and strategies for the following IASP project considerations is provided in this section.

- Aircraft Operational Counts at Non-Towered Airports
- Airport Pavement Management System (APMS)
- General Aviation Runway Safety Area (RSA) Inventory
- Heliport and Vertiport System Plan
- IDOT Aeronautics Procedure Manual
- Recurring Economic Impact Analysis (EIA)
- Runway Protection Zone and Obstruction Analysis
- Advanced Air Mobility Integration
- State Aviation System Plan Update
- Aircraft and Airport Electrification Study
- Statewide Emergency Management Plan
- Statewide Air Cargo and Freight Study
- IDOT Aeronautics Strategic Plan
- Aircraft Operational Counts at Non-Towered Airports

10.3.1. Aircraft Operational Counts at Non-Towered Airports

Aircraft operational count data is used throughout various aspects of aviation system and airport planning. The purpose of aircraft operational counts is to understand the type and frequency of aircraft operations at a given airport. These data are used in airport master planning and aviation system planning, to better inform designs related to infrastructure needs at airports. Typically, aircraft operational count data is tracked and record by air traffic controllers at airports with air traffic control towers (ATCT), however for non-towered airports, aircraft operational counts are challenging to confirm.

At non-towered airports, aircraft operational counts are often estimated and self-reported by the airports. The lack of a standardized system for counting, tracking, and recording aircraft operational data at non-towered airports can impact planning and needs determination efforts at individual airports and throughout the larger aviation system.

Technologies and programs at non-towered airports can supplement aircraft operational counts that are typically collected by air traffic controllers. There are numerous aircraft operations counting technologies that are generally categorized as follows:

- **Cooperative systems** – utilizes sensors that rely on information provided by an aircraft and/or pilot to detect and track aircraft actively or passively
- **Non-cooperative systems** – utilizes sensors that do not rely on information provided by an aircraft and/or pilot to detect and track aircraft actively or passively
- **Hybrid systems** – uses a combination of cooperative and non-cooperative systems to detect and track aircraft actively or passively

The implementation, maintenance, and operational requirements vary for each type of technology noted above. There are only 18 airports with ATCTs in the IASP system. Strategies IDOT could consider for counting, tracking, and recording operations at the system's non-towered airports include the following:

- **Cooperative systems**
  - General Audio Recording Device (G.A.R.D. ADS-B)
  - Virtower Airport Operations System
  - Airport Operations Counting and Analysis System (ADS-B)
- **Non-cooperative systems**
  - 4SIGHT M
  - Airport Operations Counting and Analysis System (RADAR)
  - EchoGuard 3D Surveillance RADAR
- **Hybrid system**
  - Airport Operations Counting and Analysis System (ADSB & RADAR)

10.3.2. Airport Pavement Management System

Airfield pavement is one of the most vital assets at an airport and is often an airport's most significant investment. Pavement must be kept in a condition that allows for safe and efficient aircraft operations. Pavement conditions are expressed and monitored in terms of the Pavement Condition Index (PCI). PCIs range from 100 (perfect/new conditions) to 0 (complete pavement failure). Acceptable pavement conditions vary depending on facility type (e.g., runways, taxiways, aprons), airport type and size, and aircraft operations and aircraft size. It is important to monitor airfield pavement PCI because its condition will inform project recommendations and prioritization. Minor pavement deterioration may be resolved with varying maintenance projects, whereas significant deterioration may require a complete pavement reconstruction project. It is more cost effective to stay up to date on pavement maintenance over time than it is to let the pavement deteriorate requiring a full reconstruction. Pavement management is a requirement of FAA grant assurances. Additionally, landing facilities inspections are required by the state of Illinois in accordance with FAA standards and requirements.

The IASP evaluated Illinois airport's pavement conditions under the following Goal 5 PMs:

- Percent of airports with a primary runway PCI of 70 or greater
- Percent of airports with a primary taxiway PCI of 70 or greater

The results of the PM evaluations concluded that 61 percent of the state's airports meet the primary runway PCI PM and 58 percent of the state's airports meet the primary taxiway PCI PM. The future performance target for both PMs is 100 percent of all paved airports.

IDOT should work with IASP airports whose runway and taxiway PCI values are less than 70 to improve identified system deficiencies. IDOT could implement an Airport Pavement Management System (APMS) to identify system deficiencies and to monitor improvements (i.e., maintenance, rehabilitation) of pavement conditions statewide on a regular basis. The APMS can also be used to coordination recurring required pavement inspections and track results and findings of the inspections in a centralized database. Pavement conditions can be inventoried, inspected, maintained, or rehabilitated through the APMS and it can be used to prioritize pavement projects at the state's airports. Monitoring and improving pavement conditions across the state will contribute to the resiliency of airside facilities, as well as support operations and increase economic development at system airports.

10.3.3. General Aviation Runway Safety Area Inventory

Runway Safety Areas are buffer areas surrounding a runway designed to protect aircraft, people, and property in the event of a take-off or landing procedure incident, such as an aircraft overrunning or overshooting the runway. RSAs should be clear of any naturally occurring (e.g., trees, shrubbery, water) or man-made obstructions (e.g., buildings, fences, roadways). RSA dimensions and sizes are determined by the FAA's Runway Design Code (RDC) found in Advisory Circular (AC) 150/5300-13A Airport Design.

The IASP evaluated Illinois airport's RSAs under the Goal 1 PM: *Percent of Airports Meeting FAA RSA Standards*. Systemwide, 80 percent of airports met the PM as they were observed via desktop analysis as clear from obstructions, including structures, roadways, water bodies, and trees or tall shrubbery. The future performance target for this PM was set at 100 percent for all IASP airports as RSA standards have become a heightened point of emphasis at the FAA.

IDOT should work with IASP airports with existing RSA issues. System deficiencies could be identified through a statewide, on-site assessment and inventory at all system airports. Once the inventory has been developed, IDOT could develop and implement a plan to address RSA noncompliance.

10.3.4. Heliport and Vertiport System Plan

IDOT Aeronautics is responsible for the regulation and supervision of aviation within the state, including airports and other air navigation facilities, such as heliports and vertiports. Both public-use heliports and vertiports are operational in Illinois. These facilities are recognized and obligated by the FAA and include facilities identified as hospital heliports, helistops, heliports, vertiports, and vertistops. Although heliports are a component of Illinois' aviation system they should be planned for and evaluated separately from airports due to their unique operations and operational needs. Heliports differ from airports in numerous ways, including heliport classifications, specific uses and types of operations, design standards and requirements, user needs, and funding needs and opportunities.

Continuous planning for heliports separately from system airports allows for the evaluation and monitoring of the state's heliport system changes occuring in the aviation industry, such as Advanced Air Mobility (AAM) Integration. AAM is an emerging and relevant topic that will likely impact Illinois' system as they are a prime candidate to utilize existing heliport and vertiport infrastructure. AAM is an aeronautical system that facilitates on-demand, automated and piloted passenger, and cargo air transportation services at low altitudes in urban environments. The integration of AAM into the current aviation system will require considerations related to changing aircraft and aircraft technology, operational framework, airspace access, infrastructure retrofitting and development, and policy. The FAA and NASA have recognized the importance of planning for AAM now related to five areas of activity: aircraft, airspace, operations, infrastructure, and community. AAM integration focuses on the shift from traditional air traffic operations management to future passenger and cargo air transportation service in urban and suburban areas. The transition to AAM will require the use of existing heliport and vertiports infrastructure as urban and suburban environments are retrofitted for AAM.

IDOT Aeronautics should consider investing in the development of a Heliport and Vertiport System Plan, to include AAM, as a companion piece to the IASP. A heliport- and vertiport-specific system plan will help inform IDOT Aeronautics of the demand, requirements, and needs of the state's heliport system over the next 20 years. Additionally, a Heliport and Vertiport System Plan could assist in IDOT Aeronautics in their effort to continuously monitor system performance, especially as the industry shifts in reaction to technological advances.

10.3.5. IDOT Aeronautics Procedure Manual

Standard operating procedures (SOPs) allow for consistent implementation of both internal and external policies and procedures. A best practice for documenting, sharing, and regularly reviewing and updating SOPs is through the development of an IDOT Aeronautics Procedures Manual. A procedures manual can serve as a resource for tracking and communicating formalized and approved internal IDOT Aeronautics policies and procedures. The manual can also serve as a source for external guidance for airport sponsors and airport managers. The manual can also serve as an educational tool and consolidated source for sponsor and managers to reference IDOT Aeronautics SOPs and policies such as those related to funding and project prioritization.

IDOT Aeronautics should consider the development of an "IDOT Aeronautics Procedures Manual" to formalize internal policies and procedures and to communicate such policies and procedures to external airport stakeholders.

10.3.6. State Aviation System Plan Update

The primary purpose of a system plan is to study the performance and interaction of an aviation system to identify airport needs. The plan guides decisions and educates those who oversee the system, including local, state, and federal policy makers. The last system plan completed for Illinois' aviation system was published in 1994. Since then, IDOT Aeronautics initiated the 2019 IASP which evaluated the Illinois airport system's existing conditions and needs over a 20-year planning horizon. State aviation system plans are typically updated every decade to manage changes and update priorities based on an ever-changing system. IDOT Aeronautics should consider updating the 2019 IASP in the 2029 timeframe.

10.3.7. Recurring Economic Impact Analysis

An aviation economic impact study quantifies the economic impacts of on-airport businesses, activities, and other multiplier impacts of airports. Economic impact studies help communicate the benefits of airports, both qualitative and quantitative, and validate the continued public investment in an airport system. IDOT Aeronautics published an economic impact study in 2012 and again in 2019 as a companion piece to the IASP resulting in a statewide impact in 2019 of $95.5 billion. Due to the ever-changing landscape of the aviation industry, these studies are typically updated every three to five years. IDOT Aeronautics should consider initiating the update of the 2019 study in the 2024-2025 timeframe.

10.3.8. Runway Protection Zones and Obstruction Analysis

Runway Protection Zones and Obstructions were evaluated at IASP airports. Full control of RPZs was given a target of 100 percent and existing performance was identified at 19 percent. Primary runway approaches negatively impacted by obstructions was not given a target; however, existing performance was identified at 24 percent. The following subsections detail the potential statewide actions that could be taken to initiate the improvement of both RPZ ownership and obstruction mitigation and or removal.

10.3.8.1. Runway Protection Zones

IDOT Aeronautics could consider undertaking a detailed statewide land use/RPZ study to examine the ownership and level of control for Illinois' airports' RPZs. Because RPZ control falls under the general land use umbrella, the state could use this opportunity to also inventory airport conditions related to land use compatibility around airports. The FAA is finalizing a new advisory circular (AC) dedicated to airport land use compatibility (FAA AC 150/5190-4B, *Airport Land Use and Compatibility Planning).* Additionally, the Airport Cooperative Research Program (ACRP) Report 27: Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources and Volume 2: Land Use Survey and Case Study Summaries are available and should be referred to during the planning and development of a future RPZ statewide planning effort.

10.3.8.2. Obstructions

Based on a high-level, desktop analysis, various obstructions were identified within the approach path of primary runways at IASP airports. While it is assumed that many of these obstructions are vegetation penetrations and do not reduce the safety or viability of the airspace, IDOT Aeronautics could consider a statewide plan to identify and implement mitigation strategies to limit obstructions within the approach path of an IASP runway. The data collection effort for this study could be incorporated with the data collection effort of the statewide RPZ study.

10.3.9. Aircraft and Airport Electrification Study

Like AAM, aircraft electrification is an emerging trend in the aviation industry that has the potential to disrupt the current system through changes in aircraft and aircraft technology, operational framework, airspace access, infrastructure retrofitting and development, and policy. The electrification of aircraft will take place as battery-electric and hybrid-electric aircraft become more prevalent in the aviation industry. Electrification will reduce carbon emissions and increase energy efficiency throughout the industry. Electrification at airports is challenging as it will require the retrofitting of existing airport infrastructure, as well as the development of new infrastructure to accommodate new technology and aircraft. Electrification is fast-moving and will require forward thinking solutions to meet the infrastructure demands of the future. To do this, IDOT Aeronautics should consider conducting an airport electrification feasibility study to understand how to support electric aircraft in the future. Given the speed at which aircraft electrification is being realized, IDOT Aeronautics should consider commissioning a study of this kind in the near-term.

