

ISSUE BRIEF



KENTUCKY AVIATION

2011 Kentucky Grade: C+

Date: February 1, 2011

CURRENT CONDITIONS

Airports and those who depend on them have a quantitative economic impact on Kentucky. When airports aren't kept in working order, it negatively affects a broad array of services to our state, including military, healthcare, transportation of goods and services just to name a few.

Kentucky's aviation system was last evaluated by the ASCE Kentucky Section in 2003. At that time, a grade of C+ was assigned. The grade assigned to the nation's aviation system was a D, but Kentucky earned a C+ because additional funding was given to the major international airports in the state. Although the study has not been updated since 2003, Kentucky is still considered as C+.

Over the last seven years, Kentucky's aviation system has remained stable despite the challenge of Congress not reauthorizing the Airport Improvement Program (AIP) legislation, which expired in September 2007. A jet fuel tax was implemented in 2000 and went into effect in Kentucky in 2003. The tax was put into place to help support capital infrastructure needs at public airports across the state; however, that tax has since been capped within the state, reducing the amount of available funds.

There are currently 60 public-use airports in the state, a decrease from the 65 reported in 2003. Since the 2003 Kentucky Report Card, one airport closed due to lack of use, two closed due to maintenance issues and the remaining two transitioned to private use only. Of the 60 airport facilities in the state, seven are identified as commercial service airports, and just five have commercial service today.

Greater Cincinnati International Airport (CVG) is located in northern Kentucky and is the largest airport in the state. CVG is ranked by the Federal Aviation Administration (FAA) in the hub category of "medium" and enplanes more than 4.3 million passengers annually. Louisville International Airport at Standiford Field (SDF) is located in Louisville and fluctuates between being the smallest "medium" hub or the largest "small" hub at any given point with approximately 1.7 million annual enplanements. SDF is currently classified as a "small" hub status with the FAA and is also the home to the all-points domestic hub for United Parcel Service (UPS). Blue Grass Airport (LEX), located in Lexington, is also a "small" hub with nearly a half million enplanements annually. Barkley Regional Airport (PAH) in Paducah and Owensboro-Daviess County Airport (OWB) in Owensboro are the last of the primary airports in the state, both with a "non-hub" status. PAH enplanes nearly 20,000 annually, while OWB enplanes slightly more than 10,000 passengers each year. The remaining two commercial service

airports in the state are Bowling Green (BWG) and Somerset (SME). With less than 10,000 enplanements annually, these two facilities are classified as non-primary airports.

The size classification of an airport is important because it is directly tied to funding. A “non-hub” is an airport with less than 0.05% of the nation’s total number of passengers; a “small” airport is one with at least 0.05% but less than 0.25%; a “medium” airport is one with at least 0.25% but less than 1%; and a “large” airport has at least 1% of the nation’s total number of passengers.

The remaining 53 public-use airports in the state are listed as “general aviation” airports. The “general aviation” classification applies to an airport with fewer than 2500 annual passengers and is not used for commercial aviation. This airport type is the largest single group of airports in the system.

Of the 60 public-use airports in the state, all but one are equipped with hard paved surfaces for their runways and associated taxiways. Dawson Springs Airport has the only remaining turf runway in the state. CVG, SDF and LEX each maintain concrete runways and taxiways. The primary commercial service airports will utilize federal entitlement dollars generated from the FAA’s Airport Improvement Program (AIP) to assist with pavement remediation while the remaining airports will seek discretionary funding from the state to support their needs.

While maintenance of existing infrastructure at each of the airports is certainly of concern, the larger issue involves flight delays in the national airspace system (NAS). Since each airport feeds to other destinations, the ability for another airport to efficiently accept and turnaround aircraft is important to the NAS. Therefore, while the condition of paved surfaces is one of many vital components, the ability for aircraft to arrive and depart during inclement weather, and the navigational systems needed to support such activity, are also crucial. Forty-three of the 60 Kentucky airports support some level of navigational system to sustain other than visual approaches at the various airports. An example of this includes the localizer and the glideslope—both ground-based systems that use radar to assist aircraft in landing during inclement weather.

Economic Impacts

Kentucky airports have a total economic impact of nearly \$15 billion annually, yielding nearly 115,000 jobs. CVG and SDF airports account for more than 88 percent, or approximately \$13.25 billion, of the total economic impact annually. All airports in the state play a role in generating economic activity for their surrounding areas.

