



Making Headway

An Update on the National Rail Car Training Consortium

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PLUS:



Rail Car SMEs talk about their own career choices in the Center's promotion of transit frontline jobs.

National Rail Car Consortium Begins Work on Phase II

Under the Rail Car Consortium, 16 rail transit locations and more than 40 Subject Matter Experts (SMEs) have worked since 2015 to produce high-quality training material for rail car techs. So far we have developed more than 160 hours of training across 16 courses, with more in the pipeline. We will have 35 courses by the time Phase II is complete at the end of 2019 (See table below for Phase I and II course topics).

getting a better training product at a lower cost than if each tried to do this alone. Agencies are paying about 3 percent of total costs of development and gaining the advantage of knowledge from SMEs across the country.

Consortium materials are used to support local training programs, preparing technicians for new fleet implementation or existing fleet refurbishing. Frontline technicians in Consortium training pilots have achieved 40% learning gains.

Banding together across locations, member agencies are

Phase I (2015-2017)	Overview of Rail Car Subsystems	Propulsion/ Dynamic Braking	HVAC	APS & Batteries	Doors	Friction Brakes	Troubleshooting Principles
Phase II (2018-2019)	Current Collection & Distribution	CBTC	Communication	Trucks & Axles	Couplers	Car Body	

Save the date for the next National Rail Car Consortium meeting: April 23 - 27 2018. San Diego, CA.

Building the Next Generation of Rail Car Technicians

With the expansion of rail services and the retirement of experienced rail car technicians, many rail agencies are struggling with hiring, training and retaining enough qualified people. The rail transportation workforce is older than the overall transportation workforce, and significantly older than the general working population. At several Rail Car Consortium member agencies, the average age of new hire rail technicians is between 45 to 50.



At the same time the Consortium courseware is supporting the implementation of local registered apprenticeships at member agencies, the

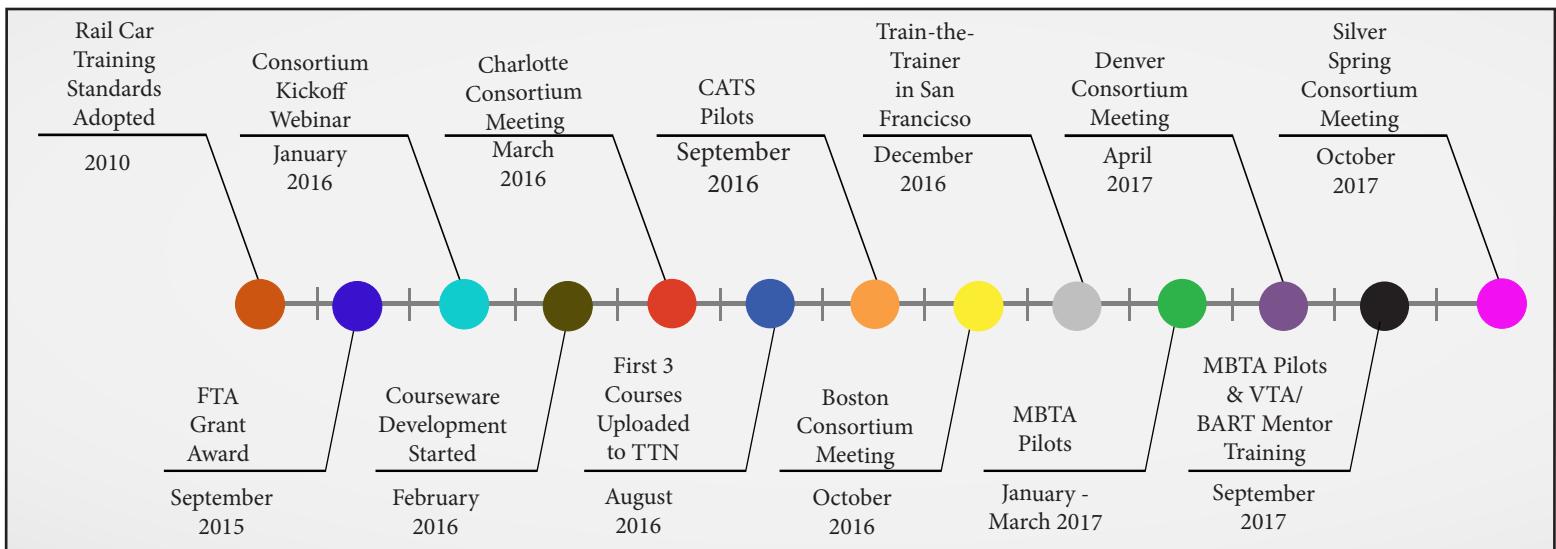
Transportation Learning Center is carrying out related activities to help inject new blood into the industry. The Transit Core Competencies Curriculum (TC3), designed by the Center and industry Subject Matter Experts (SMEs) from various frontline occupations, helps