10.3.10. Statewide Emergency Management Plan

Statewide emergency managements plans address statewide natural, technological, and man-made hazards and threats and provide guidance for responding to and managing emergency preparations and response efforts when larger scale emergencies and disasters strike. In Illinois, the agency responsible for emergency management is the Illinois Emergency Management Agency (IEMA). IMEA's primary responsibility is to coordinate Illinois' disaster mitigation, preparedness, response, and recovery programs and activities. IEMA also functions as the State Emergency Response Commission and maintains a 24-hour State Emergency Operations Center (SEOC). SEOC is the state's lead in emergency response and operations to notify, activate, deploy, and employ state resources in response to any threat or act of terrorism. Illinois' airports are key components in state emergency readiness and response efforts. IASP airports support numerous emergency response efforts within and beyond the state's borders, such as search and rescue, firefighting and law enforcement, and natural disaster relief efforts. IDOT Aeronautics should work with other state departments, agencies, officials, and local governments, under the guidance of the IEMA, to develop a statewide emergency management plan that is consistent with and supports the Illinois Emergency Operations Plan.

10.3.11. Statewide Air Cargo and Freight Study

Illinois' aviation system is a vital resource to the state's economy as Illinois' airports facilitate the efficient and safe movement of people and goods across the country. Illinois' airports support air cargo and freight operations and demand at various levels of capacity. An airport's ability and capacity to handle air cargo and freight is limited to their airfield and warehousing infrastructure. A Statewide Air Cargo and Freight Study can be used to identify major global, national, and local air cargo and freight industry trends and determine air cargo and freight capacity and demand at Illinois airports. Air cargo and freight trends, such as a global shift to e-commerce, influence freight and air cargo demand. The 2019 EIA found that Illinois' airport's economic impact, specifically related to supporting air cargo, is $35.9 billion. Given this, IDOT Aeronautics could consider the continued investment of their airports to support the air cargo industry by initiating a Statewide Air Cargo and Freight Study. This study could aim to understand existing air cargo and freight trends, demands, and capacities, as well as plan for future shifts to support air cargo and freight operations in the state.

10.3.12. IDOT Aeronautics Strategic Plan

Strategic plans provide an organized structure for the communication of an organization's vision and mission statement, goals, objectives, and actions. Strategic plans outline the direction of an organization and are important planning and management tools. The development of a Strategic Plan requires a strategic planning process that involves the formation of a planning team, the gathering of division background information, the completion of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, and continuous strategic planning team meetings to develop goals, objectives, and actions. IDOT Aeronautics should consider the development of a strategic plan in the near term.

10.4. Policy and Program Considerations

Policy and program considerations are provided in this section to address identified system inadequacies, as well as support the current aviation system, through funding and procedural mechanisms at the state and IDOT office level. The policy and program considerations presented in this section are intended to be consistent with the IASP goals. The considerations are based on current Illinois and IDOT policies, as well as on current peer state policies and procedures. Peer states include those with similarities to Illinois and Illinois' aviation system. A summary of needs and strategies for the following IASP policy and program considerations presented in this section include:

- Dedicated Aviation Funding
- Environmental Justice
- IDOT Aeronautics Staffing
- Web-Based Management Programs

The policy considerations presented in this section are based on current Illinois laws, policies, and procedures. The considerations are responses to the aviation issues identified in the IASP that have high potentials to impact the state's aviation system over the 20-year planning horizon. A summary of the priority issues that may affect Illinois airports throughout the planning horizon is presented in **Table 10.6** Additional details on each aviation issue are available in **Chapter 4. Aviation System Issues.**

Table 10.6. Summary of Key Illinois Aviation Issues

Issue	Overview
Aging Infrastructure	Infrastructure exceeding its useful life or with deferred maintenance needs can affect airports' operational efficiency and ultimately cost more when major reconstruction or replacement become warranted. Poorly maintained or outdated infrastructure may result in some passenger and aircraft owners/pilots choosing to use alternative airports.
Aviation Workforce Shortage	Demand for commercial service and some sectors of GA continues to rise, yet the number of aviation professionals is on the decline. The aviation workforce shortage not only applies to pilots, but also mechanics, flight instructors, and other industry staff.
COVID-19	The arrival of COVID-19 at the global level in early spring 2020 initiated a virtual shutdown of commercial passenger traffic almost overnight. While domestic leisure travelers have now begun to return to the skies, many companies have prohibited employees from traveling for business for the foreseeable future. International passenger travel remains highly impacted as countries close their borders to slow the spread of the virus. GA activity has been more variably affected, with impacts differing between sectors and geographies.
Unmanned Aerial Systems (UAS) and Commercial Space	Emerging aviation technologies, including UAS and commercial space systems, have exponentially increased in recent years, with some industry analysts likening their transformational power to the jet engine over 80 years ago. Both technologies offer numerous opportunities for commercial, military, educational, and other applications.

Issue	Overview
Fixed Base Operators (FBOs) Pricing Transparency	Fixed base operators offer critical services to GA users at commercial service and GA airports. While a vital link within the GA community, pilots sometimes report unexpected ancillary costs associated with landing fees, ramp storage, and other services. FBO fee structures can be complicated and change without notice—causing confusion and frustration amongst pilots forced to pay charges viewed as high.
Growth of E-Commerce	Consumers' reliance on e-commerce has grown rapidly in recently years, a trend that has only accelerated since the start of the COVID-19 pandemic. Consumers increasingly expect near-immediate delivery of purchases, and air cargo is now used for the transportation of all types of durable and non-durable goods. This has placed new demands on air cargo handling facilities and increased truck traffic around airports for last-mile connection needs.
Fuel Availability	Airports that offer fuel are more attractive to aircraft owners/pilots when choosing where to base their aircraft. Pilots often make decisions on where to fly based on the cost of fuel at potential destination airports. Fuel sales provide an important revenue source for some airports and can be a factor in where aviation-related businesses locate.
PFAS	Per- and polyfluoroalkyl substances (PFASs) are found in many types of aqueous film-forming foams (AFFFs) used for airport/aircraft firefighting activities. Because PFASs are toxic to the environment and human health, state and federal government agencies are implementing regulations governing their usage.
Rebuild Illinois Bill	In 2019, Governor J.B. Pritzker approved $45 billion dollars to improve Illinois' infrastructure, state facilities, and educational system. Approximately $23.3 billion is earmarked specifically for transportation assets including roads, bridges, ports, and airports. With funds available over a six-year period, the Rebuild Illinois Bill has the potential to close significant funding gaps affecting Illinois' airports and address many of the projects identified by individual airports and through the IASP.
Runway Condition	Properly maintained runways adequately sized for the type and frequency of aviation activities they support are fundamental to a safe and efficient airport system. Airport managers across Illinois cited concerns regarding pavement conditions, which can be costly to repair but can also present threats to safety and operational efficiency. Runway length is a key factor of the type of aircraft that can use an airport, as well as its operational capacity.

Source: Kimley-Horn, 2020

10.4.1. Dedicated Aviation Funding

Illinois State Funding is appropriated annually by the Illinois State General Assembly. The funding amount varies by year based on program funding needs; however, in FY-2022, seven ($7) million in state funding was appropriated by the state legislature. These funds are used for State of Illinois match to federal funds and the funding of state aviation planning and environmental studies.

Additionally, the State has at times provided an additional appropriation for funding a State/Local Capital Development Program. Program years for this appropriation include 2004, 2012, 2017, and most recently in 2019 through the Rebuild Illinois Bill.[129] These one-time appropriations have benefited airport and the overall state system; however, for future planning purposes a continuous and consistent program is recommended. The allocation of a fixed annual amount of dedicated aviation funding for this State/Local Capital Development Program would enable IDOT Aeronautics to support its current and on-going capital development projects, as well as planning and programing efforts that support aviation systemwide.

It is recommended that IDOT advocate for policies that allow for this continuous and consistent annual funding of approximately $15 million for this State/Local Capital Development Program. Consistent, dedicated funding will allow IDOT Aeronautics to better plan for and support the state's aviation system as well-defined funding amounts for projects can be relied upon regularly for systemwide planning and programing efforts.

10.4.2. Environmental Justice

As a federal agency, the FAA is responsible for ensuring recipients of federal funding are compliant with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d). Title VI prohibits discrimination on the grounds of race, color, national origin, sex, religion, and age. These federal laws require airports to take affirmation action to ensure nondiscrimination is included in all their operations, such as local and state funded contract programs, employment activities, and benefits and services provided by tenants, air carriers, FBOs, and concessionaires. Under Title VI, airports are obligated to address Environmental Justice (EJ) and Limited English Proficient (LEP) in their planning and operation efforts.

IDOT Aeronautics is also obligated to meet the compliance requirements under Title VI. These requirements consist of ensuring inclusion of diverse groups and limiting disparate and disproportionate impacts to EJ, LEP, and low-income populations. To ensure Title VI compliance requirements are being met, IDOT Aeronautics should commission a study to understand and provide recommendations for the accommodation of environmental justice, expansion of Disadvantaged Business Enterprise (DBE), and broader equity, inclusion, and diversity issues in the aviation industry.

10.4.3. IDOT Aeronautics Staffing

IDOT Aeronautics, as enabled by state statutes (20 ILCS 2705) and with the Illinois Aeronautics Act, has the power to exercise, administer, and enforce, all rights, powers, and duties of the IDOT Aeronautics. IDOT Aeronautics has the power to regulate and supervise aeronautics in the state and to administer and enforce all laws of the state pertaining to aeronautics.

IDOT Aeronautics' ability to perform its enabled duties under state statutes and polices is limited by staffing capacity and the availability of open positions at IDOT Aeronautics. As indicated in **Table 10.6**,

[129] The Rebuild Illinois Airport Capital Improvement Program (ACIP) provides competitive grants for the planning, construction, reconstruction, extension, development, and improvement of public-use airports that are included in the Illinois Aviation System Plan (IASP). ACIP grants augment the continual Federal Airport Improvement Program (AIP), and other state aviation programs, where funding limitations and constraints prevent otherwise justified projects from being completed. In the Spring of 2019, Rebuild Illinois appropriated the sum of $144 million to the Illinois Department of Transportation (IDOT) for such purposes, in accordance with the Illinois Aeronautics Act and other applicable state statutes. Considering demand for funding a growing backlog of justified improvements to the Illinois Aviation System (IAS), and the complexity inherent in the planning, design, letting and construction process for airports, IDOT will utilize this 6-year capital bill appropriation to establish no greater than a 4-year ACIP from FY 2021 – FY 2025. (https://idot.illinois.gov/transportation-system/transportation-management/transportation-improvement-programs-/Annual-Airport-Improvement/index)

workforce shortages are negatively impacting all aspects of the aviation industry. Currently, IDOT Aeronautics has several open positions.

Staffing shortages within IDOT Aeronautics can be temporarily mitigated by the use of on-call planning and engineering professional services contracts. Through these contracts, contractors and consultants can provide in-house staff service, working as an extension of IDOT Aeronautics staff, in support of statewide aviation planning and program management. Specifically, in-house staff can assist IDOT Aeronautics in the development, implementation, and monitoring of IDOT Aeronautics programs and projects, such as program development, airport planning, aviation system planning, and airport engineering. It is recommended that IDOT Aeronautics establish a professional services on-call contact and recurring program to help mitigate current staffing shortages.

10.4.4. Web-Based Management System

Web-based management systems are valuable project management tools that house programs, processes, and information for various projects and project phases that is easily accessible. More specifically, web-based management systems can be used to manage projects, grant programs, and serve as statewide project management databases. For IDOT Aeronautics, a web-based management system can serve as a statewide aviation database organizational resource for tracking project prioritization, project and grant funding, project status, and asset management and inventory. The web-based management system can be used for efficient project and program tracking and reporting. The web-base management system can be used internally within IDOT Aeronautics, as well as have externally facing components for use and reference by airport managers and sponsors. It is recommended that IDOT Aeronautics develop a web-based management system.

