Passenger Rail Service Performance

Jeremy Latimer
Director of Rail Services
VPRA Board Meeting Update

1. VRE Performance
2. Amtrak Performance
3. Construction and Maintenance Schedule Coordination
VRE performance improved considerably from March but is still below 90% on-time percentage

VRE Last Station OTP v. Delay Minutes

Year-over-year from April 2022, there's been a...

- Decrease in all-station OTP: -7.1pt
- Change in number of trains: -5%
- Increase in delays: +12%
- Increase in avg delay min per train: +18%

...for VRE trains

VRE On Time Threshold:
trains arrive at last scheduled stop within six minutes of schedule
Train interference and slow orders are the biggest causes of delay to VRE

Top 4 VRE delay causes between November 2022 and April 2023

- **Amtrak Interference**: VRE trains delayed by an Amtrak train
  - November: 1,143
  - December: 874
  - January: 911
  - February: 614
  - March: 682
  - April: 618

- **Slow Orders**: Speed restrictions due to track conditions
  - November: 125
  - December: 73
  - January: 221
  - February: 805
  - March: 567
  - April: 504

- **CSX Interference**: VRE trains delayed by a CSX freight train
  - November: 231
  - December: 259
  - January: 383
  - February: 205
  - March: 529
  - April: 272

- **VRE Interference**: VRE trains delayed by another VRE train
  - November: 273
  - December: 333
  - January: 272
  - February: 153
  - March: 176
  - April: 187
VPRA Board Meeting Update

1. VRE Performance
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Customer on-time performance has been below 80% for most services since the beginning of the year.

January to April 2023 Customer On-Time Performance (Excludes Arrivals into Washington)
Northeast Regional OTP was at its lowest level since the peak of heat orders last summer

**NE Regional All-Station OTP v. Delay Minutes (RF&P Corridor Only)**

Year-over-year from April 2022, there’s been a…

- **Decrease in all-station OTP**: -6.3pt
- **Increase in number of trains**: +34%
- **Increase in delays**: +102%
- **Increase in avg delay min per train**: +51%

…for NE Regional trains on the RF&P Corridor in Virginia

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(1) OTP excludes OTP on NS Roanoke corridor
(2) Delay minutes exclude NOD and all delays on NS

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**Amtrak On Time Threshold:**

trains arrive at each station stop within fifteen minutes of schedule
Long-distance performance improved slightly from March but is still lower than a year ago

Long Distance All-Station OTP v. Delay Minutes (RF&P Corridor Only)$^{1,2,3}$

Year-over-year from April 2022, there’s been a…

-3.3pt Increase in all-station OTP
+33% Increase in number of trains
+91% Increase in delays
+43% Increase in avg delay min per train

…for long-distance trains on the RF&P Corridor in Virginia

Amtrak On Time Threshold:
trains arrive at each station stop within fifteen minutes of schedule

(1) OTP excludes OTP on NS Roanoke corridor
(2) Delay minutes exclude NOD and all delays on NS
(3) Long distance trains include Carolinian, Palmetto, Silver Meteor, Silver Star
Slow orders, many of which are from pre-planned construction and maintenance work, are the biggest cause of Amtrak delays in Virginia.

Top 4 Amtrak delay causes between November 2022 and April 2023:

**Slow Orders (DSR)**
- Speed restrictions due to track conditions (non-weather related)
  - November: 1,568
  - December: 1,873
  - January: 1,708
  - February: 3,136
  - March: 3,894
  - April: 2,085

**Amtrak Interference (PTI)**
- Amtrak trains delayed by other Amtrak trains
  - November: 2,030
  - December: 2,256
  - January: 1,800
  - February: 2,413
  - March: 2,305
  - April: 2,050

**Freight Interference (FTI)**
- Amtrak trains delayed by a freight train
  - November: 1,920
  - December: 2,530
  - January: 2,317
  - February: 2,131
  - March: 2,384
  - April: 1,562

**Routing/Dispatching (RTE)**
- Delay due to routing through crossovers, late track bulletins, etc.
  - November: 1,597
  - December: 1,405
  - January: 1,565
  - February: 1,701
  - March: 1,705
  - April: 1,460

Slow order delays spiked in February and March.

