

FEATURE



## The Future of Transit Through a Different Lens

*What the Government Accountability Office found after studying the Federal Transit Administration*

By Clifton Hall

In July of 2014, the Government Accountability Office (GAO) released a study of the Federal Transit Administration's role in providing for rural and tribal transit. The GAO is an independent government agency controlled by Congress that investigates government spending and efficiency. The Senate Committee on Banking, Housing and Urban Affairs commissioned the study to investigate how funding is allocated by the FTA to rural and tribal transit providers, how transit activity and service have been changing, as well as the challenges these changes have presented and how providers have reacted to them. This article will describe what the GAO found about how the FTA funds rural and tribal providers, how things are changing, and how this could affect transit providers nationally.

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FEATURE

## Best Practices and New Directions Highlighted at the 21st National Conference on Rural Public and Intercity Bus Transportation

By Pat Weaver

The 21st National Conference on Rural Public and Intercity Bus Transportation was just held at the end of October in Monterey, California. As a barometer of what's happening in improving mobility in rural communities, in my opinion this conference is one of the best. This article will profile some of the major themes of the conference

and, if you weren't able to attend, you are provided a link to the presentations (in Powerpoint form) and information how to contact presenters for more information.

### What is the National Rural Conference?

The National Conference on Rural Public and Intercity Bus Transportation

is a conference with approximately 500 rural and regional transit managers, intercity bus operators, State DOT public transit managers, planners, consultants, researchers, and Federal Transit Administration (FTA) representatives attending from around the country. FTA Acting Administrator Therese McMillan

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### Findings of the study

**Service has grown modestly since 2009.** The GAO observed that most rural and tribal providers use metrics such as population density, elderly and low-income population distribution, and existing service demand to determine the type of service to be offered. Based on Rural National Transportation Database data the GAO examined, more than 60 percent of trips are demand-response, as shown in the report's Figure 3 (see the next page). These pre-scheduled trips are often set up appointments by the customer, allowing a degree of convenience for the transit user, and efficiency in providers' ability to match trips and set routes to minimize vehicle miles. The GAO noted larger rural providers, such as Marq-Tran in the Upper Peninsula of Michigan, were able to operate fixed-route or deviated fixed-route (which follows a fixed route, but deviates to scheduled pick-ups) transit because of similarities in trip patterns and relatively dense populations.

Rural NTD data have shown an increase in rural transit of 4 percent from 2009 to 2012; when interviewed, many representatives of state agencies, as well as local providers, said service seems to have remained level and steady in recent memory. Interviewees believed this increase is primarily because of rising elderly populations in rural areas. As people age, the ability to move becomes more difficult, as does the ability to safely operate a motor vehicle. Seniors become more dependent on family members for rides and access to services, but transit need is invoked when newly transit-dependent traveler has no family member or helper located within a convenient distance to provide transportation.

Representatives from nine of 15 state organizations and 20 of 30 local providers said a bulk of their ridership comes from transit-dependent populations: elderly persons, those with low incomes, and those with a disability. There is significant overlap in these three groups, as elderly people may be disabled, or have a low, fixed income. Interviewees said public transit was often used to link to vital services, including employment and medical trips, with one Colorado provider stating 68 percent of riders used their service to commute. The length of trips varied widely, with some providers covering small municipalities while others cover large swaths of Western states.

**...But costs have risen.** In contrast to the approximately 4 percent modest growth in rural and tribal ridership, operating costs for these providers has increased at a much steeper rate. From 2009 to 2012, Rural NTD data show a 19 percent rise in operating expenses when adjusted for inflation. This is reflected in rising costs per trip (\$10.08 to \$11.56) and cost per mile (\$2.31 to \$2.57), 15 and 11 percent growth, respectively. Interviewed providers pointed to fuel, wage, and

*While a majority of local providers interviewed did not view federal compliance as daunting, over a third believed that compliance processes could be streamlined to be more integrated into day-to-day operations.*

maintenance costs as being the largest contributors to the overall national trend.

The GAO noted that rising fuel prices have contributed significantly to the cost increase. Twelve of 30 providers claimed this as a reason, including the Southeast Missouri Transportation System, who reported that their fuel costs doubled in the past few years because of fuel prices and increased trip length. The GAO reported that diesel has risen in price by 80 percent and gasoline prices have nearly doubled within the 2009 to 2012 time-frame. However, another large expense category, labor costs, had slower growth, and may hold steady. Eight providers noted wages have not increased, and one California transit provider has frozen its wages since 2009.

Operations, including maintenance, have become more expensive despite a wave of new vehicles being purchased. A slight seven percent decrease in vehicle age is attributed to the American Recovery Act, which prompted over 2000 new vehicle purchases in 2010 alone, largely with funding from the bill itself. These funds accounted for \$263 million in expenditures in 2010, the highest level in the 2009-2012 study window.

### How demographic trends may reflect future need

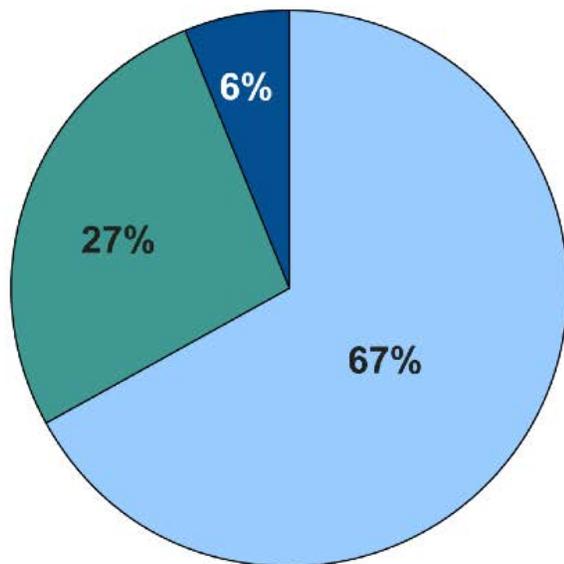
The phenomenon of "aging in place," a term describing seniors remaining in their current residences as they age, coupled with younger populations leaving for more populated areas, have both caused an increase in the average age of rural areas. As this trend continues, states and the providers they coordinate will have to plan for a larger demand caused by aging rural areas. Many national aging and transportation agencies are releasing studies that reflect this trend, and the GAO itself found in a 2011 study that the transportation needs of the elderly may go unmet in the near future, especially those living in rural America. The GAO raised similar concerns in 2012, urging providers to plan for growing demand despite oftentimes scarce funding.

