

## INTRODUCTION

This is an introduction and summary of the technical report of the Strategic Master Plan Update Study prepared during 1998 and 1999 for James M. Cox Dayton International Airport (DAY). The goal of this master plan is to assure that the airport and region are significant players in the 21<sup>st</sup> century global economy. This report addresses the overall airfield and ground transportation capacity enhancements deemed necessary in order to meet the forecast demand at DAY. Other specific airport development needs, such as terminal, auto parking, and some support facilities will be addressed in separate reports.

The findings of this report demonstrate an immediate need for increased runway capacity. This requirement is due to the current air cargo demand and its anticipated future growth, in conjunction with an anticipated annual two percent increase in passenger growth. Emery Worldwide has its principal domestic hub at DAY and most of Emery's domestic air freight transits through the DAY sort facility. Emery is currently experiencing operational delays, which will become worse as a result of an anticipated average annual growth of 4.7 percent in total cargo tonnage over the next 20 years. This will result in cargo operations increasing at a rate of 6.2 percent annually. Much of this long-term projected growth is due to the United States Postal Service (USPS) expanding its use of contract air mail handlers. Emery is expected to pursue and win a significant number of these contracts, which will significantly expand their daytime operations at DAY.

DAY has only one runway (6L/24R) that is of sufficient length (10,900 feet) to serve the majority of cargo departures. This limits Emery and other air cargo operators to a single runway for departure. A second parallel runway of sufficient length is needed to accommodate the existing and future aircraft demand. This master plan studies the possibility of either extending Runway 6R or constructing a new parallel runway in order to achieve the needed airfield capacity. Based on simulation analysis and the forecast demand, additional runway capacity will be needed in the 2003 timeframe. It is anticipated that a third parallel runway will be needed sometime after 2015 to accommodate the increased demand. Extending and improving the crosswind Runway 18/36 also increases airfield capacity and can postpone the need for three parallel runways. Additionally, Emery's sort building, aircraft apron, aircraft maintenance hangar, and support facilities will require expansion to meet forecast demand over the 20 year planning period.

DAY is the 10th largest cargo hub in the United States and 19th largest in the world. The airport passenger traffic and Emery cargo hub exert a positive impact on the economy of the local region. DAY proposes to undertake what may be the single largest economic development plan in the history of the Miami Valley. There are currently 16,600 direct regional jobs as a result of the airport with an annual \$1.3 billion economic impact. The Emery cargo hub currently provides 4,200 jobs.

Providing adequate runway capacity to accommodate existing operations along with future air cargo and commercial passenger traffic growth will continue to facilitate the economic development of the region. If adequate capacity is provided, the number of direct regional jobs is anticipated to increase to 36,500, with an annual economic impact of \$2.8 billion by 2018. The Emery cargo hub is projected to provide over 10,000 jobs by 2018.

The region is recognizing the need to plan for the compatible growth of the local air transportation system and adjacent land use development. A separate noise study (FAR Part 150) has been initiated at DAY. Furthermore, an environmental study of these proposed capacity enhancements is recommended to be performed.

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