Both CVG and SDF have seen a dramatic increase in the construction of warehouses and other commercial buildings in close proximity to their airports. These are known as warehouse or “end-of-the-runway” service logistics. SDF, with its connection to UPS and Worldport, has seen a number of businesses locate to the Louisville area to be close to the Worldport facility. Comparably, CVG has seen a similar attraction from businesses with the DHL facility located on the airfield in northern Kentucky. In all, Kentucky’s airports have a quantifiable economic impact on the surrounding area. Some other benefits derived from airports include search and rescue, medical transportation/evacuation and military training.

Investment Needs

By 2025, the FAA anticipates completing its rollout of NextGen – the Next Generation Air Transportation System. NextGen is the transformation of the radar-based air traffic control system to a satellite-based system. The benefits are tremendous for both the FAA and the end-user. Benefits include a reduction in flight delays at the larger commercial service airports by an expected 21 percent and money saved from the reduction of fuel and emissions.

The implementation of NextGen is an evolutionary strategy. It will have taken nearly 25 years to roll out the technology and equipment, plus years of modeling and demonstration activities. The ability of the state's airports to support the NextGen initiative is critical. One of the first steps toward the NextGen evolution is nationwide automatic dependent surveillance – broadcast (ADS-B). The ADS-B is a radar system located within the airplanes themselves, allowing for real-time location identification between airplanes sharing the same airspace. While current ground-based radar information is updated every six to eight seconds, the plane-based radar (ADS-B) provides accurate location in less than one second. This means planes can take off and land at closer intervals, leading to the reduction in delays, fuel usage and emissions. ADS-B is expected to be complete by 2013. By 2020, aircraft flying in controlled airspace in the U.S. must be equipped with ADS-B avionics that broadcast their position. And while the implementation of NextGen will assist commercial service airports with improving capacity and reducing delays, money that has been saved by reducing delays can be applied to infrastructure at the general aviation facilities to help support their needs for replacement and rehabilitation of infrastructure.

Until NextGen is completely rolled out and the benefits realized, Kentucky airports could benefit today by considering an increase to the cap on the jet fuel tax. An increase in the tax would address funding gaps for projects and lessen the need to compete nationally for discretionary funds. This type of solid funding stream would enable Kentucky airports to plan and implement key replacement and rehabilitation projects.

Legislative Needs

In September 2007, the authorizing legislation for the FAA's AIP expired and since that time, 17 extensions have been passed by Congress. The extensions represent a discontinuous cycle of funding for those airports eligible for AIP entitlement funding. This irregularity leads to gaps in potential discretionary funding for the remaining general aviation airports in the state. Congress must focus on approving legislation to return stability to the AIP program and funding throughout the NAS.

At the state level, the consideration of an increase to the cap on the jet fuel tax would improve the funding position of many of the general aviation facilities.

RECOMMENDATIONS SUPPORTED BY ASCE

The following recommendations are supported by ASCE:

- Support for an effort by Congress to approve legislation for the FAA, including an increase in the passenger facility fee to support the AIP.

- Consider increasing the fuel tax cap on air carrier/transport companies, allowing the jet fuel tax to support aviation facilities within the state.
- Continue to improve the facilities at existing airports and consider opportunities to expand air service to areas that can sustain such development.
- Continue to coordinate the six-year roadway plan with the six-year aviation plan to allow more efficient transportation of people, goods and services.

GRADE

The nation's aviation system received a grade of D in the 2009 *Report Card for America's Infrastructure*. ASCE noted that airport capacity has increased only one percent in the past 10 years, while air traffic has surpassed pre-9/11 levels. Additionally, commercial service airports are faced with an additional challenge of accommodating the new larger group VI aircraft, such as the Airbus A-380 and the Boeing 747-800.

Certainly in late 2008 and 2009, the state of the country's economy yielded dramatic decreases in enplanements for most of the nation's airports; many of those facilities started rebounding in 2010. The FAA is reporting forecast projections for enplanements to grow by 3.6 percent annually through 2030. This additional growth, coupled with the need for enhanced facilities to support group VI aircraft, will certainly impact the capacity and efficiency of the NAS.

Funding for general aviation airports in the state continues to remain under-funded as compared to projected needs. Funding from the American Recovery and Reinvestment Act of 2009 (ARRA) provided some level of assistance to a few general aviation facilities in the state, but this was a one-time infusion of funding.

Beyond the ARRA investment, the jet fuel tax funds have not been able to keep up with the needs of general aviation airports. Commercial service airports continue to maintain good facilities that support their respective communities and local economic development endeavors. An infrastructure grade alone would certainly be higher, but coupled with the uncertainty of the AIP legislation, the implementation and rollout of NextGen, and the added burden of improvements for group VI aircraft, collectively rate a grade of C+.

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SOURCES

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