Additionally, in April there were:
- 8 days with heat-related speed restrictions on CSX in Virginia causing...
- 33 hours of heat-related delays on Amtrak.

(1) Delay minutes exclude all delays on NS.
Train 99’s OTP off the NEC has improved; however, in April it struggled to leave Washington on-time due to crew and engine-related delays.

<table>
<thead>
<tr>
<th>Station Name</th>
<th>Dec 2022</th>
<th>Jan 2023</th>
<th>Feb 2023</th>
<th>Mar 2023</th>
<th>Apr 2023</th>
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<tbody>
<tr>
<td>Washington Union Station</td>
<td>50%</td>
<td>100%</td>
<td>78%</td>
<td>63%</td>
<td>80%</td>
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<tr>
<td>Alexandria</td>
<td>22%</td>
<td>91%</td>
<td>89%</td>
<td>86%</td>
<td>40%</td>
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<tr>
<td>Quantico</td>
<td>22%</td>
<td>82%</td>
<td>67%</td>
<td>75%</td>
<td>30%</td>
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<tr>
<td>Fredericksburg</td>
<td>22%</td>
<td>82%</td>
<td>56%</td>
<td>57%</td>
<td>30%</td>
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<tr>
<td>Ashland</td>
<td>22%</td>
<td>82%</td>
<td>56%</td>
<td>38%</td>
<td>20%</td>
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<tr>
<td>Richmond Staples Mill Road</td>
<td>22%</td>
<td>82%</td>
<td>56%</td>
<td>63%</td>
<td>30%</td>
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<tr>
<td>Richmond Main Street</td>
<td>11%</td>
<td>82%</td>
<td>67%</td>
<td>63%</td>
<td>30%</td>
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<tr>
<td>Williamsburg</td>
<td>11%</td>
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<td>50%</td>
<td>10%</td>
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<tr>
<td>Newport News</td>
<td>33%</td>
<td>73%</td>
<td>67%</td>
<td>38%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Upcoming construction for TRV will add to the current challenges facing passenger rail service in Virginia.

Ongoing challenges:
- Heat orders
- Slow orders from maintenance & non-TRV construction
- Crew and engine swap issues

Upcoming large-scale construction for TRV:
- Track and platform closures
- Speed restrictions

Poor service quality unless proactive action is taken.
VPRA Board Meeting Update

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Significant construction work of varying impact will occur across the corridor for TRV in the coming years.

It is in all parties' interests to coordinate work and service delivery to maintain the integrity of rail service.
VPRA will maintain and update a work-tracking spreadsheet that will visually indicate anticipated impacts to the corridor.

Draft work tracking spreadsheet

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**Annual Program Monitoring Plan - Construction Tracker**

