

Classification of Runway Configurations for Capacity Analysis of Airports Serving Small Aircraft

Hui Jeong Ha

Department of City and Regional Planning Section
Knowlton School of Architecture
The Ohio State University
Columbus, OH, USA
ha.212@osu.edu

Seth B. Young (Adviser)

Dept. of Civil, Environmental, and Geodetic
Engineering
Center for Aviation Studies
The Ohio State University
Columbus, OH, USA
young.1460@osu.edu

Abstract— In this paper we describe the development and application of GIS-based algorithms to automate and standardize the process of classifying runway configurations for United States' airports primarily serving small aircraft. Runway configurations are detected using data sources from the National Flight Data Center (NFDC). Identified runway configurations are then categorized by a defined classification schema through geocoding algorithms using geoinformatics software. The automated classification of thousands of such runway geometries will serve as an important input to developing capacity models specific to these smaller airports.