

Problem Statement No.: 24-972

Airport Maintenance Handbook

Recommended Allocation: \$400,000

Tags: Safety, Operations, Maintenance

Staff Comments: ACRP has conducted related research: *Research Report 138: Preventative Maintenance at General Aviation Airports. Vol. 1: Primer* is geared toward management and boards to help them understand the importance of preventative maintenance and budgeting for it; *Vol. 2: Guidebook* is aimed at staff conducting preventative maintenance activities.

Average Airport Employee Review Rating (out of 5): 3.23

ACRP Oversight (AOC) Disposition: This problem statement received an average rating of 2.54 on a scale of 1 to 5 among voting members. ACRP published a preventative maintenance handbook for GA airports and there is already a lot of information. Not clear on what the remaining research gaps are. Not funded.

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Topic Areas

Safety
Operations
Maintenance

Background

Applicable guidance addressing the maintenance needs of airports appears to be lacking.

Objective

Develop a handbook addressing the who, what, when, where, why, and how of airport maintenance

Research Approach

N/A

Cost Estimate and Backup

\$400,000. This appears to be original research, not an update of an existing manual/handbook nor a synthesis of readily available experiences or practices. It will require time and effort to gather information, analyze it to determine best practices, and package the findings into a useful handbook.

Related Research

To the best of my knowledge, there is resource guiding fundamental questions like maintenance facilities design, equipment needs and use, potential for cooperative agreements with public agencies or private contractors. There is information about asset management but not about approaches to maintenance practices, programming, staffing, equipping.

Author

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Airport Employee Comments

See prior work including ACRP 03-56 Report 138.
ACI-NA has a course Airfield Maintenance 101 and back in the late 80's, Transport Canada had a self-study course for Airfield Maintenance personnel starting in the role. However, there is a definite lack of material in the US for AMX personnel and managers new to the role, the problem statement has some merit to it, to bring peer to peer knowledge together.
Objective is lacking, and research approach is non-existent, I think if the topic was redefined around certain aspects such as common products and processes to use in pavement repair or airport construction relationship building with contractors. This topic would receive a higher rating from myself.
Exceedingly applicable to the vast majority of airports in the NPIAS. This is an area that is lacking and could potentially be of great use. The challenge of course is that airports seem to be singularly unique developments - suggested maintenance techniques may not be applicable to individual sites.
Will be a great resource for executives.
Could be a useful project if the scope is well thought out and a gap analysis is completed. The handbook should focus on the gaps in the current system.
Many airport sponsors struggle with what exactly needs to be done and when. Training staff is key to making sure best practices are followed.
This would be a great topic and covers the four areas above. If this is selected there should be consideration on how transferable the information will be to small (non-hub) airports.
I agree with the Submitter that there are not many ACRP reports focused on (non-asset management) maintenance topics. Maybe the research can also include recommendations on how to more effectively share the resulting handbook/info with airport maintenance professionals.
This is a good topic, but the problem statement needs more detail and defined scope. Maintenance at an airport (large or small) covers a wide scope from pavement maintenance and rehab to plumbing fixtures and this project needs more focus and definition.
Handbook could be beneficial - thinking maybe for smaller airports as they work to grow. Could use some refinement to determine what the "ask" really is.
This is applicable, achievable and implementable, and the problem statement is generally well written, although the author likely meant to say "there is NO resource" (the "NO" was omitted) guiding fundamental questions regarding maintenance management.

TRB Committee Comments

AV050	AIRPORT TERMINALS AND GROUND ACCESS (AV050): This not recommended because the research topic as suggested is too general in nature and has also been covered by ACRP web-only document 23 on maintenance management systems.
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