10.5. Summary

This chapter concludes the IASP, a multi-year collaboration between IDOT Aeronautics, the FAA, and various stakeholders represented on the TAC. The collaboration resulted in substantive outcomes and deliverables, including the recommendations and considerations that serve as IDOT Aeronautics' 20-year implementation plan. Project needs came from deficiencies identified through PMs and Facility and Service Objectives (FSOs) appropriate to each airport's classification. In addition, qualitative reviews of other issues throughout the state and U.S. were evaluated for future considerations. Once combined, the project recommendations resulted in a total, 20-year need of over $11 billion which includes needs from Chicago O'Hare International (ORD) and Chicago Midway International (MDW).

It is important to note that the Illinois Aviation Economic Impact Analysis (EIA) was also conducted as part of this effort to quantify Illinois' airports contribution to the local, regional, and statewide economies. As reported separately in an EIA full technical report, Illinois' airports contributed over $95 billion to the statewide economy in 2019. Economic impacts vary year-to-year, however, when compared to the 20-year needs identified in the IASP of $11 billion ($550 million annual), Illinois' airports contribute significantly more to the economy each year than they require investment. This emphasizes the value of airports in Illinois and justifies the continued support of IDOT Aeronautics by way of projects and programs to maximize funding. This implementation plan was developed to provide IDOT Aeronautics with data and recommendations to make informed decisions that will improve the aviation industry in the Land of Lincoln for years to come.

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Appendix A. Airport Record Cards

Appendix A presents report cards for each airport in the IASP. Report cards are presented by Illinois airport classification and then in alphabetical order by the airport's associated city. The report cards are directly associated with the Facility and Service Objectives (FSOs) introduced in **Chapter 2. Airport Classifications**. The following airport report cards individually document how each system airport performed related to FSOs associated with their airport classification.

Additional FSO context is provided below:

- If the existing condition is greater than or equal to the airport classification objective, then the airport has met the 2020 objective, denoted by a green "Yes" in the 'Meets Objective?' column.
- In some instances, Illinois Basic and Illinois Unclassified airports have an objective of "maintain existing". This means that the current condition of the facility/service being evaluated has met the objective.
- In some instances, airport performance is noted as "N/A" for not applicable. "N/A" is appropriate when a certain facility or service is not identified as an objective for the associated airport classification.
- In some instances, airports did not provide enough data to determine performance related to the objective for their classification. In this case, airport performance is documented as "NP" for not provided.
- The objective for Approach Lighting Systems (ALS) applies to the Commercial Service, Illinois National, and Illinois Regional state classifications. ALSs are a configuration of signal lights starting at the landing threshold and extending into the approach area to transition from instrument flight to visual flight for landing. Airports with an ALS objective meet this objective if they had at least one of the following ALS systems on one primary runway end:
    - High Intensity Approach Lighting Systems (ALSF-2)
    - Lead-In System (LDIN)
    - Medium Intensity Approach Lighting System with Runway Alignment Indicator (MALSR)
    - Omni-directional Approach Lights (ODALs)
    - Runway Lead-in Light System (RLLS)

The objective for Vertical Glide Slope Indicators (VGSIs) applies to all IASP classifications except Illinois Unclassified. Airports met the VGSI objective if they have one of the following VGSI equipment on at least one primary runway end:

- Precision Approach Path Indicators (PAPIs)
- Visual Approach Slope Indicators (VASIs)
- The objective for Runway End Indicator Lights (REILs) applies to all IASP classifications except Illinois Unclassified. Airports met the REILs objective if they had REILs on at least one primary runway end. The presence of a MALSR or other ALS that functions as a runway end indicator light was also considered for this objective.
- The terminal building objective at GA airports is based on an acceptable ratio of terminal square footage to itinerant operations. This was determined to be a ratio of 150 sq. ft. per passenger as defined by Airport Cooperative Research Program (ACRP) Report 25. Therefore, if a GA airport's terminal building square footage is greater than or equal to the acceptable ratio, the airport met the objective. ALPs were used to estimate GA terminal building square footage and Google Earth was a supplementary source, as needed.

- The hangar objective for Commercial Service, Illinois National, Illinois Regional, Illinois Local, and Illinois Basic evaluated covered storage for based and transient aircraft. Airports receive a performance rating for their based and transient aircraft covered storage. If airports within these classifications have enough based aircraft hangar space to accommodate a certain percentage of based aircraft, they met the based aircraft portion of this objective. If airports within these classifications reported enough hangar space to accommodate a certain percentage of transient aircraft, they met the transient aircraft portion of the objective.

It is important to note that FSOs are not requirements for airports, but instead are minimum recommendations of facilities and services airports should strive to achieve. **Table A.1** presents the 2020 IASP FSOs for each airport classification.

Table A.1. 2020 IASP Facility and Service Objectives

Objective Category	Commercial Service	Illinois National	Illinois Regional	Illinois Local	Illinois Basic	Illinois Unclassified
Airfield						
ARC	C-III	C-II	A/B-II	A/B-II Small Aircraft	A-I/B-I	A/B-I Small Aircraft
Primary Runway Length	7,000 ft.	6,000 ft.	5,000 ft.	5,000 ft.	Maintain Existing	Maintain Existing
Primary Runway Width	150 ft.	100 ft.	75 ft.	75 ft.	60 ft.	60 ft.
Primary Runway Surface	Paved	Paved	Paved	Paved	Paved	Maintain Existing
Skid Treatment (Groove/PFC)	Yes	Yes	Yes	Yes	Not an Objective	Not an Objective
Taxiway	Full Parallel	Full Parallel	Full Parallel	Full Parallel	Partial Parallel	Maintain Existing
Runway Markings	Precision	Precision	Precision	Non-Precision	Basic	Maintain Existing
Approach	Precision	Precision	Precision	Non-Precision	Maintain Existing	Maintain Existing
ALS	Yes	Yes	Yes	Not an Objective	Not an Objective	Not an Objective
Rotating Beacon	Yes	Yes	Yes	Yes	Yes	Not an Objective
VGSIs	Yes	Yes	Yes	Yes	Yes	Not an Objective
REILs	Yes	Yes	Yes	Yes	Yes	Not an Objective
Runway Lighting	Yes	Yes	Yes	Yes	Yes	Not an Objective
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes	Yes	Not an Objective	Not an Objective
Taxiway Lighting	Yes	Yes	Yes	Yes	Yes	Not an Objective
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	Maintain Existing
Landside Facilities						
Terminal (GA)	Per ALP	Acceptable ratio of GA terminal square footage to peak hour passengers	Acceptable ratio of GA terminal square footage to peak hour passengers	Acceptable ratio of GA terminal square footage to peak hour passengers	500 sq. ft.	Maintain Existing
Snow Removal Equipment (SRE)	Yes	Yes	Yes	Through mutual aid agreement	Through mutual aid agreement	Through mutual aid agreement
Dedicated Maintenance/SRE Storage Building	Yes	Yes	Yes	Yes – if SRE available No – if SRE unavailable	Yes – if SRE available No – if SRE unavailable	Yes – if SRE available No – if SRE unavailable
Airport Service						
24-Hour Fuel (AvGas or Jet A)	Yes	Yes	Yes	Yes	Yes	Not an Objective
Jet A Fuel	Yes	Yes	Yes	Yes	Not an Objective	Not an Objective
Aircraft De-Icing	Yes	Yes	Not an Objective	Not an Objective	Not an Objective	Not an Objective
Pilot Area/Flight Planning Area	Yes	Yes	Yes	Yes	Yes	Not an Objective

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Table A.2. Order of Airport Report Cards Presented

Associated City	Airport Name	FAA ID
Commercial Service		
Belleville	MidAmerica St. Louis	BLV
Bloomington/Normal	Central Illinois Regional Airport at Bloomington-Normal	BMI
Champaign/Urbana	University of Illinois-Willard	CMI
Chicago	Chicago Midway International	MDW
Chicago	Chicago O'Hare International	ORD
Chicago/Rockford	Chicago/Rockford International	RFD
Decatur	Decatur	DEC
Marion	Veterans Airport of Southern Illinois	MWA
Moline	Quad City International	MLI
Peoria	General Downing-Peoria International	PIA
Quincy	Quincy Regional-Baldwin Field	UIN
Springfield	Abraham Lincoln Capital	SPI
Illinois National		
Chicago/Aurora	Aurora Municipal	ARR
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK
Chicago/Waukegan	Waukegan National	UGN
Chicago/West Chicago	Dupage	DPA
Illinois Regional		
Alton/St Louis	St Louis Regional	ALN
Cahokia/St Louis	St Louis Downtown	CPS
Carbondale/Murphysboro	Southern Illinois	MDH
Chicago/Lake In The Hills	Lake In The Hills	3CK
Chicago/Romeoville	Lewis University	LOT
Danville	Vermilion Regional	DNV
DeKalb	DeKalb Taylor Municipal	DKB
Effingham	Effingham County Memorial	1H2
Galesburg	Galesburg Municipal	GBG
Jacksonville	Jacksonville Municipal	IJX
Kankakee	Greater Kankakee	IKK
Macomb	Macomb Municipal	MQB
Mattoon/Charleston	Coles County Memorial	MTO
Monee	Bult Field	C56
Morris	Morris Municipal-James R. Washburn Field	C09
Mount Vernon	Mount Vernon	MVN
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS
Sterling/Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI

Associated City	Airport Name	FAA ID
Illinois Local		
Bolingbrook	Bolingbrook's Clow International	1C5
Canton	Ingersoll	CTK
Carmi	Carmi Municipal	CUL
Casey	Casey Municipal	1H8
Centralia	Centralia Municipal	ENL
Chicago	Lansing Municipal	IGQ
Chicago/Schaumburg	Schaumburg Regional	06C
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73
Freeport	Albertus	FEP
Greenville	Greenville	GRE
Harrisburg	Harrisburg-Raleigh	HSB
Joliet	Joliet Regional	JOT
Kewanee	Kewanee Municipal	EZI
Lacon	Marshall County	C75
Lawrenceville	Lawrenceville-Vincennes International	LWV
Litchfield	Litchfield Municipal	3LF
Mount Carmel	Mount Carmel Municipal	AJG
Olney-Noble	Olney-Noble	OLY
Pekin	Pekin Municipal	C15
Peoria	Mount Hawley Auxiliary	3MY
Pinckneyville	Pinckneyville-Du Quoin Airport	PJY
Pontiac	Pontiac Municipal	PNT
Robinson	Crawford County	RSV
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ
Shelbyville	Shelby County	2H0
Sparta	Sparta Community-Hunter Field	SAR
Illinois Basic		
Beardstown	Greater Beardstown	K06
Benton	Benton Municipal	H96
Cairo	Cairo Regional	CIR
Fairfield	Fairfield Municipal	FWC
Flora	Flora Municipal	FOA
Havana	Havana Regional	9I0
Lincoln	Logan County	AAA
Metropolis	Metropolis Municipal	M30
Monmouth	Monmouth Municipal	C66
Mount Sterling	Mount Sterling Municipal	I63
Paris	Edgar County	PRG
Pittsfield	Pittsfield Penstone Municipal	PPQ
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP

Associated City	Airport Name	FAA ID
Salem	Salem-Leckrone	SLO
Savanna	Tri-Township	SFY
Taylorville	Taylorville Municipal	TAZ
Vandalia	Vandalia Municipal	VLA
Illinois Unclassified		
Greenwood/Wonder Lake	Galt Field	10C
Harvard	Dacy	0C0
Paxton	Paxton	1C1
Poplar Grove	Poplar Grove	C77
Rushville	Schuy-Rush	5K4
Tuscola	Tuscola	K96

Source: Kimley-Horn, 2020

Figure A.1. MidAmerica St. Louis

Airport Information	
Airport Name	MidAmerica St. Louis
Associated City	Belleville
FAA ID	BLV
IASP Airport Role	Commercial Service
Primary Runway	14L/32R

