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Breaking down barriers – Aiding airport travelers with disabilities

Tuesday, April 21, 2020
2:00-3:30 PM ET

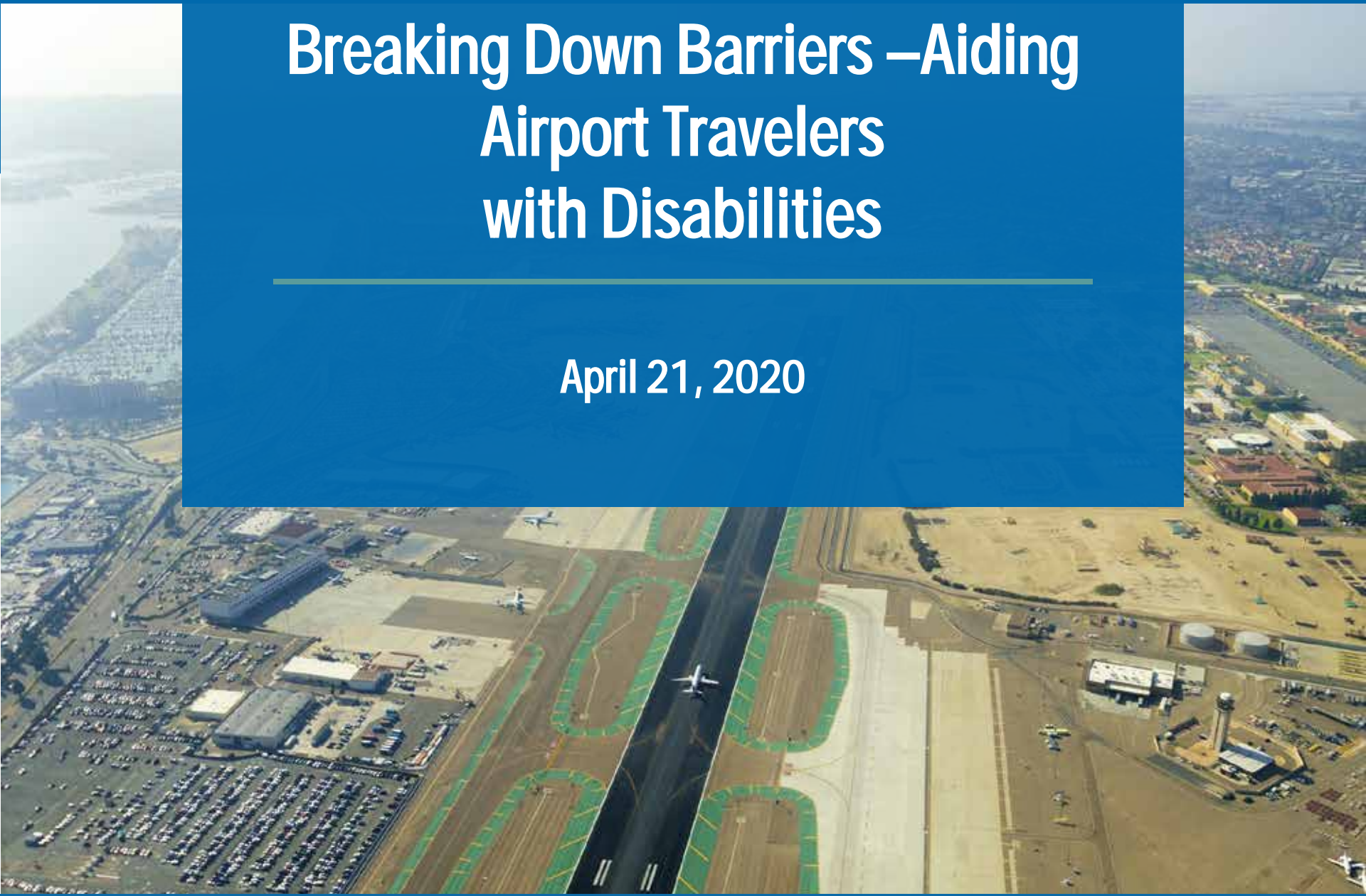**Tweet at @NASEMTRB**
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Learning Objectives

At the end of this webinar, you will be able to:

- Discuss how to effectively communicate with persons with disabilities and other challenges during emergencies

