

Innovative Accessibility Solutions for Aging Travelers and those with Disabilities:



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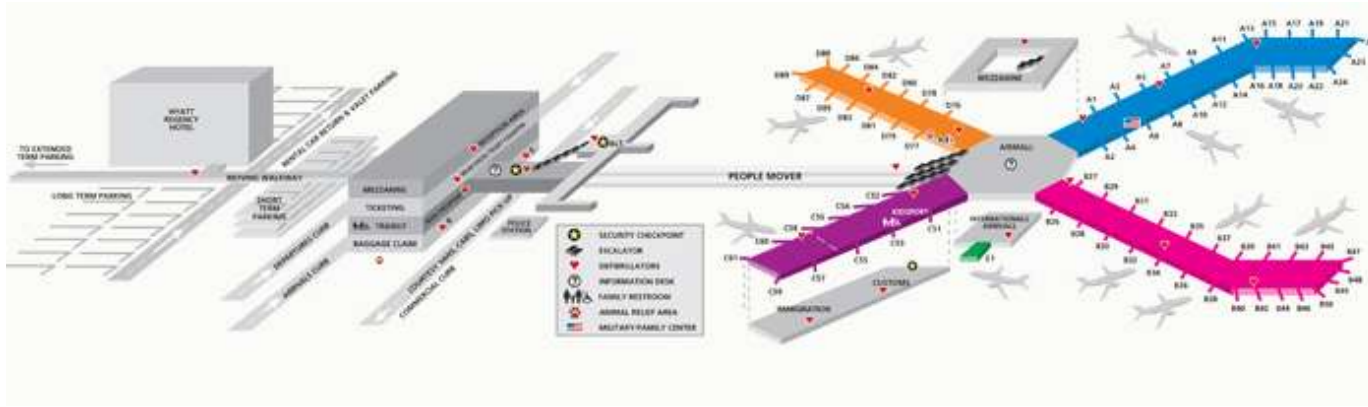
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LEADERSHIP



Section 1

Universal Design



The personal interaction was key

Identified Challenges

Offered solutions

Recognized decision making structure of airport

Took the long view



MSP work with the Deaf Community:

Not a smooth road at first!

1. First Meeting
2. Bureaucracy fails
3. They went over my head
4. Decided to make our airport the best in the world for accessibility of information for the deaf community
5. Delivered on promises...together
6. I realized that what we were building would benefit everyone!



Universal Design in scope of work discussions

Cleaning

Odors

Natural Light

Improve Women's experience

Durability

Advocacy groups are in on
design



MSP work with the Restrooms:

We took our time to do things right

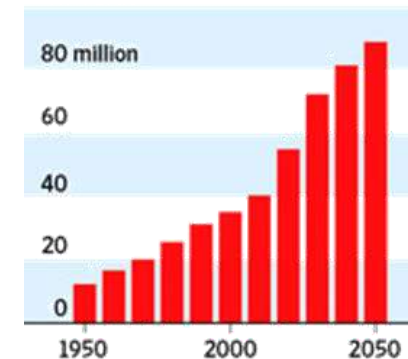
1. Universal Design a key goal
2. Other goals dovetailed nicely
3. Kept open mind about art
4. Sold our decision makers
5. 7 year plan
6. ACRP Project. New Standards recognized / copied at many airports

Section 2

Recent ACRP Research



Senior Surge
U.S. population aged 65
and older*



*2010 est.; 2011 and later, projections
Source: U.S. Census Bureau

Impacts of Aging Travelers on Airport

Every day 10,000 people turn 65 years old in the US

Demographic common in other countries (EU, Japan etc.)



Synthesis Paper 51:

Key Challenges for aging travelers:

1. Wayfinding
2. Fatigue
3. Technology and equipment
4. Use of Amenities



Enhancing Airport Wayfinding for the Elderly and those with Disabilities



ACRP 07-31:

The study builds on previous work...ACRP 70:

1. Airport Apps (good do's and don'ts)
2. Best of Airports
3. This conference helped out in 2014!
4. Final report due soon



Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities



ACRP 01-31:

The team is getting started:

1. Literature review complete
2. Research underway
3. You have been a part of the research! Thanks!
4. Stay tuned....



Section 3

What's new out there?



What is defined as a wheelchair problem is primarily a mobility challenge!

Wheelchairs used for wayfinding and perceived shortcuts

Labor costs

Airport experience for traveler

Mobility Solutions:

1. Boeing research: 90% of those who request wheelchairs in airports do not use them in their everyday lives
2. Wheelchair complaints top the charts among the airlines, airports and DOT
3. Almost 1/3 of wheelchair requests are walkups vs. planned and reserved on ticket
4. 2 pilot tests on Scooters in Airports (MXP, CVG)
5. A broad-based solution is needed....equipment damage, mitigation of damage, use of alternative equipment, how this fits in airports



Just one example...other uses as well:

Motion sensors...lower HVAC
when are unoccupied

Motion sensor turns on lights

Battery backup enhanced UPS
systems

Financing strategies may be
available

App designers are excited!

The internet of things:

1. A new LED bulb has a smart component to it that mirrors the airport beacon technology
2. These signals can address the poor GPS quality in airports by more effective triangulation
3. EWR Terminal B Security approach
4. LED lighting cuts lighting costs by 2/3rds
5. Other viable solutions....Li-Fi?



Shall we look at the air we breath?

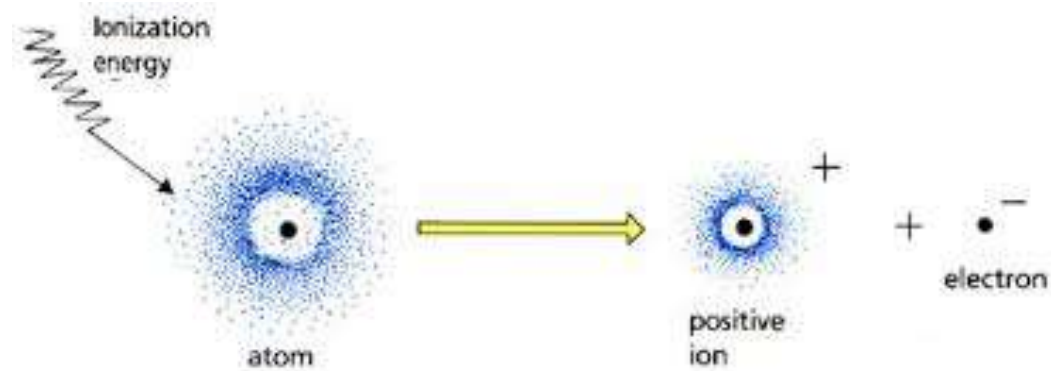
Travelers with disabilities, allergies and asthma and may be more susceptible to airborne contaminants

When used right, systems like this can lower the sizing of traditional air handling units

Keeping an open mind here...does this fit?

HVAC...does this count?:

1. HVAC complaints in airports....usually from tenants
2. Filters? Placement of fresh air intakes? Turns of air per hour?
3. Adding bipolar ionization to the air can help improve quality by reducing the number of contaminants
4. The ACRP research underway can connect dots



But who wins here? I think we all do.



Final Thoughts:

“**Perfection** consists not in doing extraordinary things, but in doing ordinary things **extraordinarily well.**”

- Arnauld, Angelique

