



VIRGINIA'S PASSENGER TRAINS BUILDING ON SUCCESS

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VIRGINIA'S PASSENGER TRAINS BUILDING ON SUCCESS

A RAIL RENAISSANCE

Virginia is witnessing the beginning of a rail renaissance. The Commonwealth has emerged as a national leader in finding innovative ways to enhance intercity passenger rail, and targeted state investments have significantly expanded and improved service over the last decade. Passenger rail use has surged, and record ridership shows that Virginians want more train service. And our regional trains have posted the strongest financial performance in the entire Amtrak network. Now Virginia must make smart investments, adopt needed policies, and secure additional resources to further enhance passenger rail, while balancing the freight needs of our railroad partners.

Passenger rail is essential to reducing congestion, giving people greater transportation choices, increasing energy efficiency, curbing pollution, and improving Virginia's economic competitiveness. We must take the steps needed to build upon recent success and advance fast, frequent, and reliable rail service throughout the Commonwealth.

VIRGINIA'S CURRENT NETWORK: A FOUNDATION FOR THE FUTURE

Virginia is currently served by six round-trip, intercity regional trains. The Commonwealth launched its first expansion of Amtrak intercity service in 2009 with the start of the Piedmont Regional serving Alexandria, Burke Centre, Manassas, Culpepper, Charlottesville, and Lynchburg.

This service was expanded in 2017, returning passenger rail to Roanoke for the first time in almost 40 years. In 2010, an additional train was added between Richmond and Washington, also serving Alexandria, Woodbridge, Quantico, Fredericksburg, Ashland, and Henrico's Staples Mill Station. This service was later extended as well, and now serves Petersburg and Norfolk. In addition to these two regional trains, Virginia has two Urban Crescent Regionals that connect Washington to

Henrico's Staples Mill Station and two that extend further to serve Richmond's Main Street Station, Williamsburg, and Newport News, with bus connectivity to Norfolk and Virginia Beach.

In addition, the Commonwealth is served by seven of Amtrak's longer distance, national trains that give Virginians service to destinations as far away as Chicago, Miami, and New Orleans. These trains also serve communities not served by our regional trains, including Staunton, Clifton Forge, Danville, and Lorton.¹ Further, Virginia's proximity to the Northeast

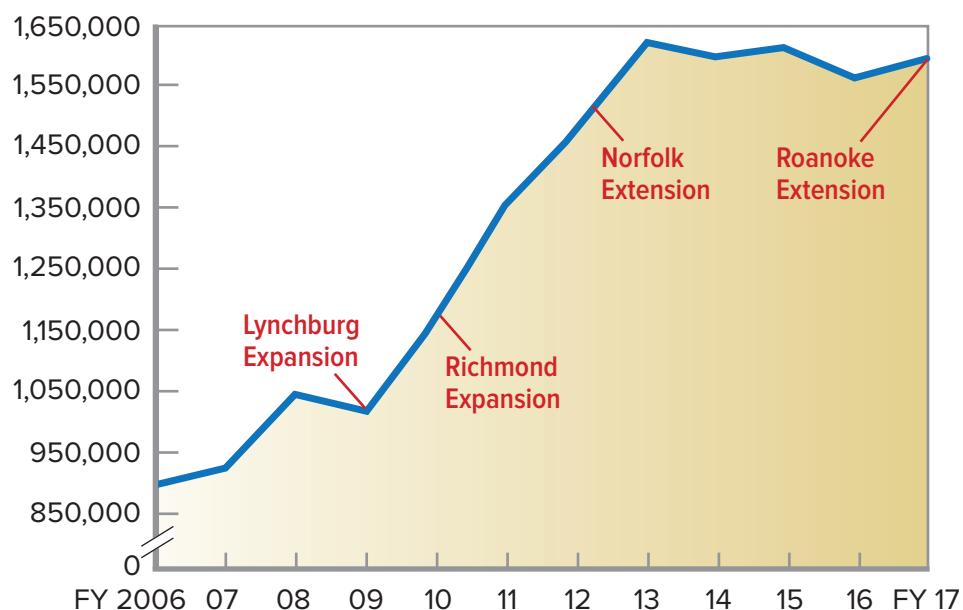
Corridor (NEC) allows passengers to take advantage of Amtrak's extensive network of trains serving the Northeast.