### New challenges and uncertainties

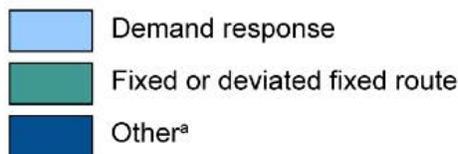
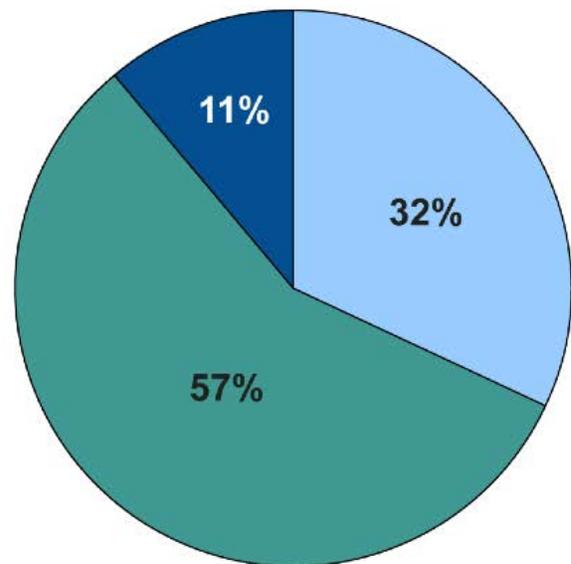
**Compliance and funding challenges.** New challenges to providers are emerging in addition to

**Figure 3: Summary of Rural Transit Service in 2012**

Percentage of rural transit miles driven



Percentage of rural transit trips provided



Source: GAO analysis of Federal Transit Administration data. | GAO-14-589

<sup>a</sup>Other includes vanpools, commuter buses, demand response taxis, and ferryboats

*The number of rural agencies providing only demand-response services is much higher than those providing fixed-route services and/or deviated route services, 62 and 24 percent, respectively (Rural NTD, 2012). This is due to low-density, large service areas typical in many rural communities. The GAO found in their analysis of the NTD data that demand-response services represent 67 percent of the revenue service miles, but only 32 percent of total trips. Fixed route services are less feasible in many very rural communities but, overall, provide more than half of the trips (57 percent).*

typical tasks such as route planning, human resources and marketing roles, coordination, compliance, and funding. A majority of state transit representatives and over a third of local providers interviewed stated coordination was difficult, though it would enhance service in their state or service area. Solutions such as coordination councils, call centers, and regional transit planning were often hindered by vague federal leadership, funding challenges and changing state policies. Agencies that had seen successful coordination cited integrating scheduling and dispatching, as well as increased personal relationships with neighboring providers that allowed service to cross jurisdictional boundaries and ridership projections to be exceeded.

Medical and tribal transit have been especially hard-hit by coordination difficulties. According to three state transit coordinators, new Medicaid regulations have forced non-emergency medical transportation

to coordinate funding through the Affordable Care Act's state-wide brokerages, adding a layer of red-tape preventing local agencies from coordinating directly.

While a majority of local providers interviewed did not view federal compliance as daunting, over a third believed that compliance processes could be streamlined to be more integrated into day-to-day operations. FTA is also completing final rules for Transit Asset Management, a requirement of MAP-21, discussed in the *Kansas TransReporter* article from April 2014 ("Transit Asset Management Systems: What Are They and How Do They Apply to Rural Transit?") The scalability of some of the more complex factors in the TAM process is a major concern of local providers, made aware to FTA through their public commenting process.

**Capital acquisition challenges.** Providers interviewed in the GAO study were generally concerned about the

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### Changes in Tribal Transit Funding

From 2006 to 2012, FTA disbursed on average 70 grants per year to almost 200 tribal transit systems. These grants were awarded on a competitive, discretionary basis as tribes applied, based on need, to the Tribal Transit Program. The Program is separate from the state formula programs. Short-term MAP-21 legislation increased Tribal Transit Program funding by 20 percent from \$25 million to \$30 million. The bill introduces a new, formulaic approach to tribal transit (based on revenue miles) that should lead to a more predictable funding stream for tribal systems maintaining similar ridership and trip patterns.

The new formula approach has increased overall funding to larger tribal providers. Of 83 tribal recipients in 2013 and 2014, 30 received at least 50 percent more funds. In contrast, 32 tribes received a grant reward reduction of more than 50 percent after the change from discretionary to formula bases. This is a reflection of the vehicle revenue miles criterion of the new formula approach, with more active providers receiving more funding. For example, the Poarch Band of Creek Indians received just \$186 dollars in 2014, while the relatively large Chickasaw Nation Transportation Service (generating 1.1 million vehicle revenue-miles) received \$300,000 dollars. The GAO sees this as a potential problem, because even small systems with few passenger-miles provide an essential lifeline to tribal residents.

