Synthesis of Information Related to Airport Practices

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AIRPORT COOPERATIVE RESEARCH PROGRAM
Sponsored by the Federal Aviation Administration

Research Results Digest 1

SYNTHESIS OF INFORMATION RELATED TO AIRPORT PRACTICES

A staff digest of the progress and status of ACRP Project 11-03, "Synthesis of Information Related to Airport Practices," for which the Transportation Research Board is the agency conducting the research. Individual studies for the project are managed by Gail Staba, Senior Program Officer, and Jon Williams, Manager, Synthesis Studies, serving under the Studies and Special Programs Division of the Board, Stephen R. Godwin, Director.

INTRODUCTION

Airport administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to the airport industry. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and making it available to the entire airport community, the Airport Cooperative Research Program authorized the Transportation Research Board to undertake a continuing study. This study, ACRP Project 11-03, "Synthesis of Information Related to Airport Practices," searches out and synthesizes useful knowledge from all

Suggestions for synthesis topics may be sent to the ACRP Manager at any time by contacting the Cooperative Research Programs Staff, Transportation Research Board, 500 Fifth Street, NW, Washington, D.C. 20001. You can also submit your recommendations at: **http://www.trb.org/Studies/ Synthesis/Syntheses.asp** "Suggest an ACRP Topic." Topics suggested must be accompanied by a brief (one or two paragraphs) scope statement including a discussion of the problem. A title (preferably 10 words or less) and the name and affiliation of the submitter are also necessary. Identification of information sources would also be appreciated. The ACRP Project Panel meets each year to make the final selections. To be considered at the next annual meeting, all submissions should be received by September 8, 2007. If a topic is not selected, the problem statement must be resubmitted the following year to be reconsidered.

Interested in writing a synthesis? For details, see the Synthesis homepage (address above) under "New Topics."

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available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an ACRP report series, *Synthesis of Airport Practice.*

THE SYNTHESIS PROGRAM

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be most successful in resolving specific problems.

To develop these syntheses in a comprehensive manner and to ensure inclusion of significant knowledge, TRB employs a consultant to gather and analyze available information from numerous sources, including airport operations agencies. A panel of experts in the subject area is established to guide the consultant in organizing and evaluating the data collected on each topic and to review the synthesis report.

For each topic the project objectives are (1) to locate and assemble documented information; (2) to learn what practice has been used for solving or alleviating the problems; (3) to identify all ongoing research; (4) to learn what problems remain largely unsolved; (5) to organize, evaluate, and document the useful information that is acquired; and (6) to disseminate the synthesis information to all who might benefit from it.

Each synthesis is an immediately useful document that records practices that were acceptable within the limitations of the knowledge available at the time of its preparation. New knowledge can be expected to be added to that which is now at hand and eventually the synthesis may need to be updated or redone. The readers and users of the syntheses are in the best position to know when this has occurred. Whenever you believe that a synthesis should be updated, it would be appreciated if you would contact TRB and propose a synthesis update by contacting the ACRP Manager, Transportation Research Board, 500 Fifth Street, NW, Washington D.C. 20001.

Studies in Progress and Planned for 2007

Work is currently under way on the topics listed in Table 1. Topics selected for the 2007 program are

Table 1 ACRP SYNTHESIS STUDIES—In Progress as of December 2006

No.	Title
S01-01	Innovative Finance and Alternative Sources of Revenue for Airports
S03-01	Aviation Forecasting Methodologies
S03-02	Airport Ground Access Mode Choice Models
S04-01	Safety Management and Security Practices for Small and General Aviation Airports
S10-01	Counting Aircraft Operations at Small and Non-Towered Airports

listed in Table 2. Questions on these topics should be addressed to the project study manager, Gail Staba, by e-mail at gstaba@nas.edu, or by phone at 202-334-2116, or the Synthesis Study Manager, Jon Williams by e-mail at jwilliams@nas.edu, or by phone at 202-334-3245.

Selection of Topics

ACRP Project Panel 11-03 meets each year to select topics for study using funds from the upcoming fiscal year. The membership of this committee is given in Table 3. Current funding allows for initiation of about five syntheses per year. These, plus some alternate topics, are selected by the committee at its annual project meeting.

The following factors are considered in the selection process for synthesis topics:

- The topic should address a problem that is widespread enough to generate broad interest in the synthesis.

Table 2 ACRP SYNTHESIS STUDIES— 2007 Projects

No.	Title
S02-01	Effects of Aircraft Noise
S02-02	Sustainable Facilities and Practices
S03-03	Airport Economic Impact Methods and Models
S10-02	Common-Use Facilities and Practices at Airports
S10-03	Use and Impact of Airport Pavement Deicing Products

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Table 3 ACRP PROJECT PANEL 11-03

	Name	Affiliation
Chair	Burr Stewart	Port of Seattle
Member	Gary C. Cathey	Caltrans
Member	Kevin C. Dolliole	Lambert–St. Louis International Airport
Member	Berta Fernandez	Landrum & Brown
Member	Julie Kenfield	Carter & Burgess, Inc.
Member	Carolyn Motz	Hagerstown Regional Airport
Liaison	Lori Lehnerd	Federal Aviation Administration
Liaison	Richard Marchi	Airport Council International–North America
TRB Liaison	Christine Gerencher	Transportation Research Board
ACRP Staff	Christopher Jenks	Transportation Research Board

- The topic should be timely and critical with respect to safety, economic, or social impact.
- The topic is appropriate if current practice is nonuniform or inconsistent from agency to agency, or if the validity of some practices appears to be questionable.
- The quality and quantity of useful available information should indicate a need to organize and compress that which has already been learned and written on the topic.
- The topic should not be one where ongoing research or other activities in progress might be expected to render the synthesis obsolete shortly after completion.

Each year more topics are suggested for the committee's consideration than can be programmed for study in Project 11-03. Nevertheless, the continued success of this project depends on a constant supply of worthy synthesis topics. The interest of those who have recommended topics is sincerely appreciated, and they are urged to continue. Candidate topics are suggested by members of the panel and by a variety of other sources, including airport, airline, and state aviation personnel; FAA and TRB committees; aviation organizations; and other practitioners and researchers.

Conduct of the Studies

Following the project panel's selection of topics, studies are initiated in the order of priority assigned by the panel. A topic panel consisting of practitioners and researchers is formed for each topic. At its first meeting, this topic panel thoroughly discusses the topic, refines the scope, suggests sources of information, and identifies and selects potential topic consultants based on expressions of interest received in response to an industry-wide solicitation.

Following this meeting, a consultant is hired to gather information on the topic, synthesize it, and draft a report. Typically, the agreement covers a period of six to seven months. Information gathering and preparation of the first draft of the synthesis report takes about four months. This draft is reviewed by the topic panel with the consultant, often at the second panel meeting. A revised draft is then prepared by the consultant. Subsequent drafts and meetings are scheduled, if needed, although this rarely occurs.

After the staff is substantially satisfied with the report, a final draft is sent to members of the topic panel for their last chance to review the report and then to ACRP Project Panel 11-03 for final approval. The report is subsequently published as an *ACRP Synthesis of Airport Practice.*

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