

# PACIFIC NORTHWEST RAIL NEWS

VOL. 8, ISSUE 10

OCTOBER 2016

## Trains, Planes And Automobiles — And No One Driving Them

BY BILL VIRGIN

Editor/Publisher

Federal regulators, the railroad industry and labor unions are engaged in a debate over whether to set minimum crew requirements for trains, and whether that minimum should be one or two.

But here's a number that increasingly figures in discussions of crew sizes for trains, trucks, cars, airplanes and boats: Zero.

With all the interest in a driverless/pilotless future focused on aviation (in the form of unmanned aerial vehicles or, as we know them, drones) and private passenger cars, there's a question of whether rail transport is being left at the station in terms of the technology.

In one sense, it's farther along than other modes of transportation. That would be rail transit systems, many of which operate without a driver/engineer on board.

An example of such a system would be the subway that runs between terminals at Seattle-Tacoma International Air-

port. The Port of Seattle has three train sets, which can be operated by on-board engineers if necessary, says spokesman Perry Cooper.

A much larger and more visible automated system is TransLink's SkyTrain in Vancouver, B.C.,. When a planned extension is complete, SkyTrain will be, TransLink says, the "longest driverless and automated rapid transit system in the world."

SkyTrain uses an on-board control system to handle propulsion, braking, direction and door operation on the trains, and to monitor speed and critical faults.

Watching over the system is the Vehicle Control Centre, a computer group based at B.C. Rapid Transit Co., operator of two of the three SkyTrain Lines. Those computers are in charge of track switches and distances between trains. A third level of computer operations tracks system-wide schedule regulation of trains.

Schedules can be disrupted by something as minor as a

*(Continued on page 2)*

## Rail Heritage Center Marks Anniversary For American Freedom Train And 4449

The Oregon Rail Heritage Center is commemorating and celebrating the 40th anniversary of an event whose lasting contribution to railroading was getting one of the nation's best-known steam locomotives back out on the road.

The Portland-based center has opened a new exhibit on the American Freedom Train, which itself was a rolling exhibit of U.S. history that toured the nation in its bicentennial year.

The American Freedom Train operated with three steam locomotives, one of those being Southern Pacific locomotive 4449. That locomotive is familiar to many with its orange-and-yellow-highlighted side skirts. But in 1976 it was dressed up in red, white and blue (at right, locomotive in Miramar, Calif.. Source: Defense Imagery and Wikicommons).

The AFT was the inspiration of Ross Rowland, a Wall Street metals trader with a long passion for and involvement in rail preservation and restoration projects. Rowland organized the project and its financing, including finding and restoring the locomotives and rolling stock.

SP 4449, owned by the city of Portland, had been on display in Oaks Park in Portland since 1959, the subject of con-

siderable vandalism and theft over the years, according to a history compiled by the Friends of 4449, which maintains and operates the locomotive. It was pulled from the park in December 1974 for restoration work in a Burlington Northern shop, and made its re-debut in April 1975. The man overseeing 4449's restoration was Doyle McCormack, who has been instrumental in establishment of the rail heritage center

*(Continued on page 2)*



## Driverless Trains Are Common In Transit Systems, But Freight Adoption Lags

*(Continued from page 1)*

late-arriving or departing passenger holding open a door. If that happens, “A sensor alarm is triggered, with video footage that can be monitored by our OMC if necessary,” says Cheryl Ziola, TransLink media relations manager. “We have cameras monitoring stations, platforms and on-board several of our newest trains. If needed, a SkyTrain attendant will be dispatched to assess the situation in person if the door fault doesn’t resolve momentarily.”

The advantage the Sea-Tac and SkyTrain systems have is that they’re closed systems, unlike the light-rail systems operating in Seattle and Portland. “We have no grade crossings as the tracks and platforms have no intersection with vehicle traffic and roadways,” Ziola says. “Most of the track is elevated over roadways, and in some areas, below ground.”

Those sorts of intersections pose huge challenges for long-distance passenger service, and for freight.

Remote-control locomotives are by now standard in switching yards, but again that’s a closed area. As a headline

on a recent Bloomberg News piece suggests, “Driverless fever is everywhere - except in the freight train industry.”

But there have been efforts to apply the technology to rail freight, with at least one of them predating the current fever for driverless vehicles by decades.

The Muskingum Electric Railroad operated a driverless train over the 30 miles between a coal mine and a power plant in Ohio from the late 1960s until 2002, according to the website Iron Compass. “Sensors placed in the track controlled the train’s movements and horns at crossings and slowed it down at the coal loading and unloading points. The railroad had specially built hopper cars to put on the back of the train with headlights and horns built into them so that the trains could legally run backwards without needing an engine on the front.

More recently mining company Rio Tinto has been working to deploy a driverless train in Western Australia. The company already uses autonomous trucks at its mines.