prepare participants for entry into and success in early training pre-apprenticeship and apprenticeship programs that provide the foundation for frontline careers in the industry. It serves as a bridge, providing the critical connection in a pathway leading from general academic and personal competencies developed in school or through workforce development programs to specifically transportation and transit-focused training and education.

This dynamic curriculum has been piloted in three locations so far. In two of these, Boston and Denver, Consortium SMEs Doug MacElhiney, Dustin Hughes and Justin Hrubes were directly involved in the development and delivery of content.

To strengthen TC3 and present an insiders' view of frontline transit careers to young people and community members, the Center interviewed over two dozen Consortium and Committee members, including four Rail Car Consortium SMEs, about their careers pathways, the work they do, and what that work means to them and to the community. Excerpts of these interviews will be integrated into the TC3 curriculum. The SMEs quotes in this newsletter were adapted from these interviews.

Rail Car Consortium Timeline





“There are 38 ‘women in trades’ employed at SEPTA – I’m the only one in my shop. I tend to use the crane a little bit more maybe, but other than that, it’s about the same [as men]. I get to work with my hands; it’s active. Sometimes you come across different problems that you’ve never seen before so you actually have to think and troubleshoot and find solutions. [I]t’s important to make sure the bolts are torqued right, that this air valve is working properly, because you’re responsible for lives and for people being able to get to work on time, and to go pick up their child on time.”

Gwendolen Gibson – SEPTA – Rail Vehicle Maintainer

Talking about working as one of the “women in trades” in public transportation

GCRTA and ATU Local 268 Railcar Apprenticeship is Approved by the Ohio State Apprenticeship Council

On October 4, 2017, the Greater Cleveland Regional Transit Authority (GCRTA) and Amalgamated Transit Union (ATU) Local 268 received approval of their Rail Car Technician Apprenticeship program from the Ohio State Apprenticeship Council. GCRTA and ATU Local 268 have been working with the Center for the last two years to develop, implement, and register their rail car apprenticeship program. This 30-month apprenticeship program provides GCRTA with the opportunity to develop a pipeline of skilled employees, which addresses the need to fill hard to find, specialized, highly technical positions. These types of initiatives are critical to GCRTA workforce needs as GCRTA’s rail operation is the only one of its kind in Ohio. It involves a combination



Standing: Perry Osbey-ATU Local 268, Eric Cunningham-ATU Local 268, Wayne Bender-ATU Local 268, Ed Kawecki-GCRTA, George Fields-GCRTA
Sitting: Ronald W. Jackson Sr.-ATU Local 268, Bruce E. Hampton-GCRTA.

of supervised on-the-job training, classroom instruction, and mentoring in order to develop skilled employees in all phases of the industry.

Additionally, GCRTA and ATU Local 268 are participating in the Rail Car and Signals Consortium Curriculum, which will provide the transit industry with standardized courseware that can be a value added in this new apprenticeship program.

Consortium Metrics

Technicians Receiving Pilot Training



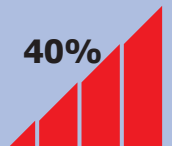
42 Training Opportunities

15 Modules Piloted



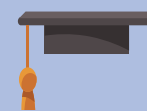
386 Total Learning Hours

Pre- and Post-assessment Improvements



Mentor Training

3 Participating Locations



21 Certificates Issued

168 Total Learning Hours





National Rail Car Consortium Holds Fourth Meeting in Silver Spring, Maryland

In October 2017, the National Rail Car Consortium (the Consortium) held its fourth in-person meeting in Silver Spring, MD, in conjunction with the Center's Making Connections conference. During the week, subject matter experts comprised of one management representative and one labor representative from over 40 public transportation agencies took a deep dive into their areas of expertise to discuss, develop, and verify courseware topics, apprenticeship and mentorship models, and industry best practices. Five industry training consortia and committees were involved:

- Transit Elevator/Escalator Training Consortium
- Signals Training Consortium
- Rail Car Training Consortium
- Transit Coach Operator Committee
- National Joint Bus Apprenticeship and Training Committee

The Rail Car SMEs worked through several intensive courseware development team sessions to refine course materials on Friction Brakes and Doors, and develop the learning objectives and identify resources for two new courses on Current Collection and Communication-based Train Control.