- List the technologies available for improved communication

- Identify how airports, airlines, and service companies are applying the practices identified in the guidebook to address unmet needs of travelers
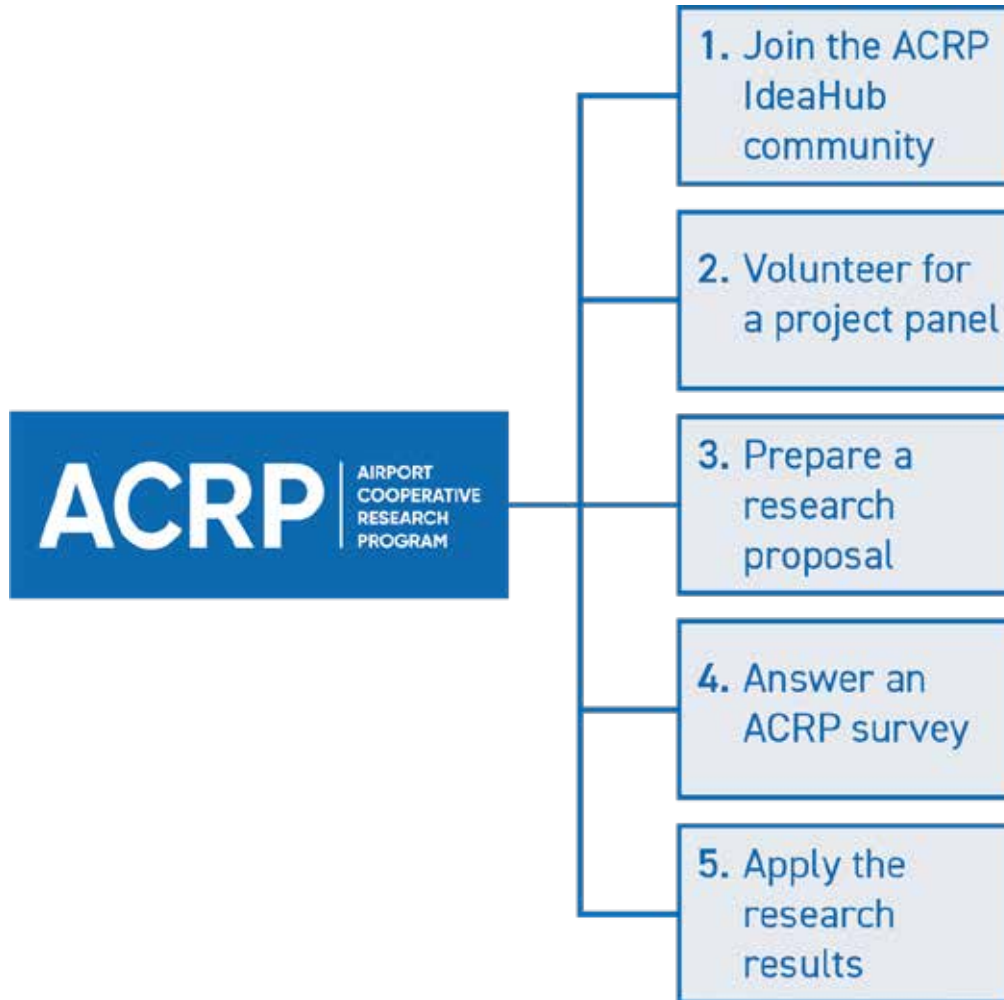
Breaking Down Barriers –Aiding Airport Travelers with Disabilities

April 21, 2020

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Today's Speakers

Don Griffith and Krista Houk, IEM

Presenting

ACRP Report 201: *Airport Emergency Communications for People with Disabilities and Others with Access and Functional Needs*

Laurel Van Horn, Open Doors Organization, and

Phil Burke, Minneapolis St. Paul International Airport

Presenting

ACRP Report 210: *Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities*

Introduction

- Retired U.S. Air Force Navigator (5,000+ Hours)
- Principal Investigator for ACRP 04-21
- Manager of Airport Planning and Operations Support at IEM

Don Griffith
IEM Air™

- Former Emergency Services Manager for the City and County of San Francisco, California
- Project Manager for ACRP 04-21
- Manager of State and Local Programs at IEM

Krista Houk
IEM

ACRP Research Report 201: Airport Emergency Communications for People with Disabilities and Others with Access and Functional Needs provides **guidance** and **tools** for airports to aid in effective communication with passengers and persons with disabilities, including those with cultural and language differences during emergencies and disasters.

- **Actionable process to build a comprehensive emergency communications strategy**

- **Checklists, templates, tools and resources to facilitate the process**

ACRP Report 201
Airport Emergency Communications

- Compliance and Accessibility

- ADA Compliance in Emergency Communication

- Respectful Communication

- Whole Community Planning

- Community Partnerships

- DAFN Advisory Groups

- Universal Design

- Communication Methods and Limitations for Emergency Situations

Compliance and Accessibility

- Current planning is compliance-driven and mobility-focused; little focus on *communicating* with people with DAFN in airport emergencies.

- Regulations vary from being very prescriptive to very broad.

- Non-emergency, non-communications–specific needs of people with DAFN is significantly challenging for airport personnel.