Airfield	Commercial Service Objective	Existing Conditions	Meets Objective?
ARC	C-III	D-V	Yes
Primary Runway Length	7,000 ft	10,000 ft	Yes
Primary Runway Width	150 ft	150 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Yes	Yes	Yes
Taxiway	Full Parallel	Full Parallel	Yes
Runway Markings	Precision	Precision	Yes
Approach	Precision	Precision	Yes
ALS	Yes	Yes	Yes
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Yes	No	No
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet: 1 / No. of based aircraft hangar spaces: 1	Yes
		0 transient hangars	No

Landside Facilities	Commercial Service Objective	Existing Conditions	Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage: Per ALP / GA terminal square footage: Per ALP	Yes
Snow Removal Equipment	Yes	Yes	Yes
Dedicated Maintenance/SRE Storage Building	Yes	No	No

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	No	No

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Figure A.2. . Central Illinois Regional Airport at Bloomington-Normal

Airport Information	
Airport Name	Central Illinois Regional Airport at Bloomington-Normal
Associated City	Bloomington/Normal
FAA ID	BMI
IASP Airport Role	Commercial Service
Primary Runway	02/20

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	C-IV				Yes
Primary Runway Length	7,000 ft	8,000 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	66	No. of based aircraft hangar spaces:	NP	NP
		NP				NP

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.3. University of Illinois-Willard

Airport Information	
Airport Name	University of Illinois-Willard
Associated City	Champaign/Urbana
FAA ID	CMI
IASP Airport Role	Commercial Service
Primary Runway	14L/32R

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	C-IV				Yes
Primary Runway Length	7,000 ft	8,102 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	60	No. of based aircraft hangar spaces:	53	No
		0 transient hangars				No

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.4. Chicago Midway International

Airport Information	
Airport Name	Chicago Midway International
Associated City	Chicago
FAA ID	MDW
IASP Airport Role	Commercial Service
Primary Runway	13C/31C

Airfield	Commercial Service Objective	Existing Conditions	Meets Objective?
ARC	C-III	C-III	Yes
Primary Runway Length	7,000 ft	6,522 ft	No
Primary Runway Width	150 ft	150 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Yes	Yes	Yes
Taxiway	Full Parallel	Full Parallel	Yes
Runway Markings	Precision	Precision	Yes
Approach	Precision	Precision	Yes
ALS	Yes	Yes	Yes
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet: 32; No. of based aircraft hangar spaces: 0	No
		NP	NP

Landside Facilities	Commercial Service Objective	Existing Conditions	Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage: Per ALP; GA terminal square footage: Per ALP	Yes
Snow Removal Equipment	Yes	Yes	Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes	Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.5. Chicago O'Hare International

Airport Information	
Airport Name	Chicago O'Hare International
Associated City	Chicago
FAA ID	ORD
IASP Airport Role	Commercial Service
Primary Runway	09C/27C

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	D-VI				Yes
Primary Runway Length	7,000 ft	11,245 ft				Yes
Primary Runway Width	150 ft	200 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	0	No. of based aircraft hangar spaces:	0	Yes
		NP				**NP**

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.6. Chicago/Rockford International

Airport Information	
Airport Name	Chicago/Rockford International
Associated City	Chicago/Rockford
FAA ID	RFD
IASP Airport Role	Commercial Service
Primary Runway	07/25

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	D-V				Yes
Primary Runway Length	7,000 ft	10,002 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	91	No. of based aircraft hangar spaces:	90	No
		No transient hangar capacity				No
Landside Facilities	**Commercial Service Objective**	**Existing Conditions**				**Meets Objective?**
Terminal (GA)	Per ALP	Minimum GA terminal square footage		GA terminal square footage		Yes
		Per ALP		Per ALP		
Snow Removal Equipment	Yes	Yes				Yes
Dedicated Maintenance/SRE Storage Building	Yes	No				No
Airport Services	**Commercial Service Objective**	**Existing Conditions**				**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	Yes				Yes
Jet A Fuel	Yes	Yes				Yes
Aircraft De-Icing	Yes	Yes				Yes
Pilot Area/Flight Planning Area	Yes	Yes				Yes

Figure A.7. Decatur

Airport Information	
Airport Name	Decatur
Associated City	Decatur
FAA ID	DEC
IASP Airport Role	Commercial Service
Primary Runway	06/24

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	C-IV				Yes
Primary Runway Length	7,000 ft	8,496 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	44	No. of based aircraft hangar spaces:	115	Yes
		0 transient hangars				No

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	No	No

Figure A.8. Veterans Airport of Southern Illinois

Airport Information	
Airport Name	Veterans Airport of Southern Illinois
Associated City	Marion
FAA ID	MWA
IASP Airport Role	Commercial Service
Primary Runway	02/20

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	C-III				Yes
Primary Runway Length	7,000 ft	8,012 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	37	No. of based aircraft hangar spaces:	40	Yes
		50% available capacity for transient aircraft				Yes

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.9. Quad City International

Airport Information	
Airport Name	Quad City International
Associated City	Moline
FAA ID	MLI
IASP Airport Role	Commercial Service
Primary Runway	09/27

Airfield	Commercial Service Objective	Existing Conditions	Meets Objective?
ARC	C-III	D-V	Yes
Primary Runway Length	7,000 ft	10,002 ft	Yes
Primary Runway Width	150 ft	150 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Yes	Yes	Yes
Taxiway	Full Parallel	Full Parallel	Yes
Runway Markings	Precision	Precision	Yes
Approach	Precision	Precision	Yes
ALS	Yes	Yes	Yes
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet: 68 No. of based aircraft hangar spaces: 111	Yes
		0 transient hangars	No

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.10. General Downing-Peoria International

Airport Information	
Airport Name	General Downing-Peoria International
Associated City	Peoria
FAA ID	PIA
IASP Airport Role	Commercial Service
Primary Runway	13/31

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	D-IV				Yes
Primary Runway Length	7,000 ft	10,104 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	44	No. of based aircraft hangar spaces:	0	No
		0 transient hangars				No

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.11. Quincy Regional Baldwin Field

Airport Information	
Airport Name	Quincy Regional-Baldwin Field
Associated City	Quincy
FAA ID	UIN
IASP Airport Role	Commercial Service
Primary Runway	04/22

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	C-III				Yes
Primary Runway Length	7,000 ft	7,098 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	45	No. of based aircraft hangar spaces:	39	No
		No transient hangar capacity				No
Landside Facilities	**Commercial Service Objective**	**Existing Conditions**				**Meets Objective?**
Terminal (GA)	Per ALP	Minimum GA terminal square footage		GA terminal square footage		Yes
		Per ALP		Per ALP		
Snow Removal Equipment	Yes	Yes				Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes				Yes
Airport Services	**Commercial Service Objective**	**Existing Conditions**				**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	Yes				Yes
Jet A Fuel	Yes	Yes				Yes
Aircraft De-Icing	Yes	Yes				Yes
Pilot Area/Flight Planning Area	Yes	Yes				Yes

Figure A.12. Abraham Lincoln Capital

Airport Information	
Airport Name	Abraham Lincoln Capital
Associated City	Springfield
FAA ID	SPI
IASP Airport Role	Commercial Service
Primary Runway	04/22

Airfield	Commercial Service Objective	Existing Conditions				Meets Objective?
ARC	C-III	D-V				Yes
Primary Runway Length	7,000 ft	8,001 ft				Yes
Primary Runway Width	150 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 80% of based aircraft fleet and at least 25% available capacity for transient aircraft	80 percent of based aircraft fleet:	135	No. of based aircraft hangar spaces:	167	Yes
		0 transient hangars				No

Landside Facilities	Commercial Service Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Per ALP	Minimum GA terminal square footage	GA terminal square footage	Yes
		Per ALP	Per ALP	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Commercial Service Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.13. Aurora Municipal

Airport Information	
Airport Name	Aurora Municipal
Associated City	Chicago/Aurora
FAA ID	ARR
IASP Airport Role	Illinois National
Primary Runway	09/27

Airfield	Illinois National Objective	Existing Conditions				Meets Objective?
ARC	C-II	D-III				Yes
Primary Runway Length	6,000 ft	6,501 ft				Yes
Primary Runway Width	100 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	88	No. of based aircraft hangar spaces:	212	Yes
		0 transient hangars				No

Landside Facilities	Illinois National Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		8,000 sq ft	5,000 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois National Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.14. Chicago Executive

Airport Information	
Airport Name	Chicago Executive
Associated City	Chicago/Prospect Heights/Wheeling
FAA ID	PWK
IASP Airport Role	Illinois National
Primary Runway	16/34

Airfield	Illinois National Objective	Existing Conditions				Meets Objective?
ARC	C-II	D-III				Yes
Primary Runway Length	6,000 ft	5,001 ft				No
Primary Runway Width	100 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	106	No. of based aircraft hangar spaces:	87	No
		0 transient hangars				No

Landside Facilities	Illinois National Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		11,046 sq ft	9,135 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois National Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.15. Waukegan National

Airport Information	
Airport Name	Waukegan National
Associated City	Chicago/Waukegan
FAA ID	UGN
IASP Airport Role	Illinois National
Primary Runway	05/23

Airfield	Illinois National Objective	Existing Conditions				Meets Objective?
ARC	C-II	D-III				Yes
Primary Runway Length	6,000 ft	6,001 ft				Yes
Primary Runway Width	100 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	96	No. of based aircraft hangar spaces:	51	No
		88% available capacity for transient aircraft				Yes

Landside Facilities	Illinois National Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		5,417 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois National Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.16. Dupage

Airport Information	
Airport Name	Dupage
Associated City	Chicago/West Chicago
FAA ID	DPA
IASP Airport Role	Illinois National
Primary Runway	2L/20R

Airfield	Illinois National Objective	Existing Conditions				Meets Objective?
ARC	C-II	D-III				Yes
Primary Runway Length	6,000 ft	7,574 ft				Yes
Primary Runway Width	100 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	172	No. of based aircraft hangar spaces:	148	No
		50% available capacity for transient aircraft				Yes

Landside Facilities	Illinois National Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		16,609 sq ft	16,125 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois National Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Yes	Yes	Yes
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.17. St Louis Regional

Airport Information	
Airport Name	St Louis Regional
Associated City	Alton/St Louis
FAA ID	ALN
IASP Airport Role	Illinois Regional
Primary Runway	11/29

Airfield	Illinois Regional Objective	Existing Conditions		Meets Objective?
ARC	A/B-II	C-VI		Yes
Primary Runway Length	5,000 ft	8,099 ft		Yes
Primary Runway Width	75 ft	150 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Precision	Precision		Yes
Approach	Precision	Precision		Yes
ALS	Yes	Yes		Yes
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 68	No. of based aircraft hangar spaces: 132	Yes
		20% available capacity for transient aircraft		No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		4,307 sq ft	9,792 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.18. St. Louis Downtown

Airport Information	
Airport Name	St Louis Downtown
Associated City	Cahokia/St Louis
FAA ID	CPS
IASP Airport Role	Illinois Regional
Primary Runway	12R/30L

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	C-III				Yes
Primary Runway Length	5,000 ft	7,002 ft				Yes
Primary Runway Width	75 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	74	No. of based aircraft hangar spaces:	175	Yes
		0 airport owned transient hangars				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		12,012 sq ft	6,502 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.19. Southern Illinois

Airport Information	
Airport Name	Southern Illinois
Associated City	Carbondale/Murphysboro
FAA ID	MDH
IASP Airport Role	Illinois Regional
Primary Runway	18L/36R

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	C-III				Yes
Primary Runway Length	5,000 ft	6,506 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	41	No. of based aircraft hangar spaces:	60	Yes
		No transient hangar capacity				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		11,409 sq ft	8,550 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.20. Lake in the Hills

Airport Information	
Airport Name	Lake In The Hills
Associated City	Chicago/Lake In The Hills
FAA ID	3CK
IASP Airport Role	Illinois Regional
Primary Runway	08/26

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	B-II				Yes
Primary Runway Length	5,000 ft	3,801 ft				No
Primary Runway Width	75 ft	50 ft				No
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Non-precision				No
Approach	Precision	Non-precision				No
ALS	Yes	No				No
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	No				No
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	62	No. of based aircraft hangar spaces:	89	Yes
		0 transient hangars				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		4,250 sq ft	5,810 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.21. Lewis University