Virginia is thus served by a total of 13 regional and national trains² that connect 21 stations, with Amtrak buses connecting two additional stations to its passenger rail network.

The expansion and improvement of passenger rail service in Virginia has been a bipartisan effort, with support from both parties in the General Assembly, as well as Governors Gilmore, Warner, Kaine, McDonnell, and McAuliffe.

The cornerstone for Virginia's rail renaissance is the Intercity Passenger Rail Operating and Capital (IPROC) Fund.

AMTRAK RIDERSHIP IN VIRGINIA



The General Assembly created IPROC in 2011 and provided it with short-term funding in 2012. The transportation funding package adopted in 2013 (HB 2313) then provided long-term, sustainable funding. This move made Virginia the first state in the nation with a dedicated revenue source for improving intercity passenger rail.

Since FY 2013, the Commonwealth has invested \$467 million to sustain and improve its passenger rail network, including the recent return of passenger rail to Roanoke. It will invest another \$777 million through the current FY 2018-2023 six year improvement plan to maintain existing regional trains, add more trains to Norfolk/South Hampton Roads, study rail service to Bedford and the New River Valley, and add capacity to Newport News.³ Virginia also has programmed funds to improve the Washington to Richmond corridor, secure a route between Petersburg and the North Carolina border that is currently not in use but could offer much faster service,⁴ and run a second Piedmont Regional train.

RECORD RAIL RIDERSHIP

Before Virginia started investing in its passenger rail network, all of Amtrak's Virginia trains only connected 49.3 percent of our citizens and 53.8 percent of our jobs. Today, our regional trains alone reach 77.2 percent of Virginians and 81.6 percent of the Commonwealth's jobs, while our entire Amtrak network connects 80.5 percent of Virginians and 84.4 percent of our jobs. In addition, Virginia's Amtrak trains connect 48 institutions of higher education, which enroll 87.6 percent of our college students, and nearly 10 percent of our nation's armed forces.

Demand has surged in response to the expansion and improvement of service. Ridership on Amtrak regional trains grew by 75 percent between 2006 and 2017, with 675,000 more rail trips this year than a decade ago. In FY17, 1,582,357 trips were taken on all Amtrak trains in Virginia, with 851,443 of these trips on regional trains.⁵ In fact, over one-third of Amtrak's entire ridership gains nationwide from 2011 to 2015 were due to increased ridership in Virginia.⁶

STRONG FINANCIAL PERFORMANCE

Virginia's regional trains have built a strong fiscal track record as well, operating four of the top six best financially performing regional corridors (corridors of 750 mile or less) in Amtrak's entire network. The Commonwealth also is served by North Carolina's interstate regional train, the Carolinian, which is the fifth best performing regional train in the country. Overall, our entire regional train network operated in the black, making a profit of 4.6 cents per seat mile in FY 2017. That's four times better than the average regional corridor in Amtrak's network.

MULTIPLE BENEFITS

Passenger rail offers a number of important economic, community, health, environmental, and quality of life benefits that further account for strong ridership and highlight the need to further improve and expand service.

Our prosperity is tied to our ability to efficiently move people and products. Increased congestion on our roadways and fewer, more crowded flights hamper Virginia's ability to attract and retain companies, jobs, and employees. It came as no surprise to anyone who has driven on I-95 between Washington and Richmond that a recent study named a 6.5 mile stretch of the interstate near Fredericksburg the country's worst congestion hotspot.⁷ Highway vehicle miles traveled (VMT) in Virginia grew 11.6 percent from 2010 to 2015, outpacing the national average, and traffic increased even more rapidly in the Urban Crescent. Meanwhile, the number of flights serving our airports declined 19.6 percent between 2010 and 2016 while the number of passengers per flight increased 33.3 percent, compared to national averages of -2.8 percent and 19.3 percent respectively.⁸ High performance intercity passenger rail gives people needed alternatives to driving—alternatives that are also less stressful and provide opportunities to work or relax. Improved frequency and reliability of rail service can reduce congestion, and is particularly valuable in corridors where additional highway projects would be prohibitively expensive and/or harm communities and our environment.