*(Continued on page 3)*

## American Freedom Train Meant Return To Operation For Steam Locomotive

*(Continued from page 1)*

and preservation of Portland’s steam locomotives.

Since then it’s been used on multiple excursions in the West and on the annual Holiday Express trains. When not on the road, it’s on display indoors at the rail heritage center, along with two other city-owned locomotives.

Of the three locomotives used on the excursion, 4449 compiled the most miles, hitting every region except New England. Because of delays in restoration work, the freedom train actually started without 4449, using a former Reading locomotive.

SP4449 joined the train in Chicago in August 1975, according to freedomtrain.org; 4449 also got a break in mid-1976 for servicing. A third steam locomotive was used for a segment in Texas.

During a 1975 stop in Seattle, 4449 was joined by another Northwest steam-locomotive legend, the Royal Hudson, which brought an excursion from Vancouver, B.C. The two locomotives were on display together near the Kingdome.

The train itself consisted of more than 20 cars, with 10 of them being display cars for such artifacts of American history as a moon rock, Judy Garland’s dress from “The Wizard of Oz,” Abe Lincoln’s stovepipe hat, the original Louisiana Purchase and a journal from the Lewis & Clark expedition.

In addition to the exhibit, the rail heritage center has been marking AFT’s anniversary in other ways. It hosted a reunion of AFT staffers; 150 attended the event, including Rowland, McCormack, Wes Camp (who originally nominated 4449 as a candidate for the Freedom Train) and engineer Al Phillips. SP4449 pulled an excursion for the reunion.

That event also marked the debut of another restoration project, former Portland Traction Co. No. 100. Its participation was fitting. It was No. 100 that placed 4449 on display in Oaks Park in 1958, and pulled it out from its display in 1974 to undergo restoration.

The rail heritage center’s display is open 1-5 p.m. Thursdays through Sundays. The center is free but donations are accepted.

**PACIFIC NORTHWEST RAIL NEWS** is published 12 times a year by Northwest Newsletter Group. Contents are copyright 2016 and all rights are reserved. Bill Virgin, Editor and Publisher. Editing assistance: Jenny Cole. Send news items, letters, subscription requests and other queries to the editor, at 15642 129th Court SE, Renton, WA, 98058 or bill.virgin@yahoo.com. Phone: 425-227-4471. Subscriptions are \$35 a year for e-mail delivery, \$45 a year by mail; Washington residents, please add appropriate sales tax (available at Department of Revenue Web site, www.dor.wa.gov). For advertising rates, contact the publisher.

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

## TIMETABLE

|            |                   |  |
|------------|-------------------|--|
| Oct. 9     | Spokane           | River City Modelers Fall Train Show, 9:30 a.m.-3:30 p.m., Spokane Fair & Expo Center. Admission \$6, 12 & under free. Information: rivercitymodelers.org.  |
| Oct. 15-16 | Chilliwack, BC    | Mount Cheam Lions Club Model Railroad and Hobby Show, 9 a.m.-5 p.m., Heritage Park. Admission: Adults \$7, children \$5. Information: mountcheamlions.com.   |
| Oct. 15-16 | Ravensdale, WA    | Maple Valley Operating Model Train Show, 10 a.m.-5 p.m. Gracie Hansen Community Center. Admission by donation (suggested: Adults \$5, Children (3-11) \$2. Information: greatermaplevalleyareacouncil.org.   |
| Nov. 4-5   | Post Falls, ID    | Inland Northwest Mo-N fall show, 3-5 p.m. Friday, 10 a.m.-4 p.m. Saturday, Post Falls Library. Admission: Free. Information: nlandnorthwestfree-mo-n.weebly.com .  |
| Nov. 5-6   | Vancouver, B.C.   | Vancouver Train Expo, 10 a.m.-6 p.m. Saturday, 10 a.m.-5 p.m. Sunday, Forum Building at Pacific National Exhibition. Admission: senior (60 and older) \$8, adult (16-59) \$10, youth (6-15) \$5, children under 6 free with adult. Information: vancouvertrainexpo.ca. |
| Nov. 12    | Kent, WA          | Boeing Employees Model Railroad Club swap meet, 9:30 a.m.-4 p.m., Kent Commons. Information: bemrrc.com.   |
| Nov. 12-13 | Puyallup, WA      | Great Train Show, 10 a.m.-4 p.m. both days, Western Washington Fairgrounds. Information: greattrainshow.com.   |
| Nov. 26-27 | Central Point, OR | Rogue Valley Railroad Show, 10 a.m.-5 p.m. Saturday, 10 a.m.-5 p.m. Sunday, Jackson County Expo; Admission: adults \$5, children 6-12 \$1, under 6 free with adult. Information: rvmrc.net.  |

## Experiments Continue With Autonomous Freight Trains

*(Continued from page 2)*

“Due to software glitches, the AutoHaul project has been delayed for at least a further three years beyond its original goal of 2015,” says the publication Mining Technology.