Airport Information	
Airport Name	Lewis University
Associated City	Chicago/Romeoville
FAA ID	LOT
IASP Airport Role	Illinois Regional
Primary Runway	02/20

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	D-II				Yes
Primary Runway Length	5,000 ft	6,500 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Non-precision				No
Approach	Precision	Non-precision				No
ALS	Yes	NP				NP
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	86	No. of based aircraft hangar spaces:	118	Yes
		No transient hangar capacity				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		13,231 sq ft	36,000 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.22. Vermillion Regional

Airport Information	
Airport Name	Vermilion Regional
Associated City	Danville
FAA ID	DNV
IASP Airport Role	Illinois Regional
Primary Runway	03/21

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	C-III				Yes
Primary Runway Length	5,000 ft	6,006 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	37	No. of based aircraft hangar spaces:	87	Yes
		99% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,250 sq ft	13,400 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.23. DeKalb Taylor Municipal

Airport Information	
Airport Name	DeKalb Taylor Municipal
Associated City	DeKalb
FAA ID	DKB
IASP Airport Role	Illinois Regional
Primary Runway	02/20

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	D-III				Yes
Primary Runway Length	5,000 ft	7,026 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	43	No. of based aircraft hangar spaces:	62	Yes
		40% available capacity for transient aircraft				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		3,375 sq ft	22,500 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.24. Effingham County Memorial

Airport Information	
Airport Name	Effingham County Memorial
Associated City	Effingham
FAA ID	1H2
IASP Airport Role	Illinois Regional
Primary Runway	11/29

Airfield	Illinois Regional Objective	Existing Conditions		Meets Objective?
ARC	A/B-II	C-I		Yes
Primary Runway Length	5,000 ft	5,103 ft		Yes
Primary Runway Width	75 ft	100 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	No		No
Taxiway	Full Parallel	Partial Parallel		No
Runway Markings	Precision	Non-precision		No
Approach	Precision	Non-precision		No
ALS	Yes	No		No
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 14	No. of based aircraft hangar spaces: 24	Yes
		0 transient hangars		No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		3,113 sq ft	1,925 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.25. Galesburg Municipal

Airport Information	
Airport Name	Galesburg Municipal
Associated City	Galesburg
FAA ID	GBG
IASP Airport Role	Illinois Regional
Primary Runway	03/21

Airfield	Illinois Regional Objective	Existing Conditions		Meets Objective?
ARC	A/B-II	C-II		Yes
Primary Runway Length	5,000 ft	5,792 ft		Yes
Primary Runway Width	75 ft	150 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Precision	Precision		Yes
Approach	Precision	Precision		Yes
ALS	Yes	Yes		Yes
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 22	No. of based aircraft hangar spaces: 32	Yes
		No transient hangar capacity		No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,200 sq ft	4,800 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.26. Jacksonville Municipal

Airport Information	
Airport Name	Jacksonville Municipal
Associated City	Jacksonville
FAA ID	IJX
IASP Airport Role	Illinois Regional
Primary Runway	13/31

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	C-I				Yes
Primary Runway Length	5,000 ft	5,000 ft				Yes
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Non-precision				No
Approach	Precision	Non-precision				No
ALS	Yes	No				No
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	19	No. of based aircraft hangar spaces:	32	Yes
		No transient hangar capacity				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		863 sq ft	3,196 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.27. Greater Kankakee

Airport Information	
Airport Name	Greater Kankakee
Associated City	Kankakee
FAA ID	IKK
IASP Airport Role	Illinois Regional
Primary Runway	04/22

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	D-II				Yes
Primary Runway Length	5,000 ft	5,981 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	58	No. of based aircraft hangar spaces:	105	Yes
		0 transient hangars				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		5,875 sq ft	6,720 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.28. Macomb Municipal

Airport Information	
Airport Name	Macomb Municipal
Associated City	Macomb
FAA ID	MQB
IASP Airport Role	Illinois Regional
Primary Runway	09/27

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	D-II				Yes
Primary Runway Length	5,000 ft	5,100 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Precision	Non-precision				No
Approach	Precision	Non-precision				No
ALS	Yes	NP				NP
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	18	No. of based aircraft hangar spaces:	37	Yes
		No transient hangar capacity				No
Landside Facilities	**Illinois Regional Objective**	**Existing Conditions**				**Meets Objective?**
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage		GA terminal square footage		Yes
		1,125 sq ft		5,600 sq ft		
Snow Removal Equipment	Yes	Yes				Yes
Dedicated Maintenance/SRE Storage Building	Yes	No				No
Airport Services	**Illinois Regional Objective**	**Existing Conditions**				**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	Yes				Yes
Jet A Fuel	Yes	Yes				Yes
Aircraft De-Icing	Not an Objective	No				N/A
Pilot Area/Flight Planning Area	Yes	Yes				Yes

Figure A.29. Coles County Memorial

Airport Information	
Airport Name	Coles County Memorial
Associated City	Mattoon/Charleston
FAA ID	MTO
IASP Airport Role	Illinois Regional
Primary Runway	11/29

Airfield	Illinois Regional Objective	Existing Conditions		Meets Objective?
ARC	A/B-II	C-III		Yes
Primary Runway Length	5,000 ft	6,501 ft		Yes
Primary Runway Width	75 ft	150 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Precision	Precision		Yes
Approach	Precision	Precision		Yes
ALS	Yes	Yes		Yes
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 37	No. of based aircraft hangar spaces: 53	Yes
		75% available capacity for transient aircraft		Yes

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		4,069 sq ft	7,000 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.30. Bult Field

Airport Information	
Airport Name	Bult Field
Associated City	Monee
FAA ID	C56
IASP Airport Role	Illinois Regional
Primary Runway	09/27

Airfield	Illinois Regional Objective	Existing Conditions		Meets Objective?
ARC	A/B-II	B-I		No
Primary Runway Length	5,000 ft	5,001 ft		Yes
Primary Runway Width	75 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	No		No
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Precision	Non-precision		No
Approach	Precision	Non-precision		No
ALS	Yes	No		No
Rotating Beacon	Yes	No		No
VGSIs	Yes	No		No
REILs	Yes	No		No
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	No		No
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 44	No. of based aircraft hangar spaces: 139	Yes
		0 transient hangars		No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,663 sq ft	10,000 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Note: SRE at Bult Field is owned and operated by the FBO

Figure A.31. Morris Municipal – James R. Washburn Field

Airport Information	
Airport Name	Morris Municipal-James R Washburn Field
Associated City	Morris
FAA ID	C09
IASP Airport Role	Illinois Regional
Primary Runway	18/36

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	B-II				Yes
Primary Runway Length	5,000 ft	5,501 ft				Yes
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Non-precision				No
Approach	Precision	Non-precision				No
ALS	Yes	No				No
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	45	No. of based aircraft hangar spaces:	74	Yes
		No transient hangar capacity				No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		5,250 sq ft	5,100 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.32. Mount Vernon

Airport Information	
Airport Name	Mount Vernon
Associated City	Mount Vernon
FAA ID	MVN
IASP Airport Role	Illinois Regional
Primary Runway	05/23

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	C-III				Yes
Primary Runway Length	5,000 ft	6,496 ft				Yes
Primary Runway Width	75 ft	150 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Precision	Precision				Yes
Approach	Precision	Precision				Yes
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	27	No. of based aircraft hangar spaces:	36	Yes
		50% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		3,407 sq ft	25,300 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	Yes		Yes

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.33. Illinois Valley Regional-Walter A. Duncan Field

Airport Information	
Airport Name	Illinois Valley Regional-Walter A Duncan Field
Associated City	Peru
FAA ID	VYS
IASP Airport Role	Illinois Regional
Primary Runway	18/36

Airfield	Illinois Regional Objective	Existing Conditions				Meets Objective?
ARC	A/B-II	C-II				Yes
Primary Runway Length	5,000 ft	6,001 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Precision	Precision				Yes
Approach	Precision	Non-precision				No
ALS	Yes	Yes				Yes
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	No				No
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	28	No. of based aircraft hangar spaces:	39	Yes
		100% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,606 sq ft	6,776 sq ft	
Snow Removal Equipment	Yes	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.34. Whiteside County-Jos H. Bittorf Field

Airport Information	
Airport Name	Whiteside County-Jos H Bittorf Field
Associated City	Sterling/Rockfalls
FAA ID	SQI
IASP Airport Role	Illinois Regional
Primary Runway	07/25

Airfield	Illinois Regional Objective	Existing Conditions		Meets Objective?
ARC	A/B-II	C-III		Yes
Primary Runway Length	5,000 ft	6,499 ft		Yes
Primary Runway Width	75 ft	150 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Precision	Precision		Yes
Approach	Precision	Precision		Yes
ALS	Yes	Yes		Yes
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 25	No. of based aircraft hangar spaces: 44	Yes
		0 transient hangars		No

Landside Facilities	Illinois Regional Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		4,075 sq ft	3,819 sq ft	
Snow Removal Equipment	Yes	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes	No		No

Airport Services	Illinois Regional Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.35. Bolingbrook's Clow International

Airport Information	
Airport Name	Bolingbrook's Clow International
Associated City	Bolingbrook
FAA ID	1C5
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-I				No
Primary Runway Length	5,000 ft	3,386 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	No				No
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	No				No
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	57	No. of based aircraft hangar spaces:	35	No
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		6,250 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.36. Ingersoll

Airport Information	
Airport Name	Ingersoll
Associated City	Canton
FAA ID	CTK
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions		Meets Objective?
ARC	A/B-II Small Aircraft	B-II		Yes
Primary Runway Length	5,000 ft	3,899 ft		No
Primary Runway Width	75 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	No		No
Taxiway	Full Parallel	Turnaround		No
Runway Markings	Non-precision	Non-precision		Yes
Approach	Non-precision	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	No		No
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 19	No. of based aircraft hangar spaces: 34	Yes
		0 transient hangars		No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		2,375 sq ft	1,701 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	No	No
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.37. Carmi Municipal

Airport Information	
Airport Name	Carmi Municipal
Associated City	Carmi
FAA ID	CUL
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	4,000 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	14	No. of based aircraft hangar spaces:	24	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		1,688 sq ft	525 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.38. Casey Municipal

Airport Information	
Airport Name	Casey Municipal
Associated City	Casey
FAA ID	1H8
IASP Airport Role	Illinois Local
Primary Runway	04/22

Airfield	Illinois Local Objective	Existing Conditions		Meets Objective?
ARC	A/B-II Small Aircraft	B-II		Yes
Primary Runway Length	5,000 ft	4,001 ft		No
Primary Runway Width	75 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Partial Parallel		No
Runway Markings	Non-precision	Non-precision		Yes
Approach	Non-precision	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	No		No
REILs	Yes	No		No
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	No		No
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 9	No. of based aircraft hangar spaces: 31	Yes
		0 transient hangars		No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		994 sq ft	6,400 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	No	No
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.39. Centralia Municipal

Airport Information	
Airport Name	Centralia Municipal
Associated City	Centralia
FAA ID	ENL
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions		Meets Objective?
ARC	A/B-II Small Aircraft	B-II		Yes
Primary Runway Length	5,000 ft	5,001 ft		Yes
Primary Runway Width	75 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	No		No
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Non-precision	Non-precision		Yes
Approach	Non-precision	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 20	No. of based aircraft hangar spaces: 20	Yes
		0 transient hangars		No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		3,494 sq ft	3,745 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		Aiport-owned SRE unavailable

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.40. Lansing Municipal

Airport Information	
Airport Name	Lansing Municipal
Associated City	Chicago
FAA ID	IGQ
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	4,002 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	61	No. of based aircraft hangar spaces:	150	Yes
		95% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		7,425 sq ft	2,300 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.41. Schaumburg Regional

Airport Information	
Airport Name	Schaumburg Regional
Associated City	Chicago/Schaumburg
FAA ID	06C
IASP Airport Role	Illinois Local
Primary Runway	11/29