On Thursday the SMEs, joined by a good showing of outside conference attendees, came together for the Center's "Making Connections" conference. Here, in three plenary sessions and a series of six workshops, panelists and speakers from agencies, unions, government, and non-profits examined the current trends and future predictions of the public transportation industry as a whole - but always with an eye on people - both the workforce and the riding public.



To watch the videos of the three plenary sessions, visit our Vimeo page at: <https://vimeo.com/user50935266> or click on the links below:

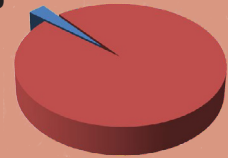
- [Morning Plenary Session](#) - Who Will do the Work: Transit's ongoing Challenge Recruit, Train, and Retain its Frontline Workforce
- [Lunch Plenary Session](#) - A Vision for the Future of Transportation
- [Closing Plenary Session](#) - Onward & Upward: Transportation in 2030 and Beyond.



Consortium Metrics

Cost Sharing

3%



Individual Agency's Share of Cost

9600

Minutes of Classroom Ready Courseware



16 Courses Developed (and counting)



Instructional Videos Produced

Members of the National Rail Car Training Consortium*

BART	SEIU 1021	MBTA	ATU 589
CATS		NFTA	ATU 1342
CTA	ATU 308/IBEW 9	PATCO	
DART (Dallas)	ATU 1338	San Diego MTS	
Denver RTD	ATU 1001	SEPTA	TWU 234
GCRTA	ATU 268	SFMTA (MUNI)	IBEW 6
LACMTA	ATU 1277	WMATA	ATU 689
Maryland MTA	ATU 1300	VTA	ATU 265

*as of December 2017



"Some of the fun things we do at work is, we get to "play" with trains. That's part of our job. Every day we have a new situation, it's always a new and interesting challenge. What I find interesting – and what we are very proud of is – we are providing a service to the people.

Give transportation a look. I would say go and explore transportation and the careers and types of positions and jobs that are available in transportation. It's a very interesting world; it's a very interesting industry."

Jose Angel Gonzalez – LACMTA – Rail Vehicle Maintenance Instructor
Talking about the interesting aspects of his work



"We have great benefits; the pay is really good. The work is rewarding to me and I don't see our jobs ever being outsourced; they need hands-on on this equipment. It's very important to the city to have a fully functional transportation system. To be a part of it is an accomplishment. There are also opportunities to rise – I started as a mechanic, now I'm a supervisor in the maintenance training division."

Sal Syquia – SFMTA – Maintenance Trainer

Speaking to the benefits and upward mobility of working for a public transportation agency

Consortium Continues to Add New Instructional Videos to Courseware

Building on efforts to include more instructional video into Consortium courseware, the Center has recently completed several additional videos. The first three of these new videos were filmed at Denver RTD, and include two videos for the upcoming "Doors" courseware plus a lockout-tagout video which will become a part of the 100 level "Introduction and Overview" course.



developed six videos for the Propulsion and Dynamic Braking courseware. This series of videos begins with Working Safely around the Rail Vehicle and also includes: Inspection of the Chopper Circuit, Propulsion Diagnostics, Inspection and Maintenance of the High Speed Circuit Breaker, Inspection and Maintenance of Braking Resistors, and Inspection and Maintenance of Switching and Filtering Components.



Then, after a day-long video shoot at WMATA's maintenance facility in Greenbelt, Maryland, we

The videos will be made available to Consortium members online and will be linked to from the courseware itself.

Each issue we will feature one member of our talented ISD and Project team.

Kristen Ribaldo is the Center's Instructional Systems Design Consultant, interacting daily with Rail Car Consortium Subject Matter Experts (SMEs) to develop national courseware for rail car techs. She joins the Center with experience in teaching ESL in public schools and designing English learning programs for the Royal Saudi Navy. She holds a Master's in Education from The College of New Jersey and a certificate in Instructional Systems Development from UMBC. She is currently leading courseware development for rail vehicle doors as well as Communications-Based Train Control.



