

Problem Statement No.: 914

Airport Wayfinding: Research Based Principles and Aviation Industry Best Practices

Recommended Allocation: \$400,000

Tags: Airport-Planning, Customer-Experience, Design, Information-Technology, Landside, Operations, Safety, Terminal

Related Emerging Issues: Total Customer Experience

Research Roadmaps/Themes: Design & Construction / Customer Service

Staff Comments: The author proposes updating and packaging ACRP's wayfinding-related research and notes other ACRP projects have undertaken similar efforts on other topics. Related ACRP research includes: ACRP Report 52: Wayfinding and Signing Guidelines for Airport Terminals and Landside (2011); ACRP Report 161: Guidelines for Improving Airport Services for International Customers (2016); and ACRP Report 177: Enhancing Wayfinding for Persons with Disabilities and Aging Travelers (2017).

Average Airport Employee Review Rating (out of 5): 3.93

AOC Oversight Committee (AOC) Disposition: This problem statement received an average rating of 3.64 on a scale of 1 to 5 among voting AOC members. There is a lot of information on this topic. One possibility is to create a repository or summary of the information. Not funded.

Airport Wayfinding: Research Based Principles and Aviation Industry Best Practices

Summary

Wayfinding continues to be one of the most important factors that can help provide a positive customer experience. 😊 There has been a lot of changes and advances in airport wayfinding since the ACRP Report 52: Wayfinding and Signing Guidelines for Airport Terminals and Landside was published in 2011 that warrant an update where airports can benefit from the current wayfinding best practices, research and innovation.

Background

The Airport Cooperative Research Program has a history of placing an emphasis on the important role of wayfinding at airport which began over eleven years ago when the ACRP recognized the need to fund the research that went into the ACRP Report 52: Wayfinding and Signing Guidelines for Airport Terminals and Landside (2011). Additional wayfinding research and best practices were a key component to ACRP Report 161: Guidelines for Improving Airport Services for International Customers (2016) where 1,000 passengers surveyed at the top eight U.S. gateway airports ranked finding their way as a top priority. ACRP Report 177: Enhancing Wayfinding for Persons with Disabilities and Aging Travelers (2017) further advanced the goal of enabling aging travelers and persons with disabilities to travel independently in airports.

The combination of the proposed update and consolidation is in line with other similar efforts such as ACRP 02-97 to Update to the Guidelines, Tools, and Resources Related to ACRP Reports 11, 147, and 160 and ACRP 07-19 Update to ACRP Report 25: Airport Passenger Terminal Planning and Design.

Airports support the benefits of applying ACRP wayfinding research; e.g.; Recent RFQ issued in December 2021 from Tulsa Airport Improvement Trusts stated the wayfinding planning and design shall be in accordance with ACRP Report 52 and ACRP 177: Enhancing Wayfinding for Persons with Disabilities and Aging Travelers.

This idea will provide airports with a single consolidated resource for wayfinding research and best practices.

Objective

While each of these reports (52/161/177) contain valuable information, the collective value may not truly be realized because people must cull through all three separate publications in order to glean the full benefits. The other key point is Report 52 is over a decade old and while the fundamental principles are still valid there has been many advancements in airport wayfinding since the Report 52 was originally published.

Therefore, the objective is to combine the best and most relevant content from all three reports into a single user friendly go to source and include new research from the last 11 years that will benefit the aviation industry moving forward. The new single source guidebook should include research based industry best practices for visual, verbal and virtual wayfinding information with emphasis on the significant shift over the past decade in digital transformation, innovation and emerging technologies that feed into the virtual wayfinding information.

A consolidated guidebook with the latest advances will produce the following benefits and results:

Immediate Use: Provide results that every airport can immediately put into practice.

Enhance ACRP's Research Mission: by establishing a single source research-based set of wayfinding guidelines.

Improve Customer Service: which is becoming increasingly important to airport directors.

Reduce Passenger Confusion: by following the best practices and principles to ensure a consistent wayfinding strategy

Improve Comprehension & Overall Travel Experience: for travelers of all abilities.

Clarify & Enhance Overall Connectivity & Communications: for safety/warning, regulatory, directional, informational, and public service messaging while ensuring more efficient signage planning.

Research Approach

The scope of tasks to complete this research include the following:

Phase I

Task 1: Data Collection, Analysis of Recent Research, Current Practice, Safety and Outreach.

Gather peer reviewed wayfinding research published since 2011. Collect most recent and relevant wayfinding assessments and studies from airports around the country (world?) to review and compare and help define current best practices. Research should also include safety related information; e.g.; guidance on promoting safer vertical circulation using escalators and elevators, guidance on best signing and information practices during a pandemic, etc. Outreach to query airports to identify their top wayfinding issues for the roadway, parking, curbside, and terminal areas.

Task 2: Technical Report: Review of ACRP Reports 52/161/177

Comprehensive analysis, critique, review and comparison of these three reports to disseminate common elements and unique elements for consolidation; identify outdated elements that can benefit from an update; recognize content and or gaps in content that can benefit from the results of Task 1 research.