Photographs from GAO report: <http://www.gao.gov/assets/670/664340.pdf>

procurement of capital assets in the future. Despite an injection of new capital from the Recovery Act, they anticipate a large wave of replacement in the next five years or so. Nearly a third pointed to funding changes in MAP-21 potentially leading to less funding overall for transit. GAO believes based on current trends, however, that funding should remain steady. Also, the new Bus and Bus Facilities Program from MAP-21 provided approximately \$65 million in both 2013 and 2014 to state agencies for rural transportation needs. New programs in future nationwide transportation bills may provide a similar complementary role to the basic funds received through state formula grants.

### Conclusion

The GAO's observation of FTA shows a changing landscape for rural and tribal transit providers. While many day-to-day operations are expected to remain the same, small funding changes may make a big difference for some transit providers.

Transit agencies in Kansas can expect new regulations and planning assistance from KDOT regarding transit asset management and regional coordination. New compliance and funding changes will likely aid state organizations in providing transit to an aging population in rural America. However, as federal transportation legislation is in a state of change, providers must position themselves to make changes in their daily operations which will help them thrive in future transit environments.

*The GAO's observation of FTA shows a changing landscape for rural and tribal transit providers. While many day-to-day operations will remain the same, small funding changes may make a big difference for some transit providers.*

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- Hall C., Weaver P., "Transit Asset Management Systems: What Are They and How Do They Apply to Rural Transit?" Kansas TranReporter, April 2014. Accessed on Nov 24, 2104 at <http://www.kutc.ku.edu/pdffiles/KTR2014-April.pdf>

## Rural conference highlights *Continued from page 1*



<https://hudsondesign.files.wordpress.com/2013/12/wellcar-8.jpg>

*KU professor Gregory Thomas made a presentation at the conference on the "WellCar," a prototype of a sophisticated medical office on wheels under development at the KU Center for Design Research. Student researchers in an advanced industrial design and engineering studio are working to put many devices under one vehicle's roof and develop a means of securely exchanging a patient's medical data to hospitals or clinics where it can be evaluated. Some treatments could be given, and prescriptions written on the spot.*

attended the conference to give FTA awards to outstanding rural agencies nominated by the FTA Regional Offices. A special states' meeting was held at the conclusion of the rural conference, with FTA staff present to answer questions from State DOTs and others interested in the specifics of FTA programs.

The rural conference has been held in different parts of the country every two years (since 1976) and is spearheaded by the members of the Committee on Rural Public and Intercity Bus Transportation of the Transportation Research Board (TRB), with sponsoring organizations FTA, National RTAP, local hosts and cooperating organizations such as TRB, APTA, CTAA and others.

Planning has already begun for the next conference to be held in October 2016. The planning committee is working on site selection now, with final selection planned for January 2015, somewhere in the eastern part of the U.S.

### Major themes of the 21st Conference

The theme of the conference was "Setting Our Course for the Future." To address that theme, a few significant focus areas emerged from the 21st

National Conference program:

- **Innovation.** Innovative approaches to planning and operations were explored to solve unique problems of rural mobility: coordination, mobility management, multi-state intercity bus service, bus safety and security marketing and outreach, to name a few.

- **The intersection of health care service delivery and rural transit.** We were able to get the latest information on the "Well-Car" prototype being developed at the University of Kansas Center for Design Research for delivery of service to rural patients, as well as learn more about the emerging use of Health Impact Assessments in transportation to identify best alternatives to contribute to community-wide health.

- **Technology solutions for coordinated service.** Attendees had the opportunity to learn about the many developments in on-board communication, innovations in GTFS (the feed specifications that drive the transit trip planners in Google) and improving customer outreach through use of technologies.

- **Serving special populations.** A session was presented on travel training programs that help to improve services to older adults, persons with disabilities, and commuters in smaller communities. Attendees also had a chance to learn about some emerging veterans' mobility programs and tools for serving these populations.

- **Sustainability.** Topics included learning about LEED technologies being applied to improve energy efficiency of transit facilities, alternative fuels, livability measures, and transit partnerships with Federal lands and parks.

### How to learn more

In all, there were more than 100 presentations, rich with content and networking, far too many to mention here. If you're interested in learning more about the program of the 2014 conference, visit the conference website at <http://www.ribtc.org>. Click on "Conference Program" to see the detailed program description or on "Powerpoint Presentations" to see PDFs of the majority of the presentations.

If you'd like to contact any of the speakers, you can click on "Speaker and Moderator Information" from the Conference Program page for biographies and contact information.

### Interested in the next conference?

An online call for presentations will go out in the last half of 2015 for the 2016 conference. If you're interested in presenting and/or attending the conference, sign up for the conference email list on the home page. We'll be in touch!

*Pat Weaver, Executive Director of the Kansas University Transportation Center, is also Chair of the TRB Committee on Rural Public and Intercity Bus Transportation and works with the Conference Planning Committee to develop the program and provide technical support to the conference.*

## Top Shops: RTAP's Latest Online Training Resource is Nearing Launch

By Pat Weaver

**T**op Shops, the newest online training program developed by National RTAP, focuses on emergency management in vehicle maintenance facilities. It is nearing completion and should be available to you in late spring 2015. Developed specifically for maintenance managers, supervisors, and staff of small transit agencies (and their contractors), Top Shops covers preparing for, preventing, and responding to accidents and incidents that may occur in vehicle maintenance facilities. These may include personal injuries, structural incidents, fires, hazardous materials and fuel island incidents, and criminal acts.

The program was developed around seven online modules specific to maintenance facilities, the seventh of

which is a managers' online course. The manager's course includes an overview of safety and security policies, plans, and procedures, key safety information, tips for communication, training requirements, measures and equipment needed to ensure safety and security, and key record-keeping and reporting requirements.