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	3,800 ft				No
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Basic				No
Approach	Non-precision	Visual				No
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	44	No. of based aircraft hangar spaces:	53	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		5,625 sq ft	13,384 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.42. Dixon Municipal-Charles R. Walgreen Field

Airport Information	
Airport Name	Dixon Municipal-Charles R Walgreen Field
Associated City	Dixon
FAA ID	C73
IASP Airport Role	Illinois Local
Primary Runway	08/26

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-I				No
Primary Runway Length	5,000 ft	3,897 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	No				No
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	23	No. of based aircraft hangar spaces:	48	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		5,000 sq ft	2,475 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	No	No
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.43. Albertus

Airport Information	
Airport Name	Albertus
Associated City	Freeport
FAA ID	FEP
IASP Airport Role	Illinois Local
Primary Runway	06/24

Airfield	Illinois Local Objective	Existing Conditions		Meets Objective?
ARC	A/B-II Small Aircraft	D-II		Yes
Primary Runway Length	5,000 ft	5,504 ft		Yes
Primary Runway Width	75 ft	100 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Full Parallel		Yes
Runway Markings	Non-precision	Precision		Yes
Approach	Non-precision	Precision		Yes
ALS	Not an Objective	Yes		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 35	No. of based aircraft hangar spaces: 67	Yes
		0 transient hangars		No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,548 sq ft	9,200 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.44. Greeneville

Airport Information	
Airport Name	Greenville
Associated City	Greenville
FAA ID	GRE
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	4,002 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	32	No. of based aircraft hangar spaces:	46	Yes
		100% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		3,000 sq ft	2,100 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.45. Harrisburg-Raleigh

Airport Information	
Airport Name	Harrisburg-Raleigh
Associated City	Harrisburg
FAA ID	HSB
IASP Airport Role	Illinois Local
Primary Runway	06/24

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	5,013 ft				Yes
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	14	No. of based aircraft hangar spaces:	0	No
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,213 sq ft	6,500 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.46. Joliet Regional

Airport Information	
Airport Name	Joliet Regional
Associated City	Joliet
FAA ID	JOT
IASP Airport Role	Illinois Local
Primary Runway	13/31

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-I				No
Primary Runway Length	5,000 ft	2,821 ft				No
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Visual				No
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	43	No. of based aircraft hangar spaces:	62	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		3,038 sq ft	12,600 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.47. Kewanee Municipal

Airport Information	
Airport Name	Kewanee Municipal
Associated City	Kewanee
FAA ID	EZI
IASP Airport Role	Illinois Local
Primary Runway	09/27

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	4,500 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	13	No. of based aircraft hangar spaces:	30	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,495 sq ft	2,400 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	No	No
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.48. Marshall County

Airport Information	
Airport Name	Marshall County
Associated City	Lacon
FAA ID	C75
IASP Airport Role	Illinois Local
Primary Runway	13/31

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	4,003 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	31	No. of based aircraft hangar spaces:	52	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,325 sq ft	3,224 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	No		No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	No	No
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.49. Lawrenceville-Vincennes International

Airport Information	
Airport Name	Lawrenceville-Vincennes International
Associated City	Lawrenceville
FAA ID	LWV
IASP Airport Role	Illinois Local
Primary Runway	09/27

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	C-II				Yes
Primary Runway Length	5,000 ft	5,198 ft				Yes
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	Yes				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	31	No. of based aircraft hangar spaces:	42	Yes
		40% available capacity for transient aircraft				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		4,338 sq ft	7,850 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	Yes	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.50. Litchfield Municipal

Airport Information	
Airport Name	Litchfield Municipal
Associated City	Litchfield
FAA ID	3LF
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions	Meets Objective?
ARC	A/B-II Small Aircraft	B-II	Yes
Primary Runway Length	5,000 ft	4,002 ft	No
Primary Runway Width	75 ft	75 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Yes	No	No
Taxiway	Full Parallel	Full Parallel	Yes
Runway Markings	Non-precision	Non-precision	Yes
Approach	Non-precision	Non-precision	Yes
ALS	Not an Objective	No	N/A
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 20; No. of based aircraft hangar spaces: 35	Yes
		0 transient hangars	No

Landside Facilities	Illinois Local Objective	Existing Conditions	Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage: 1,800 sq ft; GA terminal square footage: 2,600 sq ft	Yes
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes	Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes	Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.51. Mount Carmel Municipal

Airport Information	
Airport Name	Mount Carmel Municipal
Associated City	Mount Carmel
FAA ID	AJG
IASP Airport Role	Illinois Local
Primary Runway	04/22

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	C-II				Yes
Primary Runway Length	5,000 ft	4,000 ft				No
Primary Runway Width	75 ft	100 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Full Parallel				Yes
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	11	No. of based aircraft hangar spaces:	16	Yes
		100% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,344 sq ft	1,800 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.52. Olney-Noble

Airport Information	
Airport Name	Olney-Noble
Associated City	Olney-Noble
FAA ID	OLY
IASP Airport Role	Illinois Local
Primary Runway	11/29

Airfield	Illinois Local Objective	Existing Conditions		Meets Objective?
ARC	A/B-II Small Aircraft	B-II		Yes
Primary Runway Length	5,000 ft	4,099 ft		No
Primary Runway Width	75 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Partial Parallel		No
Runway Markings	Non-precision	Non-precision		Yes
Approach	Non-precision	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 11	No. of based aircraft hangar spaces: 19	Yes
		0 transient hangars		No
Landside Facilities	**Illinois Local Objective**	**Existing Conditions**		**Meets Objective?**
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		750 sq ft	5,170 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	No		No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**
Airport Services	**Illinois Local Objective**	**Existing Conditions**		**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	Yes		Yes
Jet A Fuel	Yes	Yes		Yes
Aircraft De-Icing	Not an Objective	No		N/A
Pilot Area/Flight Planning Area	Yes	Yes		Yes

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Figure A.53. Pekin Municipal

Airport Information	
Airport Name	Pekin Municipal
Associated City	Pekin
FAA ID	C15
IASP Airport Role	Illinois Local
Primary Runway	09/27

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	5,000 ft				Yes
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	23	No. of based aircraft hangar spaces:	51	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,125 sq ft	2,565 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	No		No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.54. Mount Hawley Auxiliary

Airport Information	
Airport Name	Mount Hawley Auxiliary
Associated City	Peoria
FAA ID	3MY
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions	Meets Objective?
ARC	A/B-II Small Aircraft	B-II	Yes
Primary Runway Length	5,000 ft	4,001 ft	No
Primary Runway Width	75 ft	60 ft	No
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Yes	No	No
Taxiway	Full Parallel	Partial Parallel	No
Runway Markings	Non-precision	Non-precision	Yes
Approach	Non-precision	Non-precision	Yes
ALS	Not an Objective	No	N/A
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Yes	No	No
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 31; No. of based aircraft hangar spaces: 69	Yes
		0 transient hangars	No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,685 sq ft	9,600 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.55. Pinckeyville-Du Quoin

Airport Information	
Airport Name	Pinckneyville-Du Quoin
Associated City	Pinckneyville
FAA ID	PJY
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-I				No
Primary Runway Length	5,000 ft	3,999 ft				No
Primary Runway Width	75 ft	60 ft				No
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Connector				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	20	No. of based aircraft hangar spaces:	23	Yes
		0 transient hangars				No
Landside Facilities	**Illinois Local Objective**	**Existing Conditions**				**Meets Objective?**
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage		GA terminal square footage		No
		1,000 sq ft		No GA Terminal Building		
Snow Removal Equipment	Yes, or through mutual aid agreement	No				No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No				Aiport-owned SRE unavailable
Airport Services	**Illinois Local Objective**	**Existing Conditions**				**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	Yes				Yes
Jet A Fuel	Yes	No				No
Aircraft De-Icing	Not an Objective	No				N/A
Pilot Area/Flight Planning Area	Yes	Yes				Yes

Figure A.56. Pontiac Municipal

Airport Information	
Airport Name	Pontiac Municipal
Associated City	Pontiac
FAA ID	PNT
IASP Airport Role	Illinois Local
Primary Runway	06/24

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-II				Yes
Primary Runway Length	5,000 ft	5,000 ft				Yes
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	No				No
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				**N/A**
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes				Yes
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	11	No. of based aircraft hangar spaces:	15	Yes
		0 transient hangars				No

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,250 sq ft	6,000 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	**N/A**
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.57. Crawford County

Airport Information	
Airport Name	Crawford County
Associated City	Robinson
FAA ID	RSV
IASP Airport Role	Illinois Local
Primary Runway	09/27

Airfield	Illinois Local Objective	Existing Conditions		Meets Objective?
ARC	A/B-II Small Aircraft	D-II		Yes
Primary Runway Length	5,000 ft	5,108 ft		Yes
Primary Runway Width	75 ft	100 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Yes	Yes		Yes
Taxiway	Full Parallel	Connector		No
Runway Markings	Non-precision	Non-precision		Yes
Approach	Non-precision	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes		Yes
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 9	No. of based aircraft hangar spaces: 24	Yes
		80% available capacity for transient aircraft		Yes

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	Yes
		1,431 sq ft	10,120 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.58. Rochelle Municipal Airport-Koritz Field

Airport Information	
Airport Name	Dacy
Associated City	Harvard
FAA ID	0C0
IASP Airport Role	Illinois Unclassified
Primary Runway	09/27

Airfield	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
ARC	A/B-I Small Aircraft	A-I		Yes
Primary Runway Length	Maintain Existing	3,589 ft		Yes
Primary Runway Width	60 ft	105 ft		Yes
Primary Runway Surface	Maintain Existing	Turf		Yes
Skid Treatment (Groove/PFC)	Not an Objective	N/A		N/A
Taxiway	Maintain Existing	Connector		Yes
Runway Markings	Maintain Existing	None		Yes
Approach	Maintain Existing	Visual		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Not an Objective	No		N/A
VGSIs	Not an Objective	No		N/A
REILs	Not an Objective	No		N/A
Runway Lighting	Not an Objective	No		N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No		N/A
Taxiway Lighting	Not an Objective	No		N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet: 42	No. of based aircraft hangar spaces: 37	No
		0 transient hangars		Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,500 sq ft	Unknown	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	N/A
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	N/A

Figure A.59. Shelby County

Airport Information	
Airport Name	Shelby County
Associated City	Shelbyville
FAA ID	2H0
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions				Meets Objective?
ARC	A/B-II Small Aircraft	B-I				No
Primary Runway Length	5,000 ft	4,098 ft				No
Primary Runway Width	75 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Yes	Yes				Yes
Taxiway	Full Parallel	Partial Parallel				No
Runway Markings	Non-precision	Non-precision				Yes
Approach	Non-precision	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Yes	No				No
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet:	14	No. of based aircraft hangar spaces:	21	Yes
		80% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Local Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage	GA terminal square footage	No
		1,925 sq ft	1,035 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Local Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.60. Sparta Community-Hunter Field

Airport Information	
Airport Name	Sparta Community-Hunter Field
Associated City	Sparta
FAA ID	SAR
IASP Airport Role	Illinois Local
Primary Runway	18/36

Airfield	Illinois Local Objective	Existing Conditions	Meets Objective?
ARC	A/B-II Small Aircraft	B-II	Yes
Primary Runway Length	5,000 ft	4,002 ft	No
Primary Runway Width	75 ft	75 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Yes	No	No
Taxiway	Full Parallel	Full Parallel	Yes
Runway Markings	Non-precision	Non-precision	Yes
Approach	Non-precision	Non-precision	Yes
ALS	Not an Objective	No	**N/A**
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Yes	Yes	Yes
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 60% of based aircraft fleet and at least 50% available capacity for transient aircraft	60% of based aircraft fleet: 19; No. of based aircraft hangar spaces: 29	Yes
		0 transient hangars	No
Landside Facilities	**Illinois Local Objective**	**Existing Conditions**	**Meets Objective?**
Terminal (GA)	Acceptable ratio of GA terminal square footage to peak hour passengers	Minimum GA terminal square footage: 3,938 sq ft; GA terminal square footage: 3,080 sq ft	No
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement	Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No	**Aiport-owned SRE unavailable**
Airport Services	**Illinois Local Objective**	**Existing Conditions**	**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Yes	Yes	Yes
Aircraft De-Icing	Not an Objective	No	**N/A**
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Note: SRE at Sparta Community-Hunter Field is owned and operated by the FBO