<table>
<thead>
<tr>
<th>Project</th>
<th>Estimated Impact</th>
<th>Status</th>
<th>Start Date</th>
<th>End Date</th>
<th>Start Mile</th>
<th>End Mile</th>
<th>Affected Mileage</th>
<th>Amtrak Segment</th>
<th>VRE Segment</th>
<th>Summary</th>
<th>Active Mitigations</th>
<th>Project Priority</th>
<th>Responsible Party</th>
<th>Contact Info</th>
<th>Contact Notes</th>
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<tbody>
<tr>
<td>Tie Replacement</td>
<td>Moderate</td>
<td>Active</td>
<td>4/15/2023*</td>
<td>Unknown</td>
<td>23.2</td>
<td>37.6</td>
<td>FBO-AED</td>
<td>K1A</td>
<td>FBO-AED</td>
<td>Train Tie Replacement</td>
<td>None</td>
<td>0*</td>
<td>CSX</td>
<td>Brian Barton</td>
<td><a href="mailto:Brian_Barton@csx.com">Brian_Barton@csx.com</a></td>
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<td>35.9</td>
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<td>0*</td>
<td>CSX</td>
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<td><a href="mailto:Brian_Barton@csx.com">Brian_Barton@csx.com</a></td>
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<td>Active</td>
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<td>30.0</td>
<td>FBO-AED</td>
<td>K1A</td>
<td>FBO-AED</td>
<td>Hand and board open/track</td>
<td>None</td>
<td>0*</td>
<td>CSX</td>
<td>Brian Barton</td>
<td><a href="mailto:Brian_Barton@csx.com">Brian_Barton@csx.com</a></td>
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<tr>
<td>Grade Crossing(s)</td>
<td>Minor</td>
<td>Active</td>
<td>4/12/2023*</td>
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<td>0*</td>
<td>CSX</td>
<td>Brian Barton</td>
<td><a href="mailto:Brian_Barton@csx.com">Brian_Barton@csx.com</a></td>
</tr>
<tr>
<td>Grade Crossing(s)</td>
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<tr>
<td>Grade Crossing(s)</td>
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<td>None</td>
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<td>CSX</td>
<td>Brian Barton</td>
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<td>Grade Crossing(s)</td>
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<td>Active</td>
<td>4/15/2023*</td>
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<td>70.9</td>
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<td>81.3</td>
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<tr>
<td>Tie Replacement</td>
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<td><a href="mailto:Brian_Barton@csx.com">Brian_Barton@csx.com</a></td>
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<td>Active</td>
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<td>CSX</td>
<td>Brian Barton</td>
<td><a href="mailto:Brian_Barton@csx.com">Brian_Barton@csx.com</a></td>
</tr>
</tbody>
</table>

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**R&P - Current Projects**

- Fredericksburg
- Brooke
- Woodbridge
- Quantico
- Rippon
- Lorton
- Alexandria
- Crystal City

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**Last updated:** 5/3/2023 15:08 EDT
We want to take a proactive approach to mitigating impacts from upcoming maintenance and construction activities.

Data Collection and Analysis

How long will the work last?
Overnight, weeks, months, years?

What is the expected impact to service?
None, minor delays, major delays, temporary reduction in capacity, total blockage?

What other projects are ongoing?
Do the cumulative impacts of multiple projects create a larger impact?

Impact Finding

- Short-term / low impact
- Multiple projects with minor impacts
- Long-term / high impact

Potential Course of Action

- Passenger service notice
- Rescheduling of work activities
- Schedule change
- Cancellation

Last resort
Quantico Station Project – An example of advance notification

Subject: VRE Quantico Improvements Project: 60-day Notice for Potomac Ave related Drainage Work

To all parties concerned,

The VRE Quantico Station Improvements Project would like to formally notify all parties involved that the Project will be performing work at the grade crossing of Potomac Avenue the second weekend of July 2023, between Friday July 7th at 9:00 pm and Monday July 10th at 5:00 am. The work involves closure of all Potomac Avenue lanes and it is our understanding that the Base (MCQB) will coordinate with the Town of Quantico to open the gate on Broadway Street for detour and vehicle access. Please note that this will be the first of 4 weekends that work is planned to be performed in this location. Additional notifications will be sent in advance once these dates are defined. Please do not hesitate to contact me if you have any questions or concerns regarding this matter.

Key Points

1. Significant advanced notice provided
2. Formal notification sent to all parties
3. Specific location, dates, and times of work
4. Estimated impact
5. Proactive mitigation measures
6. Expectation setting for future planned work
7. Single point of contact with knowledge about the work plan
We’re building a process to coordinate work and proactively respond to issues

Internal Coordination
(Talking to the right people)

- CSX
  - Network-Wide Work Planning
  - Regional Work Planning
  - Local MOW

- Amtrak
  - NEC Engineering
  - Engineering
  - Planning & Ops

- VRE
  - Engineering
  - Planning & Ops

Corridor Coordination

Service Performance Committee
Representatives informed about all upcoming planned work

Decision-Making

Managers Committee
Representatives empowered to decide on and implement mitigation measures

Impact analysis and recommended mitigation measures (TRV vs. non-TRV work)