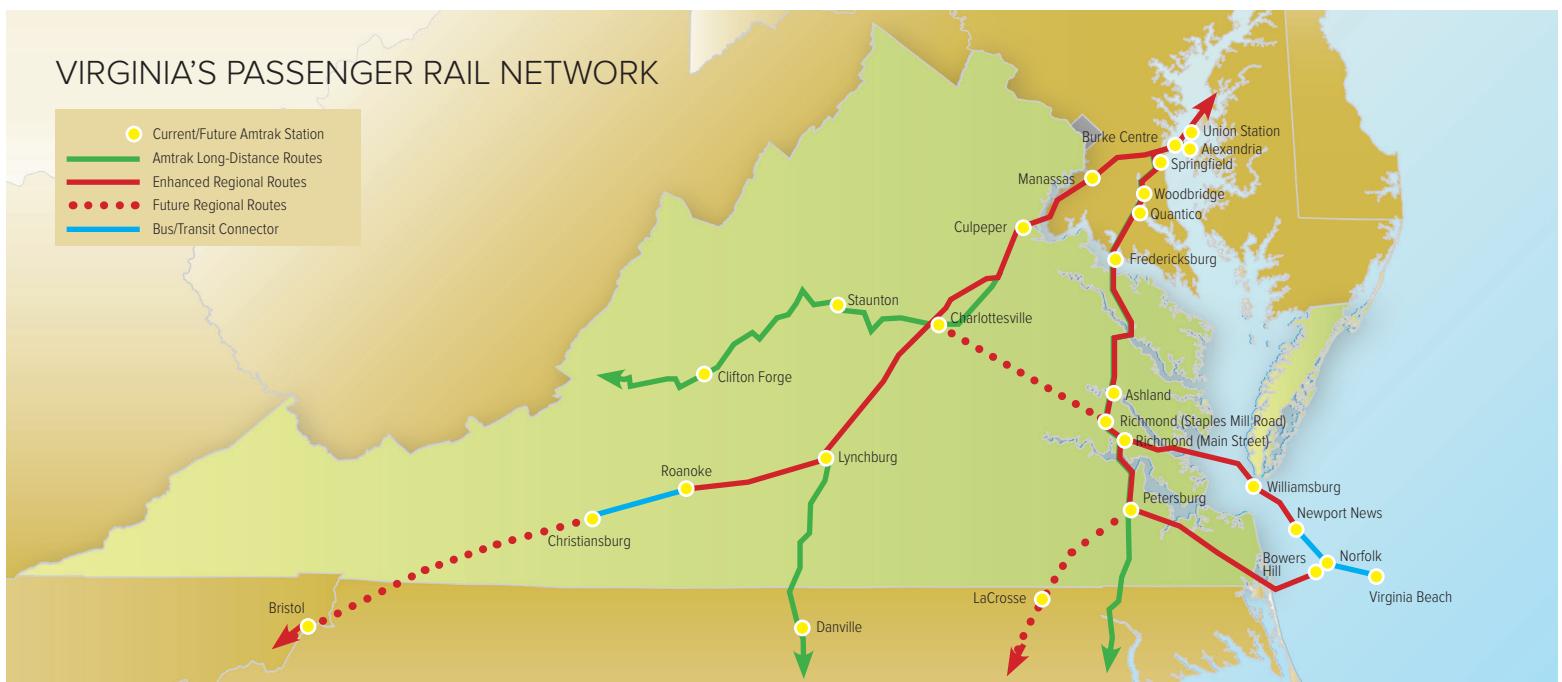
In addition, Virginia's Amtrak service generated an estimated \$198.3 million in tourism spending last year. And Amtrak spent \$197.5 million on goods, services, and wages⁹ in Virginia to operate and maintain passenger rail service. Overall, our passenger trains are estimated to generate about \$1.1 billion in economic development and create or sustain over 11,000 jobs annually.¹⁰ And a conservative estimate suggests that passenger rail creates \$189.7 million in secondary benefits annually by reducing auto emissions, improving safety, decreasing congestion, and lowering roadway maintenance.¹¹

