

***Airport Emissions Tool***

Click here to see problem statement in IdeaHub: <http://ideascale.com/t/UKsrZBSEh> (Note: you must be a registered user in myACRP/IdeaHub.)

**TAGS:** Air Quality, Airside, Construction, Environment, Landside, Sustainability

**STAFF COMMENTS**

The related research section of the problem statement lists ACRP Report 102; there are numerous additional ACRP studies related to emissions modeling that should also be considered.

**AVERAGE INDUSTRY RATING SUMMARY**

	<b>Committees<sup>1</sup></b>	<b>Airport Community<sup>2</sup></b>
Achievable	4.00	3.86
Applicable	4.00	4.00
Implementable	4.25	3.64
Understandable	3.75	3.86
<b>OVERALL</b>	<b>4.00</b>	<b>3.84</b>

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Notes: 1. Includes TRB aviation committees and committees from ACI-NA and AAAE.

2. Includes airport employees serving on active ACRP project panels.

[USE THIS LINK TO SEE DETAILED INDUSTRY RATINGS.](#) Click on the arrow in the Problem Statements dropdown menu in the upper right and select the problem statement number.

[USE THIS LINK TO SEE DETAILED INDUSTRY COMMENTS.](#) Click on the arrow in the Problem Statements dropdown menu in the upper right and select the problem statement number.

**ACRP OVERSIGHT COMMITTEE (AOC) DISPOSITION**

The average AOC rating among its voting members was 3.2 on a scale of 1 to 5. The FAA is planning to develop an emissions screening tool. The problem statement was not selected for ACRP funding and will be returned to the idea collection phase of ACRP's IdeaHub.

***Airport Emissions Tool***

**TAGS:** Air Quality, Airside, Construction, Environment, Landside, Sustainability

**OBJECTIVE**

Develop a simplified airport emissions inventory tool for criteria pollutants.

**BACKGROUND**

U.S. Airports are required to use the Aviation Environmental Design Tool (AEDT) in order to provide information to FAA on air quality impacts associated with future airport projects. In addition to the policy-driven analyses requiring use of AEDT, there is a current need to develop a simplified tool to enable airports to conduct emissions inventories to assist with project planning and environmental screening. A simplified tool would help airports of all sizes perform basic air quality assessments with fewer resources (consulting or in-house staff).

**APPROACH TO RESEARCH**

- Survey airport practitioners on their challenges and needs in performing their emissions inventories. Identify ways an inventory tool can improve the process.
- Design and build a screening tool to model and track criteria pollutants at airports. Provide a simple and easy to use interface for conducting criteria pollutant inventories. The tool should be in the form of a spreadsheet or other self-contained package so as not to require external software or tools. The tool should be compatible with existing environmental tools such as AEDT, MOVES, and AERMOD as a first step in preparing more detailed studies as required. Features of the tool may include building inventories from flight schedules (a simple list of flights that includes aircraft type) and from standard ground vehicles and fixed emissions sources.
- Provide a guidebook on best practices for using the tool and performing airport inventories for criteria pollutants.

**COST AND JUSTIFICATION**

\$450,000 / 24 months

This is both an analysis and software development effort. A budget at the higher end of most ACRP projects ought to be necessary to cover these efforts.

**RELATED RESEARCH**

ACRP Report 102: Guidance for Estimating Airport Construction Emissions  
Airport Carbon and Emissions Reporting Tool (ACERT)  
Aviation Environmental Screening Tool (AEST)- FAA-sponsored tool  
Technology Portfolio and Decision Support (TPADS)- NASA Environmentally Responsible Aviation sponsored tool  
ASCENT no. 011- Rapid Fleet-wide Environmental Assessment Capability

**IDEA CREATOR**

*Person who first shared the idea with the IdeaHub community.*

Kris Russell

Resource Manager (Supervisor / mid-level Manager / Assistant Manager)

DFW Airport

**OWNER/SUBMITTER**

*Person who volunteered to be responsible for developing the idea into a problem statement.*

Charles Murphy

Technical / Professional (non-supervisory) Metron

Aviation