Top Shops can be delivered by a professional trainer, but it is designed primarily for in-house delivery by maintenance facility management. The program was developed by Jim Brock of the Dering Consulting Group and is anticipated for release by National RTAP in late March or early April. Kansas RTAP will keep you posted on its availability. ●

**Below**, one of the Top Shop modules from its managers' course is on equipment used for security at the shop. The course is well-organized with navigation tools on the left side of the screen and key points highlighted on the screen. Each module includes a short online quiz to reinforce the learning objectives.

The screenshot shows the National RTAP online training interface. On the left is a navigation menu with 'Security Equipment' selected. The main content area is titled 'Security Equipment' and features a video player showing a facility entrance. A blue overlay on the video lists 'Control access:' with bullet points: 'Fences', 'Locks', and 'Card access'. To the right of the video, two key points are highlighted in a white box: 'Pay attention to security equipment' and 'Limit access to authorized personnel'. The interface includes a search bar, a progress bar, and navigation buttons for 'PREV' and 'NEXT'.

# Subcommittees: The Worker Bees of a Transit Board

By Anne Lowder

**T**ransit boards exist to govern transit operations and provide high-level oversight for operations. These are significant responsibilities, and are difficult to address in depth at regular board meetings. Having subcommittees on key issues can give a board the opportunity to have in-depth discussion with experts in those areas, and with stakeholders in the community. The subcommittee's job is to develop well-considered recommendations for the full board to consider for adoption.

This article will describe some of the typical subcommittees for transit boards, how they function, and the pros and cons of forming subcommittees, by summarizing major points on subcommittees from the National Rural Transit Assistance Program Guidebook titled *Boards that Perform*.

## The Basics of a subcommittee

Subcommittees are groups of persons appointed or selected to perform a function on behalf of a larger group. The duties of subcommittees are to gather information, discuss options and make recommendations to the full board. The subcommittee reports during a board meeting and helps to instill structure to keep your meeting tightly focused. The full governing board may accept, reject, or modify these recommendations using established, formal procedures.

Subcommittees address specific issues that are essential to guiding the decisions of a transit board. Members of the subcommittees can be drawn from members in your community, experts on that committee's area of interest, staff, and board members.

The National Rural Transit Assistance Program guidebook, *Boards that Perform*, recommends that subcommittees should generally have at least three members and not more than seven. The smaller group structure allows for more open discussion on important and complicated issues. Examples of transit subcommittees are shown in the sidebar.



## Examples of Transit Subcommittees

**Finance** – Addresses issues related to grants, purchasing, budgeting, cash flow, and fare structure policies.

**Personnel** – Addresses labor issues, wages and benefits, pension trust, and employee incentive programs.

**Marketing and Planning** – Addresses dissemination of public information and service development planning.

**Operations** – Addresses operational concerns such as service area, accessibility, fare collection systems, and service performance by route as well as service sector.

**Maintenance** – Addresses facility maintenance and improvement, fleet selection, fleet maintenance and storage, parts, inventory management, and other material supply concerns.

**Safety/Security** – Addresses accident performance, changing hazard and threat conditions, emergency preparedness activities, and interagency coordination.

It is important to know that all subcommittees formed by the board and reporting to the board, regardless of who is on them and whether a quorum of board members is in attendance, must follow all public meetings requirements for meeting postings, accessibility and the recording minutes.

In Finney County, Kansas, the seven members of the Finney County Committee on Aging (FCCA) board are appointed by the Finney County

Commissioners. The board then appoints subcommittees such as Meals on Wheels and Transit to work on the specific issues. Bonnie Burgardt, Director of Finney County Transit said, "Subcommittees work great to eliminate long discussions on each issue during board meetings. It is in the subcommittees where issues are discussed and recommendations are made so at the board meeting they are able to vote yes or no on a

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## New Best Practice in Securing 3-Wheeled Scooters

By Anne Lowder

**D**o you ask customers that board your vehicle riding a 3-wheeled scooter if they would like to transfer to a seat? If so, you are following a recommended best practice, because 3-wheeled scooters are difficult to secure. However, if your customer does not want to move to a seat, you can't require it per the Americans with Disability Act (ADA). To address such situations, Q'Straint, a manufacturer of securement straps and devices, has updated its securement recommendations for 3-wheeled scooters. This article outlines Q'Straint's new recommendations.



*Q'Straint recommends that securements for 3-wheeled scooters flare out wider in the back than in the front.*

### New best practice

The National Transit Institute's (NTI) goal for securing wheelchairs is to be able to limit the movement of the device during an incident and to protect the occupant. To meet NTI's goal, Q'Straint recommends that 3-wheeled scooters be secured differently than the way 4-wheeled mobility devices are secured. Q'Straint's *Q5-1160 SC Scooter Securement Instructions* were presented at the Q'Straint and SURE-LOK National Training Seminar in Ft. Lauderdale, Florida on October 1-2, 2014.

For a **4-wheeled mobility device**, NTI best practices state that the tie-downs be attached to the same frame component of the chair (base frame member or seat frame member of the chair). Ideally, both the front and rear tie-downs should be at a 30-45 degree angle. The front tie-downs should be anchored to the floor wider than the chair to stabilize the side-to-side tilting movement of the chair. The rear tie-downs should be anchored directly behind the mobility device to help contain the chair in the securement area and limit forward and back movement.

For a **3-wheeled mobility device**, Q'Straint recommends that the front and rear securement anchor configurations be reversed in terms of how wide they are set (see photo above). The securement anchor points on a 3-wheeled scooter need to flare in the rear and be narrowly set on the front of the scooter.

