PROJECT NUMBER:
02410

PROJECT TITLE:
A Revised System for Airport Licensing in the State of Alabama

PRINCIPAL INVESTIGATOR:
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PROJECT OBJECTIVE:
Develop an inspection/rating procedure for general use airfield pavements, and incorporate it into the revised system (now being developed by UTCA) for inspecting and licensing Alabama general use airports. The proposed system will provide web-based airport information for public access through an ALDOT home page.

PROJECT ABSTRACT:
This project is an extension of a project begun at the University of Alabama in January of 2002 (in effect, this project constitutes the second phase of that work). This effort will investigate existing airport pavement software and inspection technologies, test them, and incorporate them into an enhanced airport inspection/rating system. The system will be developed in concert with input from the ALDOT Aeronautics Bureau management and staff members.

PROJECT TASK DESCRIPTIONS:
Task 1: Review work on UTCA Project 02101 to identify overlapping portions of the two projects, and to efficiently merge the projects to increase the joint output.
Task 2: Identify, obtain and evaluate pavement inspection software and technologies.
Task 3: With ALDOT’s assistance, field test the pavement evaluation software and technologies.
Task 4: Analyze performance, and prepare procedures and documentation for implementation by ALDOT.
Task 5: Prepare deliverables.
Task 6: The refined inspection and licensing outcomes, if approved by the Bureau, will be incorporated into the ALDOT web site.

MILESTONES AND DATES:
Initiate Project: June 4, 2002
Task 1 completion: July 1, 2002
Task 2 completion: Sep 1, 2002
Task 3 completion: Dec 1, 2002
Task 4 completion: Feb 1, 2003
Task 5 completion: Apr 1, 2003
Task 6 completion: June 4, 2003

TOTAL BUDGET:
One-year project: Alabama DOT “State Planning & Research” (SPR) funding $65,696

STUDENT INVOLVEMENT:
A graduate student at the master’s level and an upper-division undergraduate student will be used in this project.

RELATIONSHIP TO OTHER RESEARCH PROJECTS:
This is a companion project for UTCA Project proposed as a direct result of work being done in the current UTCA project 02101 – “Web-based Airport Licensing,” and is an outgrowth of UTCA project 01111 – “Air Transportation Internship 2001.”

TECHNOLOGY TRANSFER ACTIVITIES:
This project will generate a final report, web-based inspection/ licensing software, a thesis, and a technical paper. The latter will be submitted to the Transportation Research Record for peer review and publication.

POTENTIAL BENEFITS OF THE PROJECT:
• A realistic and efficient way to inspect airfield pavements and to track their deterioration will be developed.
• The ratings of individual airfield pavements can be tracked over time, modeled, and scheduled for optimum maintenance and replacement actions.
• The inspection/licensing procedure will be completed more efficiently and the results distributed more quickly than at the present time.
• Airport operators can be cognizant of their strengths and deficiencies through the “weighted” inspection/licensing system.
• ALDOT and University specialists will be brought closer together to create better working relationships in a common cause.

TRB KEYWORDS:
General-use airports, airfield pavement, pavement rating, airport inspection, airport licensing, web-based