- Still many gaps in planning; administrators are seeing the benefit in working toward greater accessibility

- Successfully accommodating passengers of all types will allow more patrons to use the airport and add to airport revenue.

ADA Compliance in Emergency Communications

- Revised regulations for implementing ADA published by Department of Justice in 2010.

- As a Title III entity, an airport must meet the requirements to adequately support the DAFN communication needs.

- Airport must provide "auxiliary aids and services" when needed to communicate effectively with people with DAFN.

- It is important that the airport have a variety of aid and services available during non-emergency conditions that can also effectively reach people with DAFN in a timely manner during an emergency.

Respectful Communication

- Creating an environment that fosters respect

- True for day-to-day customer service or emergency messaging.

- Practice of using **"people-first" language**

- Fosters a more inclusive environment.

Examples of People-first Language
(Adapted from the Texas Council for Developmental Disabilities)

SAY THIS	NOT THIS
People *with* disabilities	The handicapped, the disabled
People *without* disabilities	Normal, healthy, whole or typical people
Person who has a congenital disability	Person with a birth defect
Person who has (or been diagnosed with)...	Person afflicted with, suffers from, a victim of....
Person who has Down Syndrome	Downs person, mongoloid, mongol
Person who has (or been diagnosed with) Autism	The autistic
Person with quadriplegia, person with paraplegia, person diagnosed with a physical disability	A quadriplegic, a paraplegic
Person with a physical disability	A cripple
Person of short stature, little person	A dwarf, a midget
Person who is unable to speak, person who uses a communication device	Dumb, mute

DAFN first…the wrong way!

People First…the right way!

Whole Community Planning

- *Inclusive* approach to emergency management and preparedness.

- Engage and empower all parts of the community

- Build on what works well in communities

- Critical to airports' emergency planning efforts

- "Nothing about us without us."

PEOPLE FIRST

Put the person before the diagnosis. Disability is not the **problem**. A person who wears glasses doesn't say, I have a problem seeing, they say, I wear/need glasses. Similarly, a person who uses a wheelchair doesn't say, I have a problem walking, they say, I use/need a wheelchair.

DAFN Advisory Group

- An effective way to ensure that airport emergency planning encompasses the whole community approach is to establish community partnerships.

- Airport emergency planners should establish a DAFN Advisory Group

- The group should include a committee of representatives from community advocacy and nonprofit organizations representing people with DAFN, airport emergency management staff, managers and administrators.

- An advisory group plays a vital role in developing an effective *emergency communications strategy, supporting evacuation training and exercise participants.*

Universal Design

- "Design for All" principles

- Often easier and more cost-effective to address, incorporate, and integrate accessibility features during the design phase rather than adding such features for specific groups after construction has been completed.

- Design environments and products that, to the greatest extent possible, can be used by most people without the need for adaptation or specialized design at extra cost.

Communication Methods and Limitations

- Functions-based approach allows airports to develop effective communication programs that support all travelers and employees during or as a result of an emergency.

- Guidebook offers benefits and limitations for visual, audio, tactile, and human-to-human communication formats

- Accessible emergency communications with a multi-modal, redundant approach.

- Airports should be able to implement several strategies for each of the four formats during an emergency, including one or more that are not reliant on power or internet.

ACRP Report 201: Airport Emergency Communications

STEP 1
Identify DAFN
Emergency
Communication
Needs

- Inventory DAFN Services
- Conduct Self-Assessment
- Identify Gaps

STEP 2
Develop DAFN
Emergency
Communications
Strategy

- Apply Core Techniques
- Identify Enhancements to Fill Gaps
- Implement Strategy

STEP 3
Incorporate
into Emergency
Preparedness
Program

- Include in Emergency Plans
- Deliver Accessibility Training
- Integrate DAFN into Emergency Exercises