Q'Straint instructor John Gross demonstrated why they were recommending this change by showing how following NTI's best practice for securement of a 4-wheeled device does not prevent a 3-wheeled scooter from moving beyond what is considered safe. He secured a 3-wheeled scooter with an additional strap looped around the front column of the

**T**he Americans with Disability Act specifies that "when the wheelchair or mobility aid is secured in accordance with manufacturer's instructions, the securement system shall limit the movement of an occupied wheelchair or mobility aid to no more than 2 inches in any direction under normal vehicle operating conditions." 36 CFR 1192.23 (d)(5)

scooter with the two front tie-downs secured by attaching to either side of the additional strap. The front tie-down anchor points were flared. Gross was easily able to pull the scooter back and forth using that method of securement, with much more than the ADA-recommended two inches of movement.

Switching the anchor point configuration for a 3-wheeled scooter so the straps flare more widely at the rear and narrowly at the front lessens the scooter's movement to the two inches of movement under normal vehicle operations.

### Summary

Securement of 3-wheeled scooters is difficult because of the lack of solid frame securement points. Q'Straint and National Transit Institute highly recommend that scooter occupants transfer to a bus seat if they can and will transfer. Explain to your customer why transferring to a seat makes good safety sense. Plus, it would be a more comfortable ride.

However, agencies, under the ADA, cannot require a person to transfer. Q'Straint has provided some helpful guidance to

improve safety for a passenger who prefers to remain in the 3-wheeled scooter.

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## Board subcommittees *Continued from page 7*

subcommittee's recommendation."

The bottom line: Subcommittees bring depth and efficiency to a board.

### Pros and cons of subcommittees

The pros of using subcommittees include the opportunity for more thorough research and consideration of information. Subcommittees take the varied responsibilities of the transit board, separate them and narrow them into specific issues. The subcommittee members study their assigned issues using experts in the field, discussing options and best practices with business partners and citizens, and report on their findings and make recommendations back to the board. The transit board can then use the in-depth information and recommendations provided by the subcommittees to make informed decisions.

The cons using of subcommittees include increased staff time involved in preparing for the additional meetings and supporting the subcommittees. Important discussion of high-impact decisions may be held away from the full board.

Some topics, such as setting the policy for the agency and monitoring the agency's operations are better served if they are discussed by the full board at a regular board meeting.

Another con: the potential for micro-management. Board members who serve on subcommittees may stray into wanting to take responsibility for things not within board authority. If the subcommittee is examining something more operational than governing/ oversight in nature, any board member on that subcommittee needs to be careful to step back into the general oversight role once the board acts on the subcommittee's decision and management takes it from there.

### Are subcommittees needed indefinitely?

Some subcommittees are "standing," with duties with no fixed endpoint. They exist to provide ongoing input, such as a safety and security subcommittee or a finance subcommittee. Other subcommittees may be ad hoc, appointed with well-defined charges and deadlines, after which they will cease to exist.

Frequently boards will use ad hoc committees to research and report on recommendations for building additions/ expansions, technology upgrades, or major changes in operations. It is important that the scope of the work of any subcommittee be narrowly

and clearly defined by a set of detailed guidelines voted on by the board.

### What about a small agency? Do they need subcommittees?

Small boards, in small communities, may not have access to enough people to create viable subcommittees. Instead, the board as a whole could function as a subcommittee. A special board meeting would be held as a work session to discuss a single topic in detail, to make a recommendation to be taken up for a vote at a future regular board meeting.

### Conclusion

Warren Buffett said; "Risk comes from not knowing what you're doing." A transit board without subcommittees poses a risk for the transit agency and its operations. No one person or transit board can be an expert in all things transit and the needs of the community. Appointing subcommittees on specific issues, allowing the subcommittees to research and discuss the specific issues, and prepare reports and provide recommendations on those specific issues to the transit board helps the board make informed decisions. For more information, read the National RTAP resource at the link below.

## Source

- The National Rural Transit Assistance Program (NRTAP) resource: Boards that Perform Roles and Responsibilities of Transit Board Members. January 2008. [http://web1.ctaa.org/webmodules/webarticles/articlefiles/BoardsThatPerform\\_v5\\_WEB.pdf](http://web1.ctaa.org/webmodules/webarticles/articlefiles/BoardsThatPerform_v5_WEB.pdf)

# Corrosion and Wear in Securement Devices

*Where to look for corrosion and wear, and how and why to avoid it*

By Anne Lowder

**C**orrosion and debris can damage the L-Track on your transit vehicle and keep the wheelchair securement components from locking into place. This article will stress the need to be diligent about inspecting and maintaining your L-Track and Wheelchair Tie-Down and Occupant Restraint Systems (WTORS).

## What to look for

The L-Track installed in your vehicle is constructed from aluminum alloy to help protect it from corrosion but it can still corrode when day-to-day environmental conditions such as rain, snow, ice, mud de-icing chemicals and road salt get into and around the L-Track.

The track metal is especially prone to corrosion at the points where the track makes contact with and is bolted to the bus floor. Q'Straint recommends that the gaps between the track and flooring be caulked to prevent moisture from being trapped in these areas. Trapped moisture and moist debris such as leaves lead to corrosion of the track and track bolts.

The L-Track should be inspected for debris and corrosion as part of the daily pre-trip inspection. In addition, the L-Track should be inspected quarterly for deterioration (wear) of the metal around the edges of the track holes and corrosion of the track and track bolts. The bolts that secure the track to the floor are inserted in 4-inch increments. Each bolt should be checked to make sure it is tight. Replace corroded bolts with replacement parts certified by the manufacturer.

It is important to not secure a wheelchair to a corroded or a damaged L-Track. Q'Straint instructor Chris Yarber stated at a recent national training event: "Do not use a damaged L-Track but replace it immediately. A damaged track could fail during an incident."



