What Makes a Good ACRP Problem Statement?

The Airport Cooperative Research Program or ACRP is one of the several industry-based programs managed by the Transportation Research Board of the National Academies of Sciences, Engineering, and Medicine. ACRP funds research to find solutions to challenges faced by the airport industry.

The airport industry develops research ideas and submits them to ACRP in the form of “problem statements.” Problem statements are not grants nor proposals. They are brief justifications for projects that:

- Identity a problem;
- Describe research; and
- Justify how the research will help the airport industry address the problem.

The first step in writing a good problem statement is knowing how they are selected for funding. ACRP’s Oversight Committee, or AOC, reviews and selects problem statements to be funded as projects. It also considers input from airport industry practitioners. Both the AOC and practitioners use four criteria to determine if the proposed research is:

- Applicable;
- Achievable;
- Implementable; and
- Understandable.

Now let’s take a closer look at each of these criteria as this will help you see whether your idea is a good candidate for ACRP.
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First, consider how applicable the problem is. Does the proposed research apply to many airports, or just a few? The more that will benefit from the research, the better.

Next, consider how achievable your proposed research is. Can it be realistically and successfully undertaken? ACRP research projects can’t take years or millions of dollars to accomplish; it must be realistic to achieve.

If you’ve addressed the first two criteria, next ask: Can the results from the research be implemented? For example, can airports immediately apply them without having to wait for new technology, changes to regulations, or something else?

Is the problem statement understandable? If the problem statement is poorly written, it will have a hard time receiving funding.
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Once you’ve given thought to a problem, you may be wondering how to introduce your idea and develop it by getting input and feedback from the airport community.

To do this use IdeaHub, ACRP’s online platform. IdeaHub allows you to transform your idea into a problem statement by entering at least the first 6 of these 9 elements. Each of which gives you a chance to make your case for funding.

From idea to problem statement. These include:

1. Idea Collection
2. Title
3. Brief Description
4. Objectives
5. Background
6. Approach
7. Cost Estimate and Backup
8. Related Research
9. Tags

Each of these 9 elements is important. However, you only need to complete the ones shown with an asterisk to get your idea going. Let’s take a closer look at each of the items.

**Idea Collection.** To start, if your idea is to develop guidance, tools, or best practices then choose “Research.” On the other hand, if your idea is limited to a review of current practices, then drop it into the “Synthesis” collection.
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Next, choose a title to help reviewers and collaborators quickly identify the proposed research idea. Try to keep your title to ten words or fewer.

Provide a brief description—just a sentence or two to introduce the general idea.

Since the focus of ACRP is to help airports, the objective should be a succinct statement of what the final product of the research would be. It should not be vague or include intermediate deliverables or research tasks. These should be described in the next section.

The background section is your opportunity to convince the reviewer that your research idea merits funding. In three short paragraphs or less, describe the problem or challenge requiring research and the expected benefits it will deliver to the airport industry. When writing this section, answer the question, “Why should anyone care about this problem?”
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Describe a general **approach** to conducting the proposed research, with a focus on key tasks. Don’t be too detailed. If your proposed research is selected, ACRP will want proposers to the RFP to suggest their own approach.

Next, provide a **cost estimate and justification**. Most ACRP projects cost between $300,000 and $600,000 and take about 1 to 1-and-a-half years to complete.

In this field, describe both completed and ongoing **research** on the topic and explain how your proposed research would complement and build on those other efforts rather than duplicate previous work.

Lastly, include **tag words** and terms that are associated with your proposed research project. Same examples include “Operations,” “Environment” and “Noise.” Including tags will help link your problem statement to multiple disciplines and subject areas it addresses.
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Still need help? No problem!

Email us at acrp@nas.edu
or call (202) 334-1649

So, what are you waiting for?