Rio Tinto is sticking with the project because it believes there are huge benefits to be gained. “When the trains are set up, most workers will be based at the new operations centre in Perth, Australia,” Mining Technology reports. “Trains will be monitored and controlled via satellite links, meaning that less manpower will be necessary on site.

“The company also said that the driverless trains will make the entire process more productive because driver changeover times are eliminated. At the moment, workers have to travel more than 43,000 miles each week to get train drivers to where they start or end shifts, with a train trip from a mine to a port typically lasting 40 hours. Autonomous trains would completely eliminate this. Trains would also not have to stop to switch drivers twice a day, as they currently have to do to relieve workers.”

The challenges aside, the industry is likely to continue

experimenting with driverless technology. Texas A&M University’s Transportation Institute recently unveiled its proposal for a freight shuttle system, “which operates on its own guideway using single, remotely controlled transporters carrying truck trailers or shipping containers, powered by linear induction electric motors.”

Such a system would be ideal, the university says, for “high-volume traffic between two points located less than 600 miles apart. This situation occurs frequently at marine ports, border crossings (land ports) and congested freight corridors.” The system would use steel wheels and rails, but guideways would be built in the medians of existing highways.

The Port of Houston is studying the system as a way to deal with increased cargo volumes resulting from expansion of the Panama Canal.



## ON THE WIRE: THE LATEST RAIL NEWS FROM AROUND THE PACIFIC NORTHWEST



**SEATTLE:** Sound Transit has placed a \$554 million order for 122 new light rail vehicles to be built by Siemens Industry Inc. in Sacramento. The new trains will have more capacity for passengers as well as additional room for luggage and bicycles. They're scheduled for delivery beginning in 2019 for testing ahead of the light rail extension from the University of Washington to Northgate opening in 2021. Sound Transit's fleet currently has 62 vehicles. Sound Transit also opened its new Angle Lake station, extending the existing line 1.6 miles south from Sea-Tac Airport.

**SEATTLE:** Amtrak has extended its bike program to two long-distance trains — the Empire Builder and the Coast Starlight — operating in the Pacific Northwest. Passengers can check in standard full-size bicycles trainside by handing them to an Amtrak crew member; bikes are stored on a rack in the baggage car. The service is available at staffed stations that offer checked baggage. A bike service fee is charged, but the specific amount depends on the route. Amtrak will continue its boxed bike service.

**SNOQUALMIE, Wash.:** Northwest Railway Museum has officially opened its Railway Education Center, which houses classrooms, a document archive and office space as well as restrooms and a bookstore for visitors to the tourist line.

**TRI-CITIES, Wash.:** The federal Surface Transportation Board has told the cities of Kennewick and Richland they can't condemn and acquire railroad right of way from Tri-City Railway for a grade crossing. The railroad argued the crossing "would unreasonably interfere with its current and future railroad operations."

**OLYMPIA:** Genesee & Wyoming has established the Olympia & Belmore Railroad (reporting mark OYLO) to take over operations on a 13-mile segment of track owned by BNSF.

The section had been operated by Tacoma Rail, which filed to end service due to insufficient revenue and the cost of repairing vandalism damage. Commodities handled on the line include building and construction materials, food and related products, metals and plastics. G&W also owns the Puget Sound & Pacific, connecting Chehalis, Hoquiam and Bangor.

**CARCROSS, Yukon Territory:** The White Pass & Yukon and one of its steam locomotives figured in the recent Canadian tour of the Duke and Duchess of Cambridge (Prince William and Kate Middleton). The royals made an impromptu inspection of the locomotive's cab, which required navigating a narrow bridge walkway, after learning Queen Elizabeth and Prince Philip had travelled on the White Pass line during a 1959 visit, the Daily Mail reported.

**ANCHORAGE:** Wasilla artist Taffina Katkus' painting "Moonlight Debut" has been selected for Alaska Railroad's 2017 poster/print. The railroad will officially introduce the poster/print at events in Wasilla (10 a.m.-2 p.m. Nov. 5, Curtis Menard Memorial Sports Center), Anchorage (10 a.m.-2 p.m. Nov. 12, Anchorage Historic Depot) and Fairbanks (4-7:30 p.m. Dec. 2, Fairbanks Depot). The oil painting depicts a locomotive moving through the new multi-track signal at the juncture of the mainline track and the Port MacKenzie Rail Extension track currently under construction. Katkus is a 45-year resident of Alaska and former owner of a commercial sign shop for 30 years; she currently works full time as a professional artist. Katkus also produced images for the 2009 and the 2012 Alaska Railroad prints/posters. The railroad launched the program in 1979 and has continued every year but one since then. It sells posters, prints and lapel pins at its depots and through an online store.