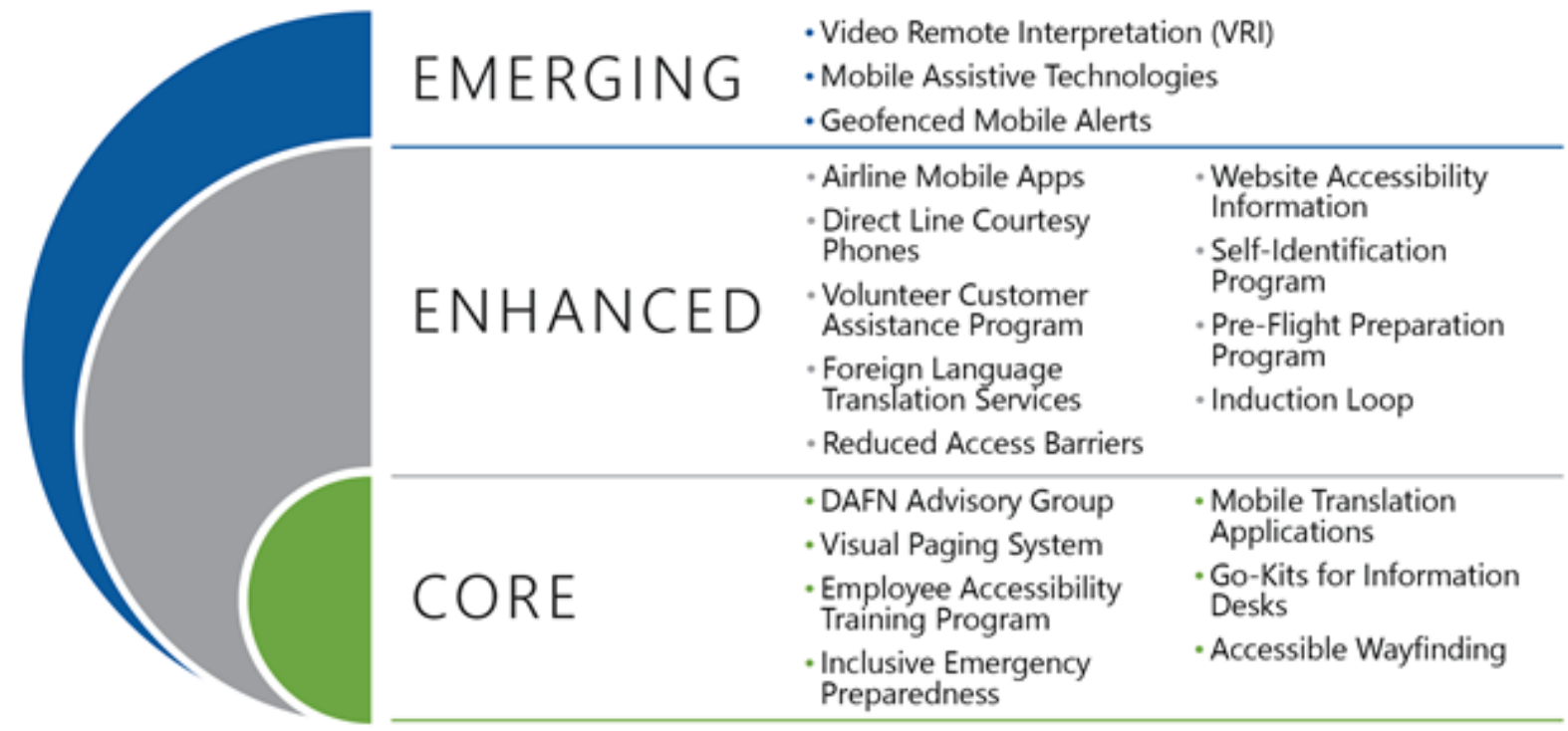## Effective Emergency Communications Strategy: Identify Gaps in Services

- Conduct a self-assessment to identify the airport's emergency communication needs.

- Ensure the communications strategy includes core techniques and, if not, implement them as a top priority as required by the FAA.

- Incorporate accessible communications strategies into the airport's emergency preparedness program.

- Establish a DAFN Advisory Group.

Checklist Example

PLANS, REPORTS, AND DOCUMENTS
INVENTORY CHECKLIST

[ ] Americans with Disabilities Act (ADA) compliance plan

[ ] Airport Emergency Plan (AEP), particularly those sections referring to persons with disabilities, others with access and functional needs, and those with limited English proficiency (DAFN)

[ ] Language Assistance Plan (LAP)

[ ] Comprehensive Crisis Communications Plan, Emergency Communications Plan, and/or AEP section on emergency communications

[ ] List of training topics pertinent to ADA, access and functional needs, or limited English proficiency

[ ] Training schedule that includes regularly scheduled accessibility trainings

[ ] Exercise scenarios that include DAFN

[ ] After-action reports or lessons learned from actual incidents, drills, or exercises involving DAFN

[ ] Demographic information on airport passengers and/or population surrounding airports (i.e., catchment area)

[ ] Design and use of non-verbal emergency communications (e.g., visual paging, Flight Information Display System, Baggage Information Display System, Gate Information Display System, pictographs, etc.)