California Rail Car Mentor Training Builds On-the-Job Learning at BART, VTA

The Center thanks the following Consortium Subject Matter Experts for their knowledge and dedication:

On September 28, the Santa Clara Valley Transit Authority (VTA) and Amalgamated Transit Union (ATU) Local 265 hosted a mentor training session in San Jose sponsored by the National Rail Car Training Consortium in partnership with the Joint Workforce Investment (JWI). Stuart Bass, from the Keystone Development Partnership, led the session to prepare the five mentors for facilitating the on-the-job-training (OJT) component of the VTA/ATU rail vehicle maintenance training program.



Ten rail car mentors from BART receiving certificates for completing mentor training.

The class explored learning styles and communication to enhance the mentor trainee relationship.

On September 29, BART and SEIU Local 1021 hosted the mentor session in Hayward, CA, for ten mentors. The mentors bring over a hundred years' experience in rail vehicle maintenance to the program. The group discussed how to improve the program and expressed great commitment to transfer their knowledge to trainees.



Stu Bass, instructor for the Rail Car Training Consortium mentor training session (left), with VTA rail car mentors.

- Jeff Raven – BART
- Gabriel Soto – BART/SEIU 1021
- Eugene Capote – CATS
- Silvester Fulmore – CATS
- Christopher Sandoz – CTA/ATU 308
- Thaddeus White – CTA
- Noah Chea – DART/ATU 1338
- Arthur Lowery – DART
- Juston Hrubes – Denver RTD
- Dustin Hughes – Denver RTD
- Doug Schneider – GCRTA/ATU 268
- Dan Tighe – GCRTA/ATU 268
- Marcos Martinez – LACMTA/ATU 1277
- Jose Angel Gonzalez – LACMTA
- James Brodie – MD MTA
- John Nescio Jr. – MD MTA/ATU 1300
- Richard Gonzalez – MBTA/ATU 589
- John Graveson – MBTA/ATU 589
- Doug MacElhiney – MBTA/ATU 589
- Darren Haag – NFTA
- Ron Smith – NFTA/ATU 1342
- John E. Barrett – PATCO
- Jim Clear – SDMTS
- Edwin Salvador – SDMTS
- Rich Agard – SEPTA
- Gibson – SEPTA/TWU 234
- Rory O'Neill – SFMTA/IBEW 6
- Sal Syquia – SFMTA
- Nicholas Capraola – WMATA
- Roland Lamar – WMATA/ATU 689
- Kimberly Mountjoy – WMATA
- Greg Bushner – VTA
- Kristopher Hitchcock – VTA/ATU 265



“There’s a lot of pressure nowadays put on people to follow the college path and that really doesn’t work for everybody. I think there’re a lot of people that do that and they get their degree and they’re still not doing anything with it. If you enjoy working with your hands; if you’re a problem-solver type person this is a great thing to do – you’re not stuck in an office all day long sitting around. For me it’s just a much better fit.”

Kristopher Hitchcock – VTA – Electro-Mechanic

Discussing the benefits of a technical education and career path

The **Transportation Learning Center** is a nonprofit organization dedicated to improving public transportation at the national level and within communities. To accomplish this mission, the Center builds labor-management training partnerships that improve organizational performance, expand workforce knowledge, skills and abilities, and promote career advancement.

Contact us:

Email: info@transportcenter.org
www.transportcenter.org
www.transittraining.net
 Phone: 301.565.4713
 Fax: 301.565.4712

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Engagement: Transit and Rail Training Partnerships Location Map

National Sponsors and over 40 locations that have worked together to build shared solutions



- IBEW Local 6 (San Francisco)
- IBEW Local 9 (Chicago)
- IBEW Local 103 (Boston)
- IBEW Local 465 (San Diego)
- IBEW Local 1245 (Sacramento)



- SEIU Local 1021 (Sacramento)



TRANSPORTATION LEARNING CENTER

- TWU Local 100 (NYC)
- TWU Local 208 (Columbus)
- TWU Local 234 (Philadelphia)



Port Authority



Community
Transportation
ASSOCIATION



- Everett
- Seattle
- Tacoma



- Portland



- Sacramento
- San Francisco
- Oakland
- San Jose
- San Mateo



- Los Angeles
- San Diego

