

Aging and Air Travel

TRB Session #584
Planning of Airport Terminals and Ground
Transportation Facilities
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U.S. Air Travel Market

- 2001 – 35 million seniors; 12 million trips
- 2025 – 63 million people; 30 to 60 million trips



Potential International Market

- 2001 – 420 million people
- 2025 – 830 million people



Benefits From Enhancements

- Seniors: Quality of Life
- Airports: +\$600 million annually
- Airlines + \$3 billion annually

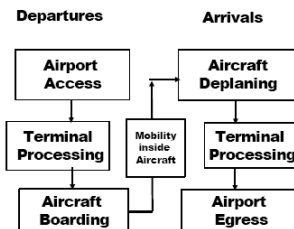


Aging Process Decreases

- Strength, endurance, agility
- Vision and hearing
- Processing of information
- Spatial orientation
- Searching and scanning



Trip Chain



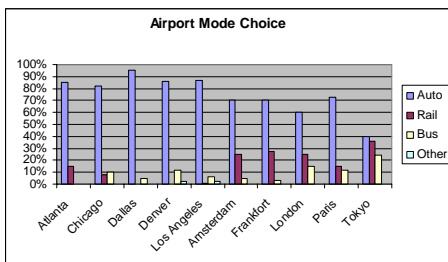
Airport Access



Ground Congestion



Airport Mode Choice



Source: Leigh Fisher Associates, 2002



Airport Access Solutions



Automated People Mover



Terminal Processing



Walking Assistive Devices

- Moving sidewalks
- Electric carts
- Escalators




Way finding: Barrier

Informational vs. Commercial



Source: Kessler McGuiness. 2004



Way Finding: Facilitation



- Simplify maps
- Improve signage
- Enhance lighting



Source: PANYNJ March, 2002





Wayfinding: FIDS

Waiting Reduction

- Security
- Baggage

Aircraft Access



Gate Areas



Aircraft Boarding Bridge



Travel Documentation and Movement In Aircraft



Movement in Aircraft

- Boeing engineers are simulating the experiences of older adults
- Boeing engineers are incorporating their findings into aircraft design



Use of Third-Age Suit



Four Test Flights
Airlines
Alaska
Horizon
Tasks performed



Aircraft Interior Design

- Addition of assist handles
- Easier to use seat belts
- Better aisle illumination
- Appropriate color combinations



Conclusions

- More research is needed
- Multi-disciplinary group needs to
 - Become more engaged
 - Collaborate on solutions
- Design standards need to be developed



Research Recommendations

- Airport access and egress
 - Signage
 - Boarding
 - Number of transfers
- Terminal use
 - Administrative procedures/reduce waiting
 - Expanding circulation areas for carts
 - Signage, maps, FIDS
 - Baggage retrieval
- Aircraft Boarding
 - Jet bridges, lighting, seating, waiting



Research Recommendations

- Integrate design solutions
- Conduct return on investment analysis
- Form a stakeholders group and hold a workshop



For More Information

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