[ ] Specifications on any electronic translation or interpretation aids used

[ ] Copies of contracts with vendor(s) and/or contractor(s) supplying specialized services for DAFN individuals

[ ] Self-audits

[ ] Federal Aviation Administration (FAA) audits

[ ] FAA Title VI Inspection

Techniques for Accessible Emergency Communications

EMERGING	• Video Remote Interpretation (VRI) • Mobile Assistive Technologies • Geofenced Mobile Alerts	
ENHANCED	• Airline Mobile Apps • Direct Line Courtesy Phones • Volunteer Customer Assistance Program • Foreign Language Translation Services • Reduced Access Barriers	• Website Accessibility Information • Self-Identification Program • Pre-Flight Preparation Program • Induction Loop
CORE	• DAFN Advisory Group • Visual Paging System • Employee Accessibility Training Program • Inclusive Emergency Preparedness	• Mobile Translation Applications • Go-Kits for Information Desks • Accessible Wayfinding

ACRP 04-21 Toolkit

Contents

- Appendix A: Inventory Checklists
- Appendix B: Accessibility Walkthrough Worksheet
- Appendix C: FAA Airport Accessibility Checklist
- Appendix D: Accessibility Strategy Quick Reference Guide
- Appendix E: Potential Solutions
- Appendix F: Emergency Communications CONOPS Template
- Appendix G: Training Program Resources
- Appendix H: Sample Staff Training Flyer and Brochure
- Appendix I: Exercise Toolkit
- Appendix J: Emergency Preparedness Scenario Vignettes
- Appendix K: Example Full-scale Exercise Notes
- Appendix L: Sample Mass Notification System Requirements
- Appendix M: Signage and Symbols

Best Practices

Best Practices

We used best practices as the basis for checklists, templates, and supplemental emergency planning resources appended to the guide.

- Incorporate DAFNs and LEPs into AWG, emergency planning & exercises
- Using pre-scripted emergency messages to expedite the dissemination process as quickly as possible strategies for accessible wayfinding include:
  - Low-level signage and maps;
  - Color-coded exit pathways and exit doors;
  - Glow-in-the-dark signs and lines on floors showing the evacuation routes; and
  - Evacuation and exit signage displayed in accessible formats (e.g., braille, tactile characters, large print, and multiple languages).

Conclusions and Recommendations

- Conduct a self-assessment for communication needs.

- Implement core techniques as a top priority as required by the FAA.

- Incorporate accessible communications strategies into your emergency preparedness program.

- Establish a DAFN Advisory Group.

- Support "Everyone is a First Responder."

- Implement a Variety of Different Strategies.

- Do not overlook the simple solutions.

- Take advantage of airport renovations as an opportunity to enhance accessible design.

- Develop the plans and procedures needed for successful implementation.

- Procedures need to be tested early and often.

Laurel Van Horn
Principal Investigator

VP Director of Programs
Open Doors Organization

Phil Burke
Case Study—MSP

Asst. Director, Customer Experience
Metropolitan Airports Commission

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ACRP Report 210 Oversight Panel

Jeannette Hilaire, Denver International Airport, Denver, CO (Chair)

Rick Belliotti, San Diego International Airport, San Diego, CA

Vicki Curtis, The Boeing Company, Seattle-Tacoma, WA

Stuart Garrett, Burns and McDonnell Engineering Co.

Craig Leiner, Leiner Aviation, Boston, MA

Margaret Robertson, Massachusetts Commission for the Blind, Boston, MA

Doug Mullen, Airlines for America Liaison

Aneil Patel, Airports Council International—North America Liaison

Melissa Sabatine, American Association of Airport Executives Liaison

Richard Bornhorst, FAA Liaison

Lillian Miller, FAA Liaison

Christine Gerencher, TRB Liaison

Theresia H. Schatz, ACRP Senior Program Officer

Other Research Team Members

Open Doors Organization

- Eric Lipp, Executive Director
- Katherine O'Reilly, Program Mgr.
- Pat Pound, IT Consultant

Alliaance—Jens Vange, Shane Worth

Indiana University—Shu Cole, Ph.D.

Arora Engineers—Jason Shevrin

Trillion Aviation—Steve Wareham

Site visit, Orlando International Airport

Research Problem & Objective

- Demand for assistive services exceeds the ability of airports and airlines to appropriately meet such requests

- Despite compliance with ADA accessibility standards, there remain significant gaps in service as well as unmet needs

- How are airports going beyond compliance to respond to the changing demographics and unique needs of the 21st century traveler?