Figure A.61. Greater Beardstown

Airport Information	
Airport Name	Greater Beardstown
Associated City	Beardstown
FAA ID	K06
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-I				Yes
Primary Runway Length	Maintain Existing	4,000 ft				Yes
Primary Runway Width	60 ft	60 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	No				N/A
Taxiway	Partial Parallel	Connector/turnaround				No
Runway Markings	Basic	Basic				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	No				No
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	4	No. of based aircraft hangar spaces:	10	Yes
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	2,080 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		**Aiport-owned SRE unavailable**

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	No	No

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Figure A.62. Benton Municipal

Airport Information	
Airport Name	Benton Municipal
Associated City	Benton
FAA ID	H96
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	4,002 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes				N/A
Taxiway	Partial Parallel	Connector				No
Runway Markings	Basic	Non-precision				Yes
Approach	Maintain Existing	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	2	No. of based aircraft hangar spaces:	10	Yes
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	1,600 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.63. Cairo Regional

Airport Information	
Airport Name	Cairo Regional
Associated City	Cairo
FAA ID	CIR
IASP Airport Role	Illinois Basic
Primary Runway	14/32

Airfield	Illinois Basic Objective	Existing Conditions		Meets Objective?
ARC	A-I/B-I	B-II		Yes
Primary Runway Length	Maintain Existing	4,001 ft		Yes
Primary Runway Width	60 ft	100 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Not an Objective	No		N/A
Taxiway	Partial Parallel	Partial Parallel		Yes
Runway Markings	Basic	Non-precision		Yes
Approach	Maintain Existing	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes		N/A
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 8	No. of based aircraft hangar spaces: 25	Yes
		100% available capacity for transient aircraft		Yes
Landside Facilities	**Illinois Basic Objective**	**Existing Conditions**		**Meets Objective?**
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	4,050 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		Aiport-owned SRE unavailable
Airport Services	**Illinois Basic Objective**	**Existing Conditions**		**Meets Objective?**
24-Hour Fuel (AvGas or JetA)	Yes	No		No
Jet A Fuel	Not an Objective	No		N/A
Aircraft De-Icing	Not an Objective	No		N/A
Pilot Area/Flight Planning Area	Yes	Yes		Yes

Figure A.64. Fairfield Municipal

Airport Information	
Airport Name	Fairfield Municipal
Associated City	Fairfield
FAA ID	FWC
IASP Airport Role	Illinois Basic
Primary Runway	09/27

Airfield	Illinois Basic Objective	Existing Conditions		Meets Objective?
ARC	A-I/B-I	C-II		Yes
Primary Runway Length	Maintain Existing	4,000 ft		Yes
Primary Runway Width	60 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes		N/A
Taxiway	Partial Parallel	Partial Parallel		Yes
Runway Markings	Basic	Non-precision		Yes
Approach	Maintain Existing	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes		N/A
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 6	No. of based aircraft hangar spaces: 11	Yes
		0 transient hangars		No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	1,440 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.65. Flora Municipal

Airport Information	
Airport Name	Flora Municipal
Associated City	Flora
FAA ID	FOA
IASP Airport Role	Illinois Basic
Primary Runway	03/21

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	5,033 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	No				N/A
Taxiway	Partial Parallel	Connector				No
Runway Markings	Basic	Non-precision				Yes
Approach	Maintain Existing	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	5	No. of based aircraft hangar spaces:	14	Yes
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	No
		500 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.66. Havana Regional

Airport Information	
Airport Name	Havana Regional
Associated City	Havana
FAA ID	9I0
IASP Airport Role	Illinois Basic
Primary Runway	09/27

Airfield	Illinois Basic Objective	Existing Conditions		Meets Objective?
ARC	A-I/B-I	A-I		Yes
Primary Runway Length	Maintain Existing	2,235 ft		Yes
Primary Runway Width	60 ft	100 ft		Yes
Primary Runway Surface	Paved	Turf		No
Skid Treatment (Groove/PFC)	Not an Objective	N/A		N/A
Taxiway	Partial Parallel	Connector		No
Runway Markings	Basic	None		No
Approach	Maintain Existing	Visual		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	No		No
REILs	Yes	No		No
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	No		N/A
Taxiway Lighting	Yes	No		No
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 5	No. of based aircraft hangar spaces: 16	Yes
		0 transient hangars		No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	3,726 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.67. Logan County

Airport Information	
Airport Name	Logan County
Associated City	Lincoln
FAA ID	AAA
IASP Airport Role	Illinois Basic
Primary Runway	03/21

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	4,000 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	No				N/A
Taxiway	Partial Parallel	Connector				No
Runway Markings	Basic	Non-precision				Yes
Approach	Maintain Existing	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	16	No. of based aircraft hangar spaces:	42	Yes
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	3,600 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.68. Metropolis Municipal

Airport Information	
Airport Name	Metropolis Municipal
Associated City	Metropolis
FAA ID	M30
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	4,002 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	No				N/A
Taxiway	Partial Parallel	Full Parallel				No
Runway Markings	Basic	Basic				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	No				No
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	8	No. of based aircraft hangar spaces:	19	Yes
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	1,650 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.69. Monmouth Municipal

Airport Information	
Airport Name	Monmouth Municipal
Associated City	Monmouth
FAA ID	C66
IASP Airport Role	Illinois Basic
Primary Runway	03/21

<table>
<tr><th>Airfield</th><th>Illinois Basic Objective</th><th colspan="2">Existing Conditions</th><th>Meets Objective?</th></tr>
<tr><td>ARC</td><td>A-I/B-I</td><td colspan="2">B-II</td><td>Yes</td></tr>
<tr><td>Primary Runway Length</td><td>Maintain Existing</td><td colspan="2">2,899 ft</td><td>Yes</td></tr>
<tr><td>Primary Runway Width</td><td>60 ft</td><td colspan="2">60 ft</td><td>Yes</td></tr>
<tr><td>Primary Runway Surface</td><td>Paved</td><td colspan="2">Paved</td><td>Yes</td></tr>
<tr><td>Skid Treatment (Groove/PFC)</td><td>Not an Objective</td><td colspan="2">No</td><td>N/A</td></tr>
<tr><td>Taxiway</td><td>Partial Parallel</td><td colspan="2">Connector</td><td>No</td></tr>
<tr><td>Runway Markings</td><td>Basic</td><td colspan="2">Basic</td><td>Yes</td></tr>
<tr><td>Approach</td><td>Maintain Existing</td><td colspan="2">Non-precision</td><td>Yes</td></tr>
<tr><td>ALS</td><td>Not an Objective</td><td colspan="2">No</td><td>N/A</td></tr>
<tr><td>Rotating Beacon</td><td>Yes</td><td colspan="2">Yes</td><td>Yes</td></tr>
<tr><td>VGSIs</td><td>Yes</td><td colspan="2">Yes</td><td>Yes</td></tr>
<tr><td>REILs</td><td>Yes</td><td colspan="2">No</td><td>No</td></tr>
<tr><td>Runway Lighting</td><td>Yes</td><td colspan="2">Yes</td><td>Yes</td></tr>
<tr><td>Weather Reporting (ASOS/AWOS)</td><td>Not an Objective</td><td colspan="2">No</td><td>N/A</td></tr>
<tr><td>Taxiway Lighting</td><td>Yes</td><td colspan="2">Yes</td><td>Yes</td></tr>
<tr><td rowspan="2">Covered Aircraft Storage</td><td rowspan="2">Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft</td><td>40% of based aircraft fleet: 4</td><td>No. of based aircraft hangar spaces: 10</td><td>Yes</td></tr>
<tr><td colspan="2">0 transient hangars</td><td>No</td></tr>
<tr><th>Landside Facilities</th><th>Illinois Basic Objective</th><th colspan="2">Existing Conditions</th><th>Meets Objective?</th></tr>
<tr><td rowspan="2">Terminal (GA)</td><td rowspan="2">500 sq ft</td><td>Minimum GA terminal square footage</td><td>GA terminal square footage</td><td rowspan="2">Yes</td></tr>
<tr><td>500 sq ft</td><td>16,400 sq ft</td></tr>
<tr><td>Snow Removal Equipment</td><td>Yes, or through mutual aid agreement</td><td colspan="2">Yes, through mutual aid agreement</td><td>Yes</td></tr>
<tr><td>Dedicated Maintenance/SRE Storage Building</td><td>Yes - if SRE available
No - if SRE unavailable</td><td colspan="2">No</td><td>Aiport-owned SRE unavailable</td></tr>
<tr><th>Airport Services</th><th>Illinois Basic Objective</th><th colspan="2">Existing Conditions</th><th>Meets Objective?</th></tr>
<tr><td>24-Hour Fuel (AvGas or JetA)</td><td>Yes</td><td colspan="2">Yes</td><td>Yes</td></tr>
<tr><td>Jet A Fuel</td><td>Not an Objective</td><td colspan="2">No</td><td>N/A</td></tr>
<tr><td>Aircraft De-Icing</td><td>Not an Objective</td><td colspan="2">No</td><td>N/A</td></tr>
<tr><td>Pilot Area/Flight Planning Area</td><td>Yes</td><td colspan="2">Yes</td><td>Yes</td></tr>
</table>

Figure A.70. Mount Sterling Municipal

Airport Information	
Airport Name	Mount Sterling Municipal
Associated City	Mount Sterling
FAA ID	I63
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	5,905 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes				N/A
Taxiway	Partial Parallel	Partial Parallel				Yes
Runway Markings	Basic	Non-precision				Yes
Approach	Maintain Existing	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	4	No. of based aircraft hangar spaces:	8	Yes
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	No
		500 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes, through mutual aid agreement		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

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Figure A.71. Edgar County

Airport Information	
Airport Name	Edgar County
Associated City	Paris
FAA ID	PRG
IASP Airport Role	Illinois Basic
Primary Runway	09/27

Airfield	Illinois Basic Objective	Existing Conditions		Meets Objective?
ARC	A-I/B-I	B-II		Yes
Primary Runway Length	Maintain Existing	4,501 ft		Yes
Primary Runway Width	60 ft	75 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Not an Objective	No		N/A
Taxiway	Partial Parallel	Connector		No
Runway Markings	Basic	Non-precision		Yes
Approach	Maintain Existing	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes		N/A
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 9	No. of based aircraft hangar spaces: 18	Yes
		0 transient hangars		No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	7,700 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.72. Pittsfield Penstone Municipal

Airport Information	
Airport Name	Pittsfield Penstone Municipal
Associated City	Pittsfield
FAA ID	PPQ
IASP Airport Role	Illinois Basic
Primary Runway	13/31

Airfield	Illinois Basic Objective	Existing Conditions	Meets Objective?
ARC	A-I/B-I	C-I	Yes
Primary Runway Length	Maintain Existing	4,000 ft	Yes
Primary Runway Width	60 ft	60 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Not an Objective	No	N/A
Taxiway	Partial Parallel	Connector	No
Runway Markings	Basic	Non-precision	Yes
Approach	Maintain Existing	Non-precision	Yes
ALS	Not an Objective	No	N/A
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	No	No
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes	N/A
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 4; No. of based aircraft hangar spaces: 11	Yes
		0 transient hangars	No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	1,575 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	No	No

ILLINOIS AVIATION SYSTEM PLAN

Figure A.73. Rantoul National Aviation Center-Frank Elliot Field

Airport Information	
Airport Name	Rantoul National Aviation Center-Frank Elliott Field
Associated City	Rantoul
FAA ID	TIP
IASP Airport Role	Illinois Basic
Primary Runway	09/27

Airfield	Illinois Basic Objective	Existing Conditions	Meets Objective?
ARC	A-I/B-I	B-II	Yes
Primary Runway Length	Maintain Existing	5,001 ft	Yes
Primary Runway Width	60 ft	75 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Not an Objective	No	N/A
Taxiway	Partial Parallel	Connector	No
Runway Markings	Basic	Non-precision	Yes
Approach	Maintain Existing	Non-precision	Yes
ALS	Not an Objective	No	N/A
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes	N/A
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 6 No. of based aircraft hangar spaces: 25	Yes
		0 transient hangars	No