## MAINTENANCE TIPS FOR SECUREMENT EQUIPMENT

**T**he photo above shows an older retractable strap with an S-hook that has rusted into place in the track. To help avoid damage like this:

- Always keep securement belts and retractors clean and off the floor by using a storage device such as Q'Straint's wall pouch. One storage device per wheelchair location is recommended.
- All systems and components should be regularly inspected and cleaned.
- Clean belts periodically with mild soap and water. After cleaning, fully extend the belts (and position them to prevent water from entering retractors) until completely dry. Take care to prevent contamination of the belts with polishes, oils or other chemicals (particularly battery acid).
- Occasionally lubricate tie-down buckles at the hinges, being careful not to contaminate the belts.
- Clean bolt threads and re-install permanent thread locker when replacing bolt.
- Frayed, contaminated or damaged belts should be replaced.
- Broken and worn components should be replaced.
- Systems or components (including those permanently secured to floor or wall) suspected to have been in use during a vehicle impact from which the vehicle has been towed, should be replaced.

Adapted from Q'Straint Installation Instructions: Vehicle Anchorages and Accessories for 4-Point Wheelchair Securement Systems, 2009.

## Check for free movement

The L-Track has several securement location options (holes) to be able to accommodate wheelchairs of different sizes and designs. The securement device locks into one of these holes and needs to

move freely along the track before locking into place. Check for free movement by testing the plunger portion of the retractor securement device to make sure it can securely lock in place at each hole. If the fitting becomes stuck as you move

*Q'Straint recommends that its securement equipment on your vehicles be inspected during each pre-trip inspection and also quarterly with a complete WTORS Evaluation Report. The company provides maintenance instructions, webinars and reporting documents on its website.*

it along the L-track or the plunger does not lock into place, inspect the track to determine why. Possible reasons that the fitting will not secure are: corrosion of the L-Track, wear around holes into which the plunger locks, and debris in the track.

#### **Look for fastener corrosion**

The retractor component of your securement system is constructed from hardened steel and coated in zinc for maximum corrosion resistance. However, environmental conditions (the same as with the L-Track) can damage the retractor.

Also, leaving the retractor in the L-Track instead of storing it properly in its storage pouch (ideally mounted on the bus wall) can create situations where the retractor can be damaged. To illustrate, Chris Yarber told a Q'Straint class of a situation where a boarding wheelchair rolled over a retractor that was locked into the L-Track instead of being stored properly in its pouch. The weight of the wheelchair bent the pin on the retractor that secures the lap and shoulder belt. Maintenance staff used a vice to bend the pin back into place. The retractor then failed during an incident, creating an



Photos by Kansas RTAP / A. Lowder

*These are examples of poor maintenance. **At left**, a securement device has rusted into place because it had not been checked periodically for free movement. **At right**, accumulated moisture has caused corrosion at the end of the track. Debris is also visible in the track. In the event of an incident, the securement device might fail, endangering the passenger in the secured wheelchair, and others in the vicinity.*

injury. Q'Straint was sued but not found liable because the transit agency had not followed manufactured-provided best practices in maintenance, inspection, and storage of the equipment, and had used damaged equipment to secure a wheelchair and wheelchair occupant.

#### **Document your inspection**

It is important to document inspection and maintenance procedures you perform on of the Wheelchair Tie-Down and Occupant Restraint Systems (WTORS) in your vehicles. Q'Straint recommends that WTORS on all vehicles not only be inspected during a pre-trip inspection

but also have a complete Q'Straint WTORS Evaluation Report done on a quarterly basis. Instructions, webinars, and reporting documents for the WTORS Evaluation Report can be found on Q'Straint website: [http://www.qstraint.com/en\\_na/training/fleet-evaluation](http://www.qstraint.com/en_na/training/fleet-evaluation).

#### **In sum**

Proper inspection and maintenance of your L-Track, securement devices, and straps will help prevent damaged equipment that could lead to an unsafe wheelchair restraint system. For safety and liability reasons, make sure all your transit vehicles' WTORS are well maintained. ●

#### **Sources**

- Q'Straint. Inspect and Protect: Fleet Evaluation Program handouts. Ft. Lauderdale, FL. October 1-2, 2014.
- Q'Straint. 2014 Q'Straint and SURE-LOK National Training Seminar handouts. Ft. Lauderdale, FL. October 1-2, 2014.
- Q'Straint. Installation Instructions: Vehicle Anchorages and Accessories for 4-Point Wheelchair Securement Systems. 2009. Pg 13. Accessed November 13, 2014. <http://cdnll.discounttramps.com/images/art/Q5-1150.pdf>



to identify and coordinate area employers providing vanpool services to employees and having them cooperate to promote vanpool availability.

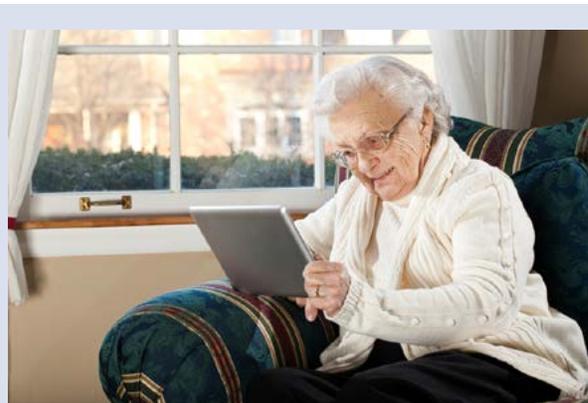
**2) Island & Skagit Counties Coordinated Public Transit-Human Services Transportation Plan.** Skagit Transit, in northwest Washington State, promotes awareness of available services (dial-and-ride, vanpool, fares, etc.) on its website (<http://www.skagittransit.org>). Island Transit, the other major provider in the area, also gives users the ability to sign up for alerts and take transit surveys at their website (<http://islandtransit.org>). The coordinated plan for these agencies includes an initiative to develop awareness-based marketing campaigns to promote the ways organizations in the community are encouraging the use of transit for their customers and employees, including assistance such as bus passes, gas vouchers, and subsidies.