- **Research Objective:** provide guidance on current and potential innovations, technologies, business practices, and partnerships with stakeholders to better address the needs of passengers who have a variety of physical, sensory and/or cognitive disabilities

Research Methods

- Comprehensive literature review

- Focus groups with stakeholders—airports, airlines, airline service companies—and individuals with disabilities

- Online surveys with stakeholders & the disability community

- Fact finding at aviation conferences & expos, and

- Site visits to over 25 innovative airports & non-airports in the United States, Canada, Europe and Japan

Barrier-free boarding bridge
Tokyo Haneda (HND)

Report Organization

Introduction	Innovations by Journey Segment	Implementing Inclusion
Chapter 1: Introduction to the Guidebook	Chapter 3: Pre-trip Planning	Chapter 10: Management Practices
Chapter 2: Understanding the Needs of Travelers with Disabilities and Older Adults	Chapter 4: Arriving to Airport by Ground Transport	Chapter 11: Architecture and Design
	Chapter 5: From Terminal Curbside through Security	Chapter 12: IT and Assistive Technologies
	Chapter 6: From Security Checkpoint to Gate and from Gate to Gate	
	Chapter 7: Boarding/ Disembarking and Stowage/ Retrieval of Assistive Devices	
	Chapter 8: From Arrival Gate to Terminal Exit and Inter-terminal Connections	
	Chapter 9: From Terminal Exit to Leaving the Airport	

Key Findings—Barriers to Equitable Service

- For travelers with disabilities, significant barriers remain at each step in the travel process, making it harder to function independently.

- At large airports, annual assistance requests top 1 million. Delays in service affect not just these travelers but airport operations overall.

- Because responsibility for assisting passengers with disabilities rests with the airlines under the Air Carrier Access Act (ACAA), airports have little data aside from customer complaints to guide their planning/development decisions.

- Inaccessibility of private ground transportation and hotel shuttles serving airports remains a problem across the United States.

- Solutions are often piece meal rather than holistic. As a result, decisions concerning changes to airport layout or purchase and installation of new technologies may overlook the needs of people with disabilities and older adults.

Key Recommendations

1. Improve collaboration & communication among stakeholders
2. Involve the disability community
3. Educate customers
4. Enhance independence & self-reliance
5. Embrace universal design & exceed regulatory minimums
6. Mind the gaps
7. Address unmet needs
8. Provide disability awareness training
9. Make inclusion central to your culture

Tri-Annual Crash Exercise, MSP

1. Improve Collaboration and Communication

- In Europe, airports are in charge of both facilities and assistive services.

- In the U.S., seamless service for customers with disabilities can only be achieved if airports cooperate closely with airlines and service companies.

- ADA Coordinators play a key role—internal and external ADA committees, staff training, audits, customer outreach, etc.
  - To be effective they must be in a position of authority, have a direct line to senior management, and an adequate budget and staffing

- Should airports play a larger role in ensuring the quality of service?
  - A few U.S. airports manage assistance—Grand Rapids, Quad Cities (Moline)
  - Some limit the number of service companies in terminal/airport—SFO
  - Some set service standards and require companies to provide data—LAX

2. Involve the Disability Community

Create a Disability Advisory Committee

- May meet quarterly (MSP, LHR) or monthly (ATL, LAX, MIA) as need dictates
- Include members with a wide variety of disabilities, ideally representing local chapters of national organizations
- Invite airlines, service companies and TSA to also attend
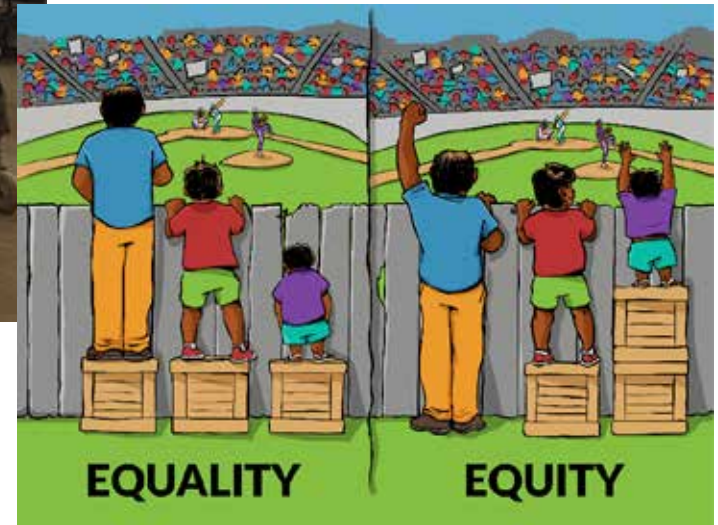
Committee Uses/Benefits

- Gives airport planners and architects a group to consult on questions of regulatory compliance and inclusive design
- Provides first-hand feedback on airport inefficiencies
- Members may participate in audits, mystery shopping, community outreach and emergency exercises

Disability Advisory Committee—Tips from MSP

Travelers with Disabilities Advisory Committee

TDAC meeting with airport executives, architects, airlines and TSA also in attendance

3. Educate Customers

- Travelers with disabilities fly less often and are less well informed

- The most innovative airports provide detailed information via websites, social media and apps