Landside Facilities	Illinois Basic Objective	Existing Conditions	Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage: 500 sq ft GA terminal square footage: 47,520 sq ft	Yes
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes	Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No	No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.74. Salem Leckrone

Airport Information	
Airport Name	Salem-Leckrone
Associated City	Salem
FAA ID	SLO
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions	Meets Objective?
ARC	A-I/B-I	C-II	Yes
Primary Runway Length	Maintain Existing	4,098 ft	Yes
Primary Runway Width	60 ft	75 ft	Yes
Primary Runway Surface	Paved	Paved	Yes
Skid Treatment (Groove/PFC)	Not an Objective	No	N/A
Taxiway	Partial Parallel	Partial Parallel	Yes
Runway Markings	Basic	Non-precision	Yes
Approach	Maintain Existing	Non-precision	Yes
ALS	Not an Objective	No	N/A
Rotating Beacon	Yes	Yes	Yes
VGSIs	Yes	Yes	Yes
REILs	Yes	Yes	Yes
Runway Lighting	Yes	Yes	Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes	N/A
Taxiway Lighting	Yes	Yes	Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 4; No. of based aircraft hangar spaces: 28	Yes
		100% available capacity for transient aircraft	Yes

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	1,962 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	No	No

Figure A.75. Tri-Township

Airport Information	
Airport Name	Tri-Township
Associated City	Savanna
FAA ID	SFY
IASP Airport Role	Illinois Basic
Primary Runway	13/31

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	4,001 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes				N/A
Taxiway	Partial Parallel	Connector				No
Runway Markings	Basic	Non-precision				Yes
Approach	Maintain Existing	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	No				No
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	4	No. of based aircraft hangar spaces:	0	No
		0 transient hangars				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	No
		500 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	No
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	No	No

Figure A.76. Taylorville Municipal

Airport Information	
Airport Name	Taylorville Municipal
Associated City	Taylorville
FAA ID	TAZ
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions				Meets Objective?
ARC	A-I/B-I	B-II				Yes
Primary Runway Length	Maintain Existing	4,001 ft				Yes
Primary Runway Width	60 ft	75 ft				Yes
Primary Runway Surface	Paved	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes				N/A
Taxiway	Partial Parallel	Full Parallel				No
Runway Markings	Basic	Non-precision				Yes
Approach	Maintain Existing	Non-precision				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Yes	Yes				Yes
VGSIs	Yes	Yes				Yes
REILs	Yes	Yes				Yes
Runway Lighting	Yes	Yes				Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes				N/A
Taxiway Lighting	Yes	Yes				Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet:	9	No. of based aircraft hangar spaces:	22	Yes
		No transient hangar capacity				No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	8,500 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.77. Vandalia Municipal

Airport Information	
Airport Name	Vandalia Municipal
Associated City	Vandalia
FAA ID	VLA
IASP Airport Role	Illinois Basic
Primary Runway	18/36

Airfield	Illinois Basic Objective	Existing Conditions		Meets Objective?
ARC	A-I/B-I	B-II		Yes
Primary Runway Length	Maintain Existing	3,751 ft		Yes
Primary Runway Width	60 ft	100 ft		Yes
Primary Runway Surface	Paved	Paved		Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes		N/A
Taxiway	Partial Parallel	Connector		No
Runway Markings	Basic	Non-precision		Yes
Approach	Maintain Existing	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Yes	Yes		Yes
VGSIs	Yes	Yes		Yes
REILs	Yes	Yes		Yes
Runway Lighting	Yes	Yes		Yes
Weather Reporting (ASOS/AWOS)	Not an Objective	Yes		N/A
Taxiway Lighting	Yes	Yes		Yes
Covered Aircraft Storage	Hangars for 40% of based aircraft fleet and at least 25% available capacity for transient aircraft	40% of based aircraft fleet: 7	No. of based aircraft hangar spaces: 28	Yes
		0 transient hangars		No

Landside Facilities	Illinois Basic Objective	Existing Conditions		Meets Objective?
Terminal (GA)	500 sq ft	Minimum GA terminal square footage	GA terminal square footage	Yes
		500 sq ft	6,460 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		No

Airport Services	Illinois Basic Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	Yes
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	Yes

Figure A.78. Galt Field

Airport Information	
Airport Name	Galt Field
Associated City	Greenwood/Wonder Lake
FAA ID	10C
IASP Airport Role	Illinois Unclassified
Primary Runway	09/27

Airfield	Illinois Unclassified Objective	Existing Conditions				Meets Objective?
ARC	A/B-I Small Aircraft	A-I				Yes
Primary Runway Length	Maintain Existing	2,898 ft				Yes
Primary Runway Width	60 ft	50 ft				No
Primary Runway Surface	Maintain Existing	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	No				N/A
Taxiway	Maintain Existing	Partial Parallel				Yes
Runway Markings	Maintain Existing	Non-precision				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Not an Objective	Yes				N/A
VGSIs	Not an Objective	No				N/A
REILs	Not an Objective	No				N/A
Runway Lighting	Not an Objective	No				N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Not an Objective	No				N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet:	38	No. of based aircraft hangar spaces:	99	Yes
		0 transient hangars				Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		5,000 sq ft	864 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	N/A
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	N/A

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Figure A.79. Dacy

Airport Information	
Airport Name	Dacy
Associated City	Harvard
FAA ID	0C0
IASP Airport Role	Illinois Unclassified
Primary Runway	09/27

Airfield	Illinois Unclassified Objective	Existing Conditions				Meets Objective?
ARC	A/B-I Small Aircraft	A-I				Yes
Primary Runway Length	Maintain Existing	3,589 ft				Yes
Primary Runway Width	60 ft	105 ft				Yes
Primary Runway Surface	Maintain Existing	Turf				Yes
Skid Treatment (Groove/PFC)	Not an Objective	N/A				N/A
Taxiway	Maintain Existing	Connector				Yes
Runway Markings	Maintain Existing	None				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Not an Objective	No				N/A
VGSIs	Not an Objective	No				N/A
REILs	Not an Objective	No				N/A
Runway Lighting	Not an Objective	No				N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Not an Objective	No				N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet:	42	No. of based aircraft hangar spaces:	45	Yes
		50% available capacity for transient aircraft				Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		2,500 sq ft	Unknown	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	No	N/A
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	N/A

Figure A.80. Paxton

Airport Information	
Airport Name	Paxton
Associated City	Paxton
FAA ID	1C1
IASP Airport Role	Illinois Unclassified
Primary Runway	18/36

Airfield	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
ARC	A/B-I Small Aircraft	A-I		Yes
Primary Runway Length	Maintain Existing	3,409 ft		Yes
Primary Runway Width	60 ft	50 ft		No
Primary Runway Surface	Maintain Existing	Paved		Yes
Skid Treatment (Groove/PFC)	Not an Objective	No		N/A
Taxiway	Maintain Existing	N/a		Yes
Runway Markings	Maintain Existing	Non-precision		Yes
Approach	Maintain Existing	Non-precision		Yes
ALS	Not an Objective	No		N/A
Rotating Beacon	Not an Objective	No		N/A
VGSIs	Not an Objective	Yes		N/A
REILs	Not an Objective	Yes		N/A
Runway Lighting	Not an Objective	No		N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No		N/A
Taxiway Lighting	Not an Objective	No		N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet: 6	No. of based aircraft hangar spaces: 7	Yes
		0 transient hangars		Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		750 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes, or through mutual aid agreement	No		No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	N/A
Jet A Fuel	Not an Objective	Yes	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	N/A

Figure A.81. Poplar Grove

Airport Information	
Airport Name	Poplar Grove
Associated City	Poplar Grove
FAA ID	C77
IASP Airport Role	Illinois Unclassified
Primary Runway	12/30

Airfield	Illinois Unclassified Objective	Existing Conditions				Meets Objective?
ARC	A/B-I Small Aircraft	A/B-I				Yes
Primary Runway Length	Maintain Existing	3,773 ft				Yes
Primary Runway Width	60 ft	50 ft				No
Primary Runway Surface	Maintain Existing	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	Yes				N/A
Taxiway	Maintain Existing	Full Parallel				Yes
Runway Markings	Maintain Existing	Basic				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Not an Objective	Yes				N/A
VGSIs	Not an Objective	No				N/A
REILs	Not an Objective	No				N/A
Runway Lighting	Not an Objective	No				N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Not an Objective	No				N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet:	303	No. of based aircraft hangar spaces:	226	No
		0 transient hangars				Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		8,563 sq ft	1,925 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	Yes		Yes
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	Yes		Yes

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	N/A
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	N/A

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Figure A.82. Schuy-Rush

Airport Information	
Airport Name	Schuy-Rush
Associated City	Rushville
FAA ID	5K4
IASP Airport Role	Illinois Unclassified
Primary Runway	09/27

Airfield	Illinois Unclassified Objective	Existing Conditions				Meets Objective?
ARC	A/B-I Small Aircraft	A-I				Yes
Primary Runway Length	Maintain Existing	3,565 ft				Yes
Primary Runway Width	60 ft	100 ft				Yes
Primary Runway Surface	Maintain Existing	Turf				Yes
Skid Treatment (Groove/PFC)	Not an Objective	N/A				N/A
Taxiway	Maintain Existing	N/a				Yes
Runway Markings	Maintain Existing	None				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Not an Objective	No				N/A
VGSIs	Not an Objective	No				N/A
REILs	Not an Objective	No				N/A
Runway Lighting	Not an Objective	No				N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Not an Objective	No				N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet:	4	No. of based aircraft hangar spaces:	2	No
		0 transient hangars				Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		125 sq ft	3,200 sq ft	
Snow Removal Equipment	Yes, or through mutual aid agreement	No		No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		**Aiport-owned SRE unavailable**

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	N/A
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	Yes	N/A

Figure A.83. Tuscola

Airport Information	
Airport Name	Tuscola
Associated City	Tuscola
FAA ID	K96
IASP Airport Role	Illinois Unclassified
Primary Runway	09/27

Airfield	Illinois Unclassified Objective	Existing Conditions				Meets Objective?
ARC	A/B-I Small Aircraft	A-I				Yes
Primary Runway Length	Maintain Existing	2,660 ft				Yes
Primary Runway Width	60 ft	30 ft				No
Primary Runway Surface	Maintain Existing	Paved				Yes
Skid Treatment (Groove/PFC)	Not an Objective	No				N/A
Taxiway	Maintain Existing	Turnaround				Yes
Runway Markings	Maintain Existing	None				Yes
Approach	Maintain Existing	Visual				Yes
ALS	Not an Objective	No				N/A
Rotating Beacon	Not an Objective	No				N/A
VGSIs	Not an Objective	No				N/A
REILs	Not an Objective	No				N/A
Runway Lighting	Not an Objective	Yes				N/A
Weather Reporting (ASOS/AWOS)	Not an Objective	No				N/A
Taxiway Lighting	Not an Objective	No				N/A
Covered Aircraft Storage	Maintain Existing	Based aircraft fleet:	3	No. of based aircraft hangar spaces:	10	Yes
		0 transient hangars				Yes

Landside Facilities	Illinois Unclassified Objective	Existing Conditions		Meets Objective?
Terminal (GA)	Maintain Existing	Minimum GA terminal square footage	GA terminal square footage	Yes
		775 sq ft	No GA Terminal Building	
Snow Removal Equipment	Yes, or through mutual aid agreement	No		No
Dedicated Maintenance/SRE Storage Building	Yes - if SRE available No - if SRE unavailable	No		Aiport-owned SRE unavailable

Airport Services	Illinois Unclassified Objective	Existing Conditions	Meets Objective?
24-Hour Fuel (AvGas or JetA)	Yes	Yes	N/A
Jet A Fuel	Not an Objective	No	N/A
Aircraft De-Icing	Not an Objective	No	N/A
Pilot Area/Flight Planning Area	Yes	No	N/A

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