The plan points out that a marketing campaign could be developed to promote transit services, but should only be undertaken if transit providers are confident they can continue to operate efficiently with increased demand. The overall goals identified in the plan for cooperative marketing include: maintain financial stability, preserve existing services, expand services to alleviate overcrowding, and provide service to new areas.

**3) Washtenaw County-Ann Arbor Plan.** Marketing of transportation services, especially those already available to the public, was a major need identified by this plan for the Ann Arbor, Michigan area. The plan recognized that increasing customer awareness is vital to meeting customer needs. The plan recommends placing public service announcements on radio and TV, and posting them on buses and at bus shelters. It also recommends cooperative promotion of available transit through agency websites, an informational phone line, and direct mail.

### In sum

By using the common goals found in a coordinated services plan, transit providers can work together with other transit stakeholders in their area, instead of competing for the



### More Seniors Using Email

Many coordinated services plans emphasize mass communication as a strategy to raise awareness. When thinking about mass-promotion and information distribution among senior populations, email might be a better option than it might appear. 76 percent of older baby boomers (ages 56-64) use the internet, and 93 percent of those use the internet for email. Though only 58 percent of 65 to 73 year-olds use the internet, 90 percent of those who do are active in using email. As the population continues to age, it can be expected their ability to receive mass-communication via the internet will increase with these trends.

www.shutterstock.com / Jim David

same customer base. We've shown you just a few examples above. By acting cooperatively, transit providers can provide much more benefit to the community than if they were all acting independently. Consider partnering with other providers in your service area to share advertising costs, share responsibilities, and reach out to new clients together.

### Sources

- GovDelivery, "Tech-Savvy Senior Citizens on the Rise". July 7, 2012. Accessed on Feb 12, 2014 at <http://www.govdelivery.com/blog/2012/07/tech-savvy-senior-citizens-on-the-rise/>
- Island & Skagit Counties Coordinated Public Transit-Human Services Transportation Plan, p. 3. Nov 2010 Accessed on Feb 12, 2014 at <http://www.wsdot.wa.gov/acct/hstpl/library/reports-studies/S%20I%20RTPO%20Plan.pdf>
- Spector, D, Loud & Clear – Successfully Marketing you Nonprofit. Jun 15, 2012. Accessed on Feb 12, 2014 at <http://www.slideshare.net/specvic/load-clear-successfully-marketing-your-nonprofit-13344249>
- Michiana Area Council of Governments, Public Transit—Human Services Coordinated Transportation Plan, 2013-2014 Updates and Revisions. December 2012. Accessed on Feb 24, 2014 at <http://www.macog.com/PDFs/Transit/TransitCoordinatedPlan12.pdf>
- Hensley-Quinn, M, "Writing a Coordinated Human Service Transportation Plan". Fall 2006. Retrieved on Feb 24, 2014 at <http://www.ctaa.org/webmodules/webarticles/articlefiles/writingcoordplan.pdf>
- Hansle, V, Washtenaw County Ann Arbor Urbanized Area Coordinated Public Transit-Human Services Transportation Plan. 2010. Accessed on Feb. 24 2014 at [http://www.semco.org/uploadedFiles/Programs\\_and\\_Projects/Transportation/Transit/Washtenaw\\_County\\_Urban\\_Coordinated\\_Plan\\_5\\_2010\[1\]\[1\].pdf](http://www.semco.org/uploadedFiles/Programs_and_Projects/Transportation/Transit/Washtenaw_County_Urban_Coordinated_Plan_5_2010[1][1].pdf)

## How To Reach Us

To contact one of our faculty or staff members, call toll-free (800) 248-0350 (in Kansas) or (785) 864-2595 (outside Kansas). Send correspondence to:

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Send e-mail messages to Pat Weaver at [weaver@ku.edu](mailto:weaver@ku.edu) or Lisa Harris at [LHarris@ku.edu](mailto:LHarris@ku.edu). Visit our website at <http://www.ksrtap.org>

## Kansas RTAP Staff

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Clifton Hall, Pat Weaver

## Other Services

In addition to publishing the *Kansas TransReporter*, Kansas RTAP offers a variety of other educational services. Following is a partial list of these services:

- Publication dissemination
- Program planning assistance
- Technical assistance
- Video lending library
- Telephone consultation
- Computer database searches
- Training development
- Referral services
- Website
- Email discussion group

## Easter Seals Webinars Now on YouTube

By Anne Lowder

**H**ave you visited the Easter Seals Project Action (ESPA) channel on YouTube? There you can watch and listen to ESPA webinars on a range of topics concerning accessible transportation, many of which are related to transit. The channel allows you to access both recent and archived webinars.

Go to <https://www.youtube.com/channel/UCczvnJ87XZ2lbyvwSGt90IQ> and a playlist of 12 webinars will come up. The webinars include text, photographs and narration by a variety of speakers who are experts in their fields. Transit-related topics include:

- Map 21: The New Section 5310 Program
- Transit Call Centers: A Front Line in Customer Service
- FAQ on the ADA Fixed Route and Paratransit
- Stop Announcements: Guideposts on the Path to a Successful Trip
- Transit Call Centers: A Front Line in Customer Service!
- Accessible Transit and Emergency Preparedness Planning
- Local Accessible Transit Policy Development

*This screen shot shows the ESPA home page and three of the 12 webinars available at the site. To view a webinar at the site, you simply click on the title.*

The screenshot displays the YouTube channel for Easter Seals Project ACTION. The channel name is prominently displayed at the top. Below the name are navigation tabs for Home, Videos, Playlists, Channels, Discussion, and About. A dropdown menu for 'All activities' is visible. The main content area shows a list of video uploads. Three specific videos are highlighted with their titles and details:

- Easter Seals Project ACTION webinar: Map 21 - The New Section 5310 Program** by Easter Seals Project ACTION, 3 months ago, 143 views. Webinar Date: September 11, 2014.
- Easter Seals Project ACTION webinar: Neighborhood Wayfinding: What you need to...** by Easter Seals Project ACTION, 4 months ago, 91 views. Webinar Date: August 6, 2014.
- Easter Seals Project ACTION webinar: Stop Announcements: Guideposts on the Path to a...** by Easter Seals Project ACTION, 4 months ago, 38 views. Webinar Date: February 13, 2013.