- Web best practices include:
  - Conforming to latest W3C standards
  - Putting an ISA on home page header with link to accessibility page (PHX, LAX, PANYNJ)
  - Organizing information by disability and topic (SEA, LAX, MSP)
  - Including links to useful resources—ADA, ACAA and TSA; accessible ground transportation; airline accessibility pages; service companies; etc.
  - Posting captioned terminal videos (CVG, BOS) and disability-related videos showing the travel process (YVR, LHR)
  - For travelers with cognitive disabilities, using plain language and including social stories, apps and details on any familiarization programs

Navigating MSP Airport

- Free monthly practice program
- MAC partnership with Frazer and Autism Society of Minnesota
- All disabilities welcomed
- Online registration
- Volunteers receive disability awareness training
- Free Infiniteach App for download provides social story with videos
- Separate practice program for service animal organizations

Infiniteach App

4. Enhance Independence and Self-Reliance

- Wheelchairs for loan
  — Orlando, Cincinnati Northern KY

- Electric mobility scooters
  — Birmingham UK

- Self-driving wheelchair
  — Whill Next

- Assistance Apps
  — AIRA, Neatebox

- Early Check-in & Bag Drop
  — Las Vegas, Denver, Tampa, Orlando

Above: Whill Next
Left: Traveler with vision loss using AIRA

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Electric Cart Transit System—MSP

Courtesy phones also enable customers
to request assistance past security

5. Embrace Universal Design

- Accessible design standards (ADA, IBC) primarily address mobility issues

- UD addresses the needs of humans of all ages, sizes, & abilities, improving safety & usability.

- Leading airports—San Francisco, Vancouver, Tokyo Haneda, Pittsburgh, MSP

- How user friendly are your facilities? Take the Wayfinding & Accessibility Audit from ACRP Report 177, included as an Appendix in Report 210.

Universally Accessible Kiosk, SFO

Universally Designed Restrooms—MSP

Above: All standard stalls
are ambulatory
Right: Wheelchair toilet room

Left: Changing
table beside sink

Below: Smart
Restroom sign

WELCOME TO
Terminal 1-Lindbergh   msp
LAST SERVICED
3:24 p.m.
← Next Nearest Restroom: 2 minutes
February 14, 2017   6:34 p.m.

WOMEN

6. Mind the Gaps

- Access to assistance on arrival by ground transport is the most common gap identified by this research—called "no man's land" in Canada

- Best practice solutions:
  - Kiosk, call button or phone to request help on arrival (DEN, GRR, IND, SFO)
  - Separate contracts to cover assistance at remote arrival points (SEA, PDX, SFO)
  - Parking shuttles serve customers at their cars (CVG, RSW)
  - Permission from security to park curbside and leave vehicle (PHX, BOS)
  - Text service provider to meet curbside or at parking (Quad Cities)
  - Designate specific drop off points for assistance (MSP)

Curbside Assistance—MSP

Website and digital sign (with alternating wheelchair symbol) direct travelers to two designated drop off points (for Delta and for all other airlines)

7. Address Unmet Needs

- ## Service Animal Relief Areas
    - Now mandated but more are needed in large, multi-concourse terminals
    - Many are not wheelchair accessible or functional for larger dogs

- ## Adult Changing Tables/Rooms
    - 7 U.S. airports now have at least one
    - Coming soon at MSP

- ## Sensory & Quiet Rooms
    - New PIT facility accommodates autism and dementia and has an Adult Changing Restroom

- ## Hearing or Induction Loops
    - Newest installations—Austin, Phoenix, Sarasota, Seattle, Rochester NY

Adjustable height adult changing table and sink, PIT

Accommodations for Hearing Loss—MSP

- Video Relay Interpreting
- Visual pages on FIDs, online and at info booth screen
- Live chat on MSP website
- Hearing loops in boardroom, international arrivals and Short Film Space—Info on YouTube: https://www.youtube.com/watch?v=BIrjkWpnGz4
- MAC partners with Commission of Dear, DeafBlind & Hard of Hearing Minnesotans

VRI on tablet (left) and Visual paging screen (below) at MSP info booths

8. Provide Disability Awareness Training

- Disability awareness training, while essential to good customer service, is not common practice for U.S. airports

- Some airports make basic awareness training part of the badging process, then follow up with more detailed & targeted training—SFO

- Some develop training in-house (SFO, Port Authority NYNJ, MSP, LAX), others work with disability organizations (PHL, DEN, MSP, YVR)

- A best practice is to include videos of people with a variety of disabilities

Familiarizing staff with accessible facilities—PHL

8. Provide Disability Awareness Training/2

- ACI Global Training (with ODO)
  - Online Disability Awareness module
  - 3-day "Accommodating Passengers with Disabilities" workshop for ADA coordinators & managers

- Other learning opportunities
  - FAA National Civil Rights Training for Airports
  - ODO Universal Access in Airports
  - Passenger Terminal Expo Conference
  - National ADA Symposium

ACI Workshop at MSP

9. Make Inclusion Central to Your Culture

- "The role of senior management is key to moving beyond a mindset which sees accessibility as benefiting only a limited few—and therefore not worth significant investment of scarce resources—to realizing that it improves the experience for all customers and is a fundamental part of economic and social sustainability."