Passenger trains also can help maximize energy efficiency and reduce air pollution since they use 32 percent less energy per passenger mile than automobiles and 20 percent less than flying.¹² Amtrak trains removed an estimated 255 million potential passenger-miles from our roadways last year, eliminating the burning of 11.8 million gallons of fuel and preventing the release of 231.8 million pounds of carbon pollution.¹³

UPCOMING CHALLENGES

A significant challenge hampering efforts to capture more of the benefits of passenger rail is the lack of a long-term federal vision for improving passenger rail and funding Amtrak. Funding for passenger rail accounts for just \$0.02 of every federal transportation dollar spent annually, yet it has repeatedly been threatened. President Trump cut all funding for Amtrak's national trains in

VIRGINIA'S PASSENGER RAIL NETWORK



his FY 2018 budget, which would eliminate nearly 47 percent of Virginia's passenger rail service.¹⁴ Congress has not acted on this proposal yet, but it did reject President Trump's recommended rail funding cuts for last fiscal year. We need a strong federal partner to assist with building a true national passenger rail network that gives Americans meaningful transportation choices.

Another serious threat is the retrenchment of partners CSX and Norfolk Southern (NS). These freight rail corporations own the key corridors passenger trains run on in Virginia, and recent leadership changes and other factors have led CSX and NS to consolidate assets and reduce capacity. This has made it more difficult to negotiate expansion and improvement of passenger rail, since investment in infrastructure projects that add necessary capacity to specific rail corridors has been the typical incentive the Commonwealth has offered CSX and NS for new passenger rail service.

A further challenge is the massive population growth projected for Virginia—an additional 2.5 million residents by 2045.¹⁵ Over 94 percent of the new Virginians are expected to live in communities served by regional trains. But if current trends continue, this population boom will result in 1.9 million more vehicles on our roads, increase highway VMT by 35.9 percent, and result in burning 802 million more gallons of fuel, producing 7.8 million additional tons of carbon pollution each year.

A VISION FOR THE FUTURE

Our vision over the next decade is simple. We want to triple the amount of passenger rail service we have, reduce trip times by up to 35 percent, increase on-time reliability to over 90 percent, and expand passenger rail service to reach 85 percent of Virginians.

Opportunities to increase speeds, reliability, and service levels generally offer the greatest potential to improve intercity, regional rail. One day, Virginia may have true high speed passenger rail—generally considered to be 220 mph or higher. However, for the foreseeable future, we should focus on building upon recent investments to create an intercity passenger rail network that is more than competitive with driving in regards to trip times, availability, and reliability.

The engines pulling our regional trains have the ability to reach 110 miles-per-hour, yet the typical maximum speed is far less, primarily due to limitations on the capacity of rail lines. Increasing maximum speed to 90 or 110 mph—depending on the line—would decrease travel time from Norfolk to Washington by an average of 73 minutes, and from Newport News to Washington by an average of 53 minutes.¹⁶ If the Commonwealth already had such higher speed rail, Virginians taking the train in 2017 would have saved over 936,000 hours of time. Faster trip times would have a tremendous impact on ridership and the economy. This increase would require a continued and effective partnership between Virginia, Amtrak, CSX, and NS, and it is necessary to ensure that taxpayers get full value from any public-private partnership.

Another important opportunity to obtain faster service would be to switch our regional trains to dual-mode (electric and diesel) engines. Currently, engines in Virginia run on diesel, and there is a layover in Washington while the engine is replaced with an electric engine before a train continues north and vice versa for trains heading south. Switching to dual mode trains would reduce these layovers by up to 30 minutes for trains passing through Washington.

Opportunities to add more service are also critical. Only six of the 21 roundtrip Amtrak regional trains operating on the Northeast Corridor currently

serve Virginia. The 15 regional trains that now terminate in Washington could be extended into Virginia, enabling the Commonwealth to significantly increase passenger rail service without having to invest in costly train equipment.

Additional opportunities to expand service should be explored. For example, service was recently extended along the Piedmont corridor to Roanoke, and this service could be extended further into southwest Virginia—possibly reaching to Bristol. Virginia has future plans for an intra-state service along the “college corridor” between Roanoke/New River Valley/Bristol via Richmond to Hampton Roads. The state’s draft 2017 Statewide Rail Plan also envisions extending regional service to Danville and potentially on to Charlotte, NC.

