

The Funding Factor: Planning Is Key in Keeping Airports in Business

By Dave Hadel, PE

When federal airport funding was established after World War II, the funding was supported by the general fund of the U.S. Treasury. At the time, funds were sufficient for the airports being established to meet the demand for increased public air traffic.

Funding requirements have changed significantly over the years. Today, the airports within the National Plan of Integrated Airport Systems (NPIAS) are funded in part through the Federal Aviation Administration (FAA) Airport Improvement Program. As the airport sponsor's engineer, Burns & McDonnell is helping these airports identify potential projects and develop program cost estimates. This information is submitted to the FAA for inclusion into the sponsor's Airport Capital Improvement Program.

These federal funds are collected through user fees, fuel taxes and other sources. These funds are converted to grants dedicated to aviation improvements. Distribution of these funds is allocated in multiple categories, including safety, runways, taxiways, aprons, vertical infrastructure and fueling. In general, large and medium hub airport projects are funded at a 75-25 ratio. Seventy-five percent of the project will be funded from federal grants. The sponsor is responsible for the remaining 25 percent. For small primary, reliever and general aviation airports, the federal ratio is increased to 95-5.

Regardless of airport size, the business of aviation requires continual upkeep. Cost is an important consideration of maintenance and modernization. Maximizing value added and justifying costs are the challenges every airport program faces. The FAA requires sponsors to provide a benefit-cost or life-cycle cost analysis for each project. It is the sponsor's responsibility to include these studies as part of every grant received.

Airports large and small may choose to have outside assistance in matching the needed improvements with the available funding in order to optimize available money. The airport's staff expertise can be augmented to ensure all necessary projects are brought to light. Burns & McDonnell, for example, helps prepare grant requests and match needed improvements with solutions that work with grant timelines and restraints.

Stretching Dollars with Technology

Burns & McDonnell is combining traditional methods with increasing uses of today's technology to help airports save time and money on pavement management programs. By involving our geographic information systems (GIS) professionals in on-site data collection, we are modernizing a traditional system and producing better results.

This field effort includes making visual observations of the existing concrete and asphalt pavements. Characteristics recorded may include cracks, ruts, raveling, joint spalling, shattered panels and a host of other discernable pavement conditions. The field data collected and photographed at the airport is sent back to our offices electronically for real-time reviews. Issues can then be addressed while employees are still in the field, for a more efficient use of time and resources — resulting in a better product for less cost.

This eliminates the need for more site visits and streamlines data collection from the field to the office. The timely and cost-effective approach makes pavement management reports more efficient, and the data can be repurposed for historical review and other GIS uses.

1940s

1940s

Many commercial airlines and airports go offline to commercial traffic to support World War II military efforts

Transatlantic route is the world's most traveled air route

1950



1952

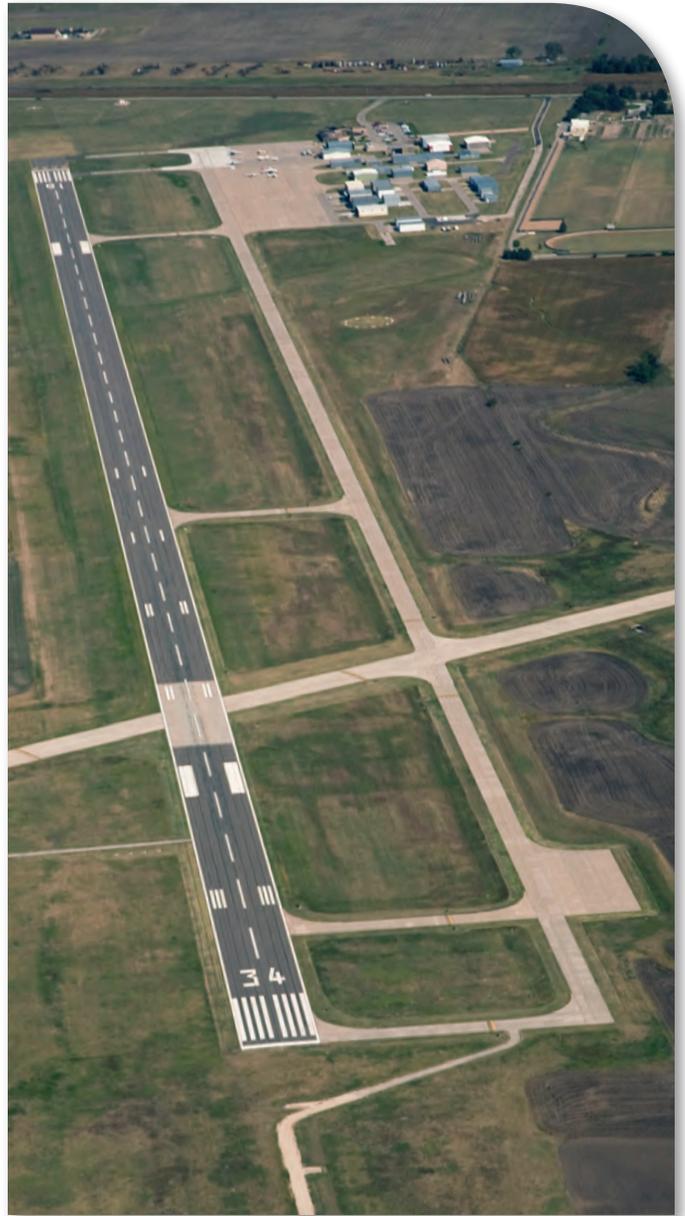
De Havilland Comet becomes the world's first commercial jet airliner



In fiscal year 2008, the FAA Airport Improvement Program funded more than 2,400 new grants and 777 grant amendments totaling \$3.5 billion.



Burns & McDonnell has assisted with planning and execution of projects from paving replacement to terminal renovations at Kansas City International Airport.



Smaller airfields, such as the Hays Regional Airport in Kansas, rely on the FAA Airport Improvement Program for project funding.

1950s

1958

Pan American initiates its New York to London route with the Boeing 707

1958

Today's second busiest airport internationally, Beijing Capital International Airport, opens

1959

American Airlines offers first domestic jetliner flights with routes from New York to Los Angeles