- By highlighting the practices of airports that are leaders in accessibility and inclusion, the ACRP Report 210 research team hopes that others will emulate the many ways in which they are striving to improve the travel experience for all their customers.

- At the last FAA National Training, a number of U.S. airports declared their goal to be the "Most Accessible Airport," an encouraging sign.

User Groups

Icon	Group	Icon	Group
♿	Mobility Challenges	🐕	Service Animal Needs
	Arm/Hand Disabilities		Extremities of height and size
	Advanced Age	語	Language (ESL, non-English)
	Pregnant and Nursing Mothers	?	Inexperienced Travelers
👂	Deaf and Hard-of-Hearing		Gender Identity
👓	Blind and Visually Impaired		People with Strollers
*	Cognitive and Psychological Challenges		Children
			Cultural Expectations

Laurel Van Horn
laurel@opendoorsnfp.org

Today's Speakers

- Meaghan Smalley, meaghan.smalley@flyjax.com
- Don Griffith, Donald.Griffith@iem.com
- Krista Houk, Krista.Houk@iem.com
- Phil Burke, Phil.Burke@mspmac.org
- Laurel Van Horn, laurel@opendoorsnfp.org

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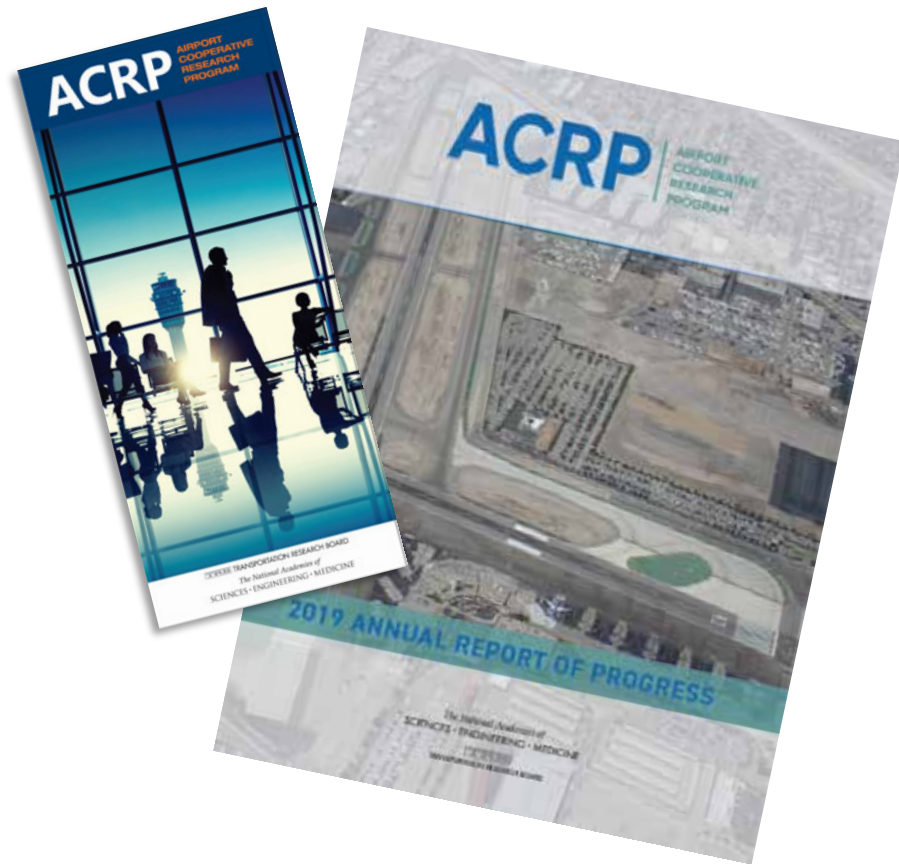 - Update your profile

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Other ACRP Research on Today's Topic

Report 52: *Wayfinding and Signing Guidelines for Airport Terminals and Landside*

Report 157: *Improving the Airport Customer Experience*

Research Report 170: *Guidebook for Preparing Public Notification Programs at Airports*

Research Report 177: *Enhancing Airport Wayfinding for Aging Travelers and Persons with Disabilities*

Synthesis 90: *Incorporating ADA and Functional Needs in Emergency Exercises*

Synthesis 101: *Communication Strategies for Airport Passenger Access and Mobility*

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