

# ACTIA Technical Advisory Committee

---

## Easter Seals Project ACTION: “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”



Presentation by Richard Weiner

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Study Goal

Enhance ridership experience of wheelchair users (and other mobility devices) while ensuring their safe transportation by transit and other transportation providers

## Purpose of Study

- Document research conducted to date
- Document perspectives of variety of key stakeholders
- Produce document that can be widely disseminated

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Study Methodology

- Literature review – over 50 documents
- Interviewed 22 diverse stakeholders
- Conducted policy roundtable conference call
- Conducted detailed on-line survey of people with disabilities – 118 responses

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Survey of Disability Community

### Objectives:

1. Discover experiences and attitudes related to boarding and riding in transit vehicles, including using wheelchair tie-downs and occupant restraint systems (WTORS);
2. Identify usability information that may not be incorporated in current product designs; and
3. Identify training issues

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Who Responded?

92% mobility device users

About 70% use power and/or manual wheelchairs

Quarter use scooters

Multiple device users - encouraged to select option that best described their situation

Younger age demographic – 63% between 25 and 55, 9% 65+

Web-based survey available online



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Key Survey Findings

### *Transportation Service Usage*

Majority use ADA paratransit (about 75%)

Over 60% use fixed route bus

One-third rapid transit

Less than one-third light rail or streetcar.

65% use some form of fixed route at least monthly



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## ***Boarding and Maneuvering***

17% unable to ride public and/or private transportation services because of their mobility device

- Lifts that did not operate (41%)
- Lifts that malfunctioned while in use (37%)
- Operators who appeared not to be able to operate lifts (34%)

41% of respondents reported that there was “not enough space to turn the wheelchair around.”



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## *Personal Accessories and Equipment*

80% carry backpack

51% carry grocery or shopping bags

41% carry laptop computer or a briefcase

25% say wheelchair tie-downs and occupant restraint systems (WTORS) caused problems with mobility device and/or personal accessories

Usability information that should be considered in the design of transportation systems - further research needed



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## ***Securement Issues***

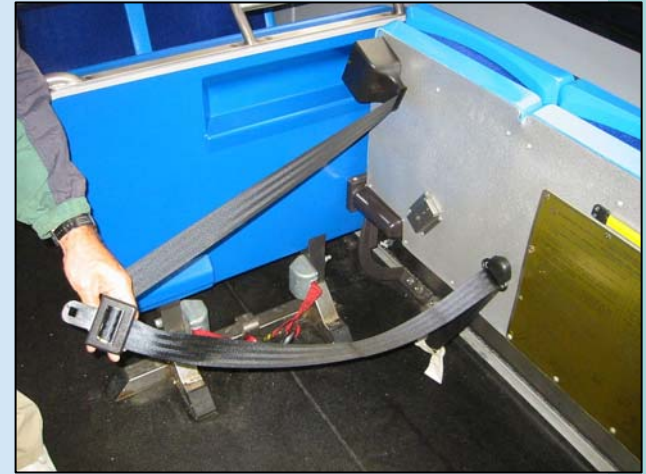
62% want device secured to protect themselves in event of crash

54% want securement because other passengers' safety

45% have devices secured on every bus ride

14% never

Vehicle operator error was the most reported reason for non-use of WTORS



## “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

### ***Securement Issues (cont.)***

20% of the time never ask operators to secure device – embarrassment/ rider’s rushing

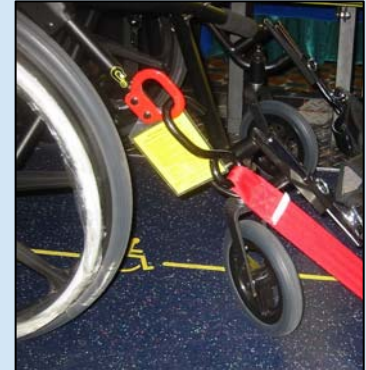
Half reported that wheelchair tie-downs are used with some difficulty or are very difficult to use

29% say occupant restraints usually don’t fit the rider well

45% reported that their device either tipped over or shifted dangerously during rides

## “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

### *Support for WC-19 and Informing Users of this Option*



Overwhelming support for ANSI/RESNA “WC-19” standard (‘transit option’ consisting of permanent brackets or loops on mobility aids for the attachment of vehicle tie-down equipment.)

45% aware of WC-19 - equipped wheelchairs (unrepresentative sample?)