[www.youtube.com](http://www.youtube.com)

# Transit Resources

## CONFERENCES

### SWTA and NMTA Joint Conference and EXPO

March 1-4, 2015 in Santa FE, NM. [http://www.swta.org/news\\_events/details/swta\\_nmpta\\_joint\\_exp](http://www.swta.org/news_events/details/swta_nmpta_joint_exp)

### Community Transportation Association of America (CTAA) EXPO 2015

May 31-June 5, 2015 in Tampa, FL. <http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=3948&z=5>

## TRANSIT RESOURCES

### ADA Guide for Rural Demand-Response Transportation Service Providers

This booklet explains ADA regulations for vehicles, service policies, and etiquette for smaller, rural operators. November 17, 2014. Easter Seals Project Action. 25 pages. <http://www.projectaction.org>

### TRB's Transit Cooperative Research Program Report 172: Guidance for Developing a Transit Asset Management Plan

Provides tools and guidance to improve asset management. 121 pages. December 23, 2014

<http://www.trb.org/PublicTransportation/Blurbs/171285.aspx>

### Used Oil Recycling: Getting Extra Mileage Out of Your Motor Oil

This technical brief explains the different options for recycling used motor oil and provides two examples of transportation providers burning their used oil for heat. 8/14/2014. National RTAP. 6 pages.

Order below or download <http://demopro.nationalrtap.org/emailResource.aspx?fileid=1019&design=1&org=a2GSpnDbrul=>

### Seasonal Flu Resources

The resources in this guide will help your transit agency and passengers minimize the effects of this year's flu season through knowledge and planning. 1/8/2015. National RTAP 2 pages.

Order below or download <http://demopro.nationalrtap.org/emailResource.aspx?fileid=736&design=1&org=a2GSpnDbrul=>

## TRAINING PROGRAMS

### Transit Call Centers: A Front Line in Customer Service!

Easter Seals Project Action webinar on YouTube. March 27, 2013. [https://www.youtube.com/watch?v=4gFSV\\_gtGNg](https://www.youtube.com/watch?v=4gFSV_gtGNg)

### Accessible Transit and Emergency Preparedness Planning

Easter Seals Project Action webinar on YouTube. September 18, 2013. <https://www.youtube.com/watch?v=CAJYgnTBkel>

## ORDER FORM

A few of our above resources are available in hard copy for readers who do not have internet access. These resources have a checkbox in the listing. Check the item(s) you would like to receive and fill out the form below. Fax to (785) 864-3199.

Name \_\_\_\_\_ Title \_\_\_\_\_

Agency \_\_\_\_\_ Phone \_\_\_\_\_

Street Address \_\_\_\_\_ E-mail address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip+4 \_\_\_\_\_

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**SHARE!**

If you know individuals who would like to receive our newsletter, please have them go to: <http://www.ksrtap.org> and sign up for the Kansas RTAP email list. There is a box to check to request electronic notification of each new issue of the TransReporter. Back issues are available at our website in the newsletter archives section.



The *Kansas TransReporter* is an educational and technology transfer newsletter published quarterly by the Kansas University Transportation Center (KUTC). The newsletter is free to rural and specialized transit providers and others with an interest in rural and specialized service.

The *Kansas TransReporter* is co-sponsored by the Federal Transit Administration under its Rural Transportation

Assistance Program (RTAP) and the Kansas Department of Transportation.

The purposes of the RTAP program are to: 1) educate transit operators about the latest technologies in rural and specialized transit; 2) encourage their translation into practical application; and 3) to share information among operators.

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## Calendar

**2015 KANSAS RTAP TRAINING:**

**Maintaining and Troubleshooting Your Bran Lifts: BraunAbility Training Program**  
 February 16 Lawrence  
 February 17 Salina  
 February 18 Garden City  
 February 19 Girard

**Responding to Emergencies in Rural Transit**

March 11 Moundridge  
 March 12 Ottawa  
 May 13 Olathe  
 May 14 Topeka

**Techniques for Driving Defensively**

April 15 Pittsburg  
 April 16 Leavenworth  
 June 10 Garden City  
 June 11 Salina  
 June 24 Russell  
 June 25 Wichita

**Passenger Assistance for Rural Transit Operators**

April 8 Oakley  
 April 9 Mayetta  
 May 6 Winfield  
 May 7 Emporia

**NTI Violence in the Transit Workplace – Prevention, Response and Recovery (Train the trainer)**

May 20 Salina

**Evacuation Techniques for Rural Transit Passengers**

May 27 Salina  
 May 28 Manhattan  
 June 17 Hutchinson  
 June 18 Independence

Also available to transit agencies are two hands-on training opportunities:

- **Advanced Mobility Securement**
- **Evacuation Techniques for Rural Transit Passengers**

Contact Anne Lowder at 785-864-1469 or [alowder@ku.edu](mailto:alowder@ku.edu) to host and schedule these training sessions in your area July through November.

*\*\*To register for a Kansas RTAP workshop, go to <http://www.ksrtap.org>. Click on "Register to attend." Questions? Contact Kristin Kelly at (785) 864-2594 or [kbkelly@ku.edu](mailto:kbkelly@ku.edu).*

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