Task 3: Architectural and Operational Impacts on Wayfinding

Wayfinding is a direct response to design the space and place of terminal design, roadway configuration, access to parking products and access to ground transportation that are also driven by the functionality of airport operations.

Task 4: Operational Flexibility

Develop guidance on how an airport can plan, develop, deploy and maintain and wayfinding system that offers a high level of operational flexibility. This is important because wayfinding is not limited to static information and as air travel continues to evolve the need to provide passengers with access to real time information and the digital tools and technology has also evolved. Every airport is also constantly changing physically and operationally and a wayfinding system that provides a high level of operational flexibility is better positioned to help an airport keep pace with changes and delivering critical passenger information in real time.

Task 5: Preliminary Outline

Assimilate the results from Tasks 1, 2, 3 and 4 into a preliminary outline that summarizes how the consolidation of the existing content will be blended with new wayfinding research and addresses airport's top wayfinding issues.

Task 6: Interim Report

Phase II

Task 7: Draft final deliverables

Guidebook that meets the requirements as described in the objective and detailed in the Phase I tasks.
Power point presentation that summarizes the key findings of the guidebook that is suitable for dissemination at industry conferences

Cost Estimate and Backup

Tasks 1 - 3: \$100,000

Tasks 3-6: \$150,000

Task 7: \$150,000

Total Cost Estimate: \$400,000

Cost Estimate is based on level of effort required to complete similar research along with a work breakdown based on the individual tasks associated with the proposed research plan.

Related Research

381 - the number of new published research documents on wayfinding since the original ACRP Report 52 was published in 2011. By comparison there were less than 100 published research documents available for review as part of ACRP Report 52.

Related ideas for research include information technology using airport indoor positioning, the value of artwork and wayfinding landmarks, understanding the value of how wayfinding supports the passenger level of service, applying the principles of universal design that benefit all users of an airport, how smart airports can work to enhancing the wayfinding experience by providing passengers with real time information in ways that also support operational flexibility, and how the evolution in both technology and airport operations have impacted terminology and symbology needed to successfully communicate wayfinding information.

Author

James Harding
Director Experiential Design and Wayfinding
Gresham Smith and Partners

Problem Statement No.: 914

Airport Wayfinding: Research Based Principles and Aviation Industry Best Practices

Airport Employee Comments

Another topic that requires attention, it is a very important subject and the more tools we provide the better.
constant changes in the airport environment to support business needs and changes in the airlines/concessions business models can create a confusing environment for the traveling population, static maps and directory can't be kept up to date, the new generation is used to a dynamic and mobile way of receiving information, interactive wayfinding is the new trend, guidance in this area is needed.
I would suggest this research project update an existing guidebook.
Very well written project problem statement. This is another project I have experience working on. Way finding at an airport show be tailored to all passengers to find their way. This is an important gap currently most of the airports experiencing in the US. Data should be easily available to complete the study.
Strongly meets all criterion.
Airport Wayfinding needs to consider consistency in signage throughout the nations' airports. Travelers already have difficulty in each terminal reading signage. The same style signage, landmark signs, colors of print would greatly expedite travelers through terminals. It will take time to consolidate all signage styles and then more time to implement.
Good ideas on review of current wayfinding publications and synthesizing a comprehensive report. It comes up a little short on the data collection side of how information can be obtained from airports (nationally or globally).
This relates well to No. 854. Commonality or standardization is still needed for wayfinding, and one concise resource would be helpful, including other digital strategies.
Consolidation of the various reports to date into an updated single source updated document would be very usable to airports.
I would like to see digital and bi-lingual included in this research.
This problem statement is well written and proves to be vital to customer service at airports. It is a research study that can be achievable, while serving to be highly applicable to general wayfinding gaps at airports. Implementation can be scaled to the needs of specific airport sizes and builds.

TRB Committee Comments

AV050	AIRPORT TERMINALS AND GROUND ACCESS COMMITTEE: This problem statement deserves to be funded primarily because updating wayfinding standards is always necessary so that airports can keep up with recommended practices and standards. However, the funded work should move away from being a single research document that is a snapshot in time and move to a database of standards and practices that can be updated as the technology changes. A possible shortcoming of this problem statement is that it seeks to update and rewrite existing research, so it is expected that this project will break new ground beyond ACRP Report 25.
-------	--

IdeaHub Votes and Comments

Idea Number: 914

Airport Wayfinding: Research Based Principles and Aviation Industry Best Practices

The votes and comments below were provided by the IdeaHub community prior to the idea submission as a problem statement.

Idea Link: <https://app.ideascale.com/t/UKsrZBsXH>

Tags: Airport-Planning, Customer-Experience, Design, Information-Technology, Landside, Operations, Safety, Terminal

Votes:

Votes	
Up	2
Down	0
Total	2

Comments: