ACRP Problem Statement 17-10-04

Recommended Allocation: --

Best Practices for Airport Project Prioritization and Asset Management at the State Level

ACRP Staff Comments

--

TRB Aviation Committee Comments

AIRPORT TERMINALS AND GROUND ACCESS: Support. The proposed research needs to recognize that state aviation agency roles vary by state (e.g., block grant versus other states), and those agencies that are part of state DOTs may have to conform to departmental policies and practice. The research should also be expanded to understanding why state practices were adopted or evaluating their effectiveness—the survey itself is not enough. The research also needs to develop guidelines for prioritizing capital improvements within a broader multi-modal context.

Review Panel Recommendation and Comments

Not recommended. The states would benefit from this, not airports. It would not be feasible to research this topic for all the states.

AOC Disposition

There was no discussion. No funds were allocated.
I. PROBLEM TITLE

Best Practices for Airport Project Prioritization and Asset Management at the State Level

II. RESEARCH PROBLEM STATEMENT

With limited available resources, a vast amount of aviation infrastructure, and numerous airport projects that are needed to maintain and improve that infrastructure, state aviation agencies must prioritize projects and manage assets efficiently. Establishing and implementing a system in which to rank projects can serve as a framework that agencies can use to prioritize projects. Since each state aviation agency is unique and the goals of each vary, the criteria that are or could be used for prioritization also vary. This research would provide a collection of best practices that are being used by state aviation agencies to manage assets and projects. The guidance provided in the report would help states understand the variety of criteria and ranking systems that could be used and select new or modify existing measures to improve current project prioritization efforts. It is also important for this research to acknowledge that project prioritization at the state level does not always align with the FAA’s prioritization of projects. As such, recommendations and techniques for addressing different project priorities could be provided in this report.

Prioritizing projects is one aspect of asset management for which states are responsible. Asset management at the state level can be challenging due to the volume of infrastructure that must be managed in order to provide a safe and efficient state aviation system. Often, states utilize system plans as a guide for managing aviation assets, as they provide an inventory of the current conditions of infrastructure and suggest and prioritize necessary maintenance and development projects. As such, it is possible that this research could be combined with the problem statement titled “Guidebook for Developing State Aviation System Plans,” or there may be an opportunity for the two projects to share related information.

III. OBJECTIVE

The objective of this research is to provide a resource for state aviation agencies to identify and implement project prioritization methods that would be effective and appropriate for their agency.

IV. RESEARCH PROPOSED

Outreach to the 50 state aviation agencies will be required to gather specific information on the project prioritization and asset management techniques that are used. Case studies can supplement this baseline data to share more detailed information on successful practices. From the data gathered, best practices should be identified and shared in the resulting guidebook. The report should include tools and techniques that states may use (worksheets, checklists, etc.) to enhance existing prioritization and asset management efforts. Emphasis should be placed on the potential differences in project prioritization at the state level versus the federal level and suggestions on how to handle these differences should be provided.

V. ESTIMATE OF THE PROBLEM FUNDING AND RESEARCH PERIOD

Recommended Funding: The recommended funding for this project is $300,000.

Research Period: It is anticipated this project will be completed in 18 months - 15 months for development and 3 months for review and revision.

VI. URGENCY AND PAYOFF POTENTIAL

Limited funding and available resources makes the task of prioritizing projects critical for state aviation agencies. With a set amount of funding, states must identify projects with the greatest need, understanding that not all of the projects proposed will receive funding. This research will provide states with a review of best practices for efficiently and effectively prioritizing projects.

VII. RELATED RESEARCH
A review of existing ACRP and external resources was conducted and several ACRP resources were identified that may be related to the proposed research. These resources are listed below.

**Existing Research- ACRP**
- ACRP Report 69 - Asset and Infrastructure Management for Airports
- ACRP Report 120 – Airport Capital Improvements: Developing a Cost-Estimating Model and Database
- ACRP Report 33 – Guidebook for Developing and Managing Airport Contracts
- ACRP Project 03-38: Understanding FAA Grant Assurance Obligations (Pending, Panel met in March 2015 to select proposal)
- TRB Webinar: Putting Transportation Asset Management into Practice in a State Department of Transportation 9/24/15

**Existing Research- External**
- N/A

**VIII. PERSON(S) DEVELOPING THE PROBLEM**

NASAO members from the following states have shown support for this Problem Statement:

- Michigan
- South Carolina
- New Hampshire
- Maine
- North Carolina
- Washington
- Oklahoma
- Colorado
- California

**IX. PROCESS USED TO DEVELOP PROBLEM STATEMENT**

This problem statement was developed through formal outreach to the National Association of State Aviation Officials (NASAO) membership, at the request of ACRP.

**X. DATE AND SUBMITTED BY**

NASAO

Submit to:

Michael R. Salamone  
Manager, ACRP  
Transportation Research Board  
500 Fifth Street NW  
Washington, D.C. 20001  
202/334-1268  
FAX 202/334-2006  
acrp@nas.edu