A SYSTEMS ANALYSIS PROCEDURE FOR
ESTIMATING THE CAPACITY OF AN AIRPORT:
A SELECTED BIBLIOGRAPHY

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Research Memo 24
August 1975

The University of Texas at Austin
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by

Chang-Ho Park
Research Assistant

Edward V. Chambers, III
Research Assistant

William J. Dunlay, Jr.
Assistant Professor
Department of Civil Engineering

RESEARCH MEMO

Prepared for
U. S. Department of Transportation

by

Council for Advanced Transportation Studies
THE UNIVERSITY OF TEXAS AT AUSTIN
August 1975
Introduction

This bibliography was prepared as part of a research project entitled as above conducted by The University of Texas at Austin and sponsored by the U. S. Department of Transportation, Office of University Research under Contract DOT-OS-50232. The objective of this research project is to develop a systems analysis procedure for estimating airport capacity in which the capacities of the individual components of an airport are evaluated and compared.

Only that part of the airport system between the airport boundary on the landside and the terminal air traffic control boundary on the airside is considered. In addition, the list is limited to references which discuss processing facilities for aircraft, air passengers, visitors, baggage and automobiles. Air cargo is treated only to the extent that it affects the operation of passenger aircraft. Emphasis has been placed on the landside components of an airport, although most of the major airside references are included. The above limitations on the scope of the bibliography derive from the above objective of this research project.

Care has been taken in the preparation of this bibliography to include all references pertinent to our research objective. Many of these references have been obtained and reviewed by the project staff. Others (indicated by an asterisk) are presently being sought. During the course of research those references on the list considered to be significant will be annotated and a final version of the bibliography will be prepared. The final version will include a detailed index by subject and airport component, and will be annotated. In that form, the bibliography will be of great interest to airport planners and other researchers in the field. Therefore, we will attempt to publish the final bibliography through the Transportation Systems Center, so that it receives as wide a distribution as possible.
Organization of Bibliography

The references contained in this bibliography are listed and numbered in alphabetical order by author. A subject index is provided which indicate the numbers of references which cover particular functional and physical components of the airport as well as various analysis techniques that have been applied to estimating airport capacity and level of service. In the final version of the bibliography, each reference will be coded according to the particular components and analysis techniques that it includes. These indices along with the annotations will enhance the utility of the final version of the bibliography.
SELECTED BIBLIOGRAPHY ON AIRPORT CAPACITY


32. "Baggage Handling Costs--Can They Ever Be Reduced?" Airport Service Management, August 1974, pp. 22.


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104. Edwards, Jack W., A Look at the Factors Which Affect Gate Requirements at Airports, Graduate Report, ITTE, University of California, Berkeley, CA, August 1967.


Highway Research Board, Access to Airports, HRB Record 274.


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Kaneko, E. T., Passenger Enplaning and Deplaning Characteristics, Graduate Report, ITTE, University of California, Berkeley, August 1967.


*191. King, J. Kenneth and V. A. Breindl, Seattle-Tacoma International Airport and Its Impact Upon the Economy of King County, Seattle Port Commission, 1962.


254. Oliver, R. M., Delays to Aircraft Serviced by the Glide-Path, ITTE, Berkeley, California.


301. Shaffer, J. H., "What I Think About Airport Terminals," FAA.


304. Smith, Wilbur and Associates, Airport Access, Bay Area Study for Aviation Requirements (BASAR), San Francisco, California, June 1970.


U. S. Federal Aviation Administration, Airport Planning and Airport Layout Plans, AC 150/5310-2, September 1968.


U. S. Federal Aviation Administration, Airport Terminal Buildings, September 1969


U. S. Federal Aviation Administration, Aviation Demand and Airport Facility Requirements for Medium Air Transportation Hubs through 1980, U. S. Clearinghouse, Springfield, VA, 1969.


357. U. S. Federal Aviation Administration, Planning the Metropolitan Airport System, AC 150/5070-5.

358. U. S. Federal Aviation Administration, Procedures for Control of Aircraft Following Heavy Jet Aircraft, Order 7110.29.


360. U. S. Federal Aviation Administration, Regional Air Carrier Airport Planning, AC 150/5090-1, February 1967.

361. U. S. Federal Aviation Administration, Runway/Taxiway Widths and Clearances for Airline Airports, AC 150/5330-2A.


363. U. S. Federal Aviation Administration, Terminal Air Traffic Control, Handbook 7110.8C.


366. Van Wyen, Harvey H., A Look at Airplane Arrival and Departure Maneuvering Times in the Gate and Apron Areas, Graduate Report, ITTE, University of California, Berkeley, August 1968.


A subject index for the references in this bibliography is summarized in Table 1. The four basic subjects by which references have been classified are (1) access, (2) passenger processing, (3) baggage and (4) the airside. These basic categories are further broken down into individual components as shown in the table.

In addition to the above four basic categories, we have found it useful to include four other major subject classifications. The first, *general discussion*, includes references which treat various combinations of the above basic subjects in a very general way. The second additional classification, *passenger/air interface* includes references which discuss various aspects of the interface between the landside and the airside of an airport. *Miscellaneous* includes subjects that affect the capacity of the airport, but which do not include the actual physical or operational components on the airport system. The fourth added category, *techniques and concepts*, includes references which discuss particular concepts and analysis techniques as applied to estimating the capacity of an airport or airport components.

It is important to note that a particular reference number may appear under more than one subject classification heading. For example, a reference may attempt to cover all airport components, in which case its number would appear under each of the major subject headings.

This subject index will help guide our literature search as we take up individual topics in the subsequent stages of this research. It will also be helpful to others working in the area of airport capacity analysis.
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**Table 1**
THE AUTHORS

Chang-Ho Park is a graduate student working toward a Ph. D. degree in Civil Engineering and a Research Assistant for the Council for Advanced Transportation Studies. He received his BSCE degree from Seoul National University in 1970 and his Masters degree from the University of California, Berkeley in 1971.

Edward V. Chambers, III is a graduate student working toward a M.S. degree in Civil Engineering and a Research Assistant for the Council for Advanced Transportation Studies. He received his BSCE degree from The University of Texas at Austin in 1975.

William J. Dunlay, Jr. has been Assistant Professor of Civil Engineering since January 1974. He completed his BSCE and MS degrees at The Pennsylvania State University in 1965 and 1970, respectively, and his Ph. D. degree at The University of California, Berkeley in 1973. His experience includes work as a highway engineer with the Federal Highway Administration; a research engineer for Federal Aviation Administration; an Instructor at The Pennsylvania State University; a Consultant with DeLeuw, Cather & Co., and Peat, Marwick, Mitchell, & Co.; and a Research Assistant at the University of California, Berkeley.
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