76% would obtain feature (without accounting for cost)

Other wheelchair users **most** important source of information, followed by disability/advocacy organizations and vendors

## “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

### ***Support for WC-19 and Informing Users of this Option (cont.)***

#### ***Training***

Sometimes operators don't secure a wheelchair even when rider asks

39% say attitudes of drivers varies greatly

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## *Conclusions from Survey*

1. Boarding and maneuvering problems
2. Problems with mobility device securement and occupant restraint
3. Training issues and needs

Broad acceptance of recently developed securement standards

Peer-to-peer networks within disability community important means of promulgating information about transit options

For transportation system design, should incorporate measures not only of person and device, but also what users are carrying

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Findings from Literature Review and Stakeholder Interviews

### *Transit Vehicle Issues*

Spaces for wheelchairs and securement equipment not standardized in vehicle interiors

Small vehicles present challenges due to limited interior space and vehicle suspension

Ramps can be a barrier when angle is steep, as allowed by current ADA vehicle guidelines

Aging lifts are a challenge to maintain and operate safely



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## *Wheelchair Design, Purchasing, and Usage Issues*

### Issues with oversized wheelchairs

Oversized, overweight, or less maneuverable wheelchair/scooter/passenger combinations can result in inability to maneuver into or out of vehicles; damage to lifts; and create unsafe weight distribution on smaller vehicles

Transit providers have varying responses to oversized mobility aids, allowing whatever will fit, measuring and denying service to those exceeding “common” definition

Some paratransit agencies are “screening out” oversized wheelchairs during the ADA paratransit eligibility certification process



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Non-wheelchair mobility aids and other items carried

Increased use of non-traditional mobility aids

(Segways, wheeled walkers with seats, orthopedic strollers)

Backpacks, shopping bags, oxygen tanks can impact maneuverability or securement, block aisles – need more guidance

Shopping carts, baby strollers, service animals use wheelchair spaces





# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Transit Operational and Training Issues

### Securement Issues

Some do not want securement - independence, stigma, fear of damage, invasive

Difficulty securing wheelchairs - lack of identifiable securement points, not enough space

Agency policies and information inconsistent; many have “mandatory” securement policies



# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Transit Operational and Training Issues (cont.)

### Securement Issues

Accidents related securement small percentage, but most costly

Training and disability awareness of transit personnel sometimes inadequate - monitoring needed

Some consumers find drivers insensitive regarding securement needs

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## *Regulatory and Policy Issues*

### Lack of progress in making “Transit-safe” wheelchairs available

“WC-19” transit option on only fraction of wheelchairs, unavailable on scooters

Health care funding policies and regulations don’t address transportation capability and safety of wheelchairs

Transit providers, vehicle/equipment manufacturers want mandatory “certification” of transit-usable wheelchairs, but consumer advocates concerned about denying access to non-certified devices.

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Elements of federal guidance are unclear

ADA regulations and guidance sometimes unclear or outdated, but draft revisions recently released

- 2” movement rule is vague with regard to how this should be measured
- Requirement for vehicle operators to push a manual wheelchair up a ramp
- Requirement for “sufficient clearances to permit a wheelchair or other mobility aid user to reach a securement location”
- FTA interpretation allowing “optional” versus “mandatory” securement policy
- Interpretations requiring non-wheelchair devices, such as Segways and walkers to be treated same as common wheelchairs.

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Research, development, and industry standards

Voluntary industry standards and ADA vehicle requirements not harmonized

Some securement systems “overkill” on large urban buses, inadequate on small vehicles

Little government-sponsored demonstration in transportation arena

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Education and dissemination of available resources

Information “transit-safe” wheelchair options (WC-19) not well disseminated

Auxiliary securement aids, such as wheelchair marking and tether straps, not well understood and lack guidelines or dissemination of best practices.

“Travel training” or vehicle orientation sessions and marketing can be used to educate wheelchair users regarding vehicle boarding and securement

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Areas for Best Practices Identified in Literature Review and Stakeholder Interviews

Information available to wheelchair purchasers, users, and prescribers

Transit system policy statements and educational information

Training program elements

Auxiliary aids

Transit Vehicle Design and Equipment

Transit system performance monitoring

# “Status Report on the Current Use of Wheelchairs and Other Mobility Devices on Public and Private Transportation”

## Next Steps

Final Report September 2007



Release by Easter Seals Project ACTION Fall 2007

Comments: [rweiner@nelsonnygaard.com](mailto:rweiner@nelsonnygaard.com) or [djcross@pacbell.net](mailto:djcross@pacbell.net)