The following chart summarizes what our vision for Virginia’s passenger rail network would deliver:

Corridor	Daily Roundtrips	Max Speed	Reliability	Travel Time
Washington-Richmond-Newport News (Regional)	6	90 mph	90%	3:22
Washington-Richmond-Norfolk (Regional)	9	90 mph	90%	3:16
Washington-Richmond-Raleigh-Charlotte (SEHSR)	5	110 mph	90%	7:18
Washington-Lynchburg-Roanoke/New River Valley (Regional)	4	89 mph	90%	5:30
Washington-Lynchburg-Danville (Regional)	2	89 mph	90%	5:05
New River Valley-Richmond-Hampton Roads (College Corridor)	4	89 mph	90%	5:50
Amtrak National Trains	<u>6</u> 36	79 mph	90%	n/a

MOVING FORWARD

Virginia is well-positioned to achieve this vision. The Intercity Passenger Rail Operating and Capital Fund can be used to cover the operation of current regional trains, as well as future service expansions; to invest in railroad infrastructure to enhance and improve passenger service; to match any federal money available to advance intercity and high speed rail; and to cover the debt service on government bonds to do any of the above.

The Commonwealth must take the next steps needed to advance fast, frequent, and reliable passenger rail service while ensuring that taxpayer funds are invested wisely. Key steps include the following:

Policy

- Protect the funding dedicated to IPROC and secure additional federal, state, and local resources.
- Articulate and adopt a strong, clear vision for passenger rail. To date, state rail plans have tended to focus on short-term projects and lack a comprehensive, long-term vision.
- Support adequate, sustained federal funding for Amtrak. Virginia’s regional trains cannot operate—and certainly cannot expand—without Amtrak, particularly Northeast Corridor service.
- Amend the federal Railroad Rehabilitation & Improvement Financing loan program to provide additional flexibility to states willing to fund improvements to passenger rail corridors.
- Study the potential of a Virginia Rail Authority to

help ensure continuity of policies and investments and provide a mechanism for ownership of assets funded by taxpayers.

- Develop and apply more rigorous metrics to assess the costs and benefits of alternatives to expand and enhance Virginia’s regional train network, and improve documentation of the benefits provided by investments made (including energy savings, economic benefits, and pollution reduction).
- Ensure that no investment is made in a major new or expanded highway project without first determining whether there is a viable rail alternative for achieving the same or a comparable result at less cost and with less environmental impact.
- Ensure that future passenger rail investments promote more compact development patterns.

Projects

- Work with Amtrak to extend more of the regional trains that currently stop in Washington into Virginia.
- Conduct the final phase of the Richmond to Hampton Roads high speed rail study.
- Fund continued construction of the Washington-Richmond-Raleigh portion of the Southeast High Speed Rail Corridor.
- Support completion of the Long Bridge replacement study, and fund expanded rail capacity over the Potomac River.

These policies and investments will allow Virginia to keep moving forward, building upon recent success to increase and enhance our regional train service.

ENDNOTES

¹<https://www.amtrak.com/routes.html>

²All but one of these are daily trains; Amtrak's Cardinal service only runs three times a week.

³<http://syip.virginiadot.org/Pages/allProjects.aspx>

⁴<http://www.atlanticgateway.net>

⁵In addition, on the commuter rail side, Virginia Railway Express served 4.75 million riders in FY 2017.

⁶<https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/nationalfactsheets/National-Fact-Sheet-FY2016-0717.pdf>

⁷https://www.washingtonpost.com/local/trafficandcommuting/heres-the-worst-traffic-hot-spot-in-the-us-according-to-a-new-study/2017/09/26/16a8e00e-a2d0-11e7-8cfe-d5b912fabc99_story.html?utm_term=.6bd9e2281758

⁸https://www.transtats.bts.gov/Data_Elements.aspx?Data=2

⁹Amtrak Virginia FY 2017 State Fact Sheet

¹⁰There is no comprehensive study on the economic benefits of passenger rail; however we compiled our estimate using available data of economic impact ranging from \$1.46 to \$4.00 for every dollar invested or spent. See ¹¹http://www.apta.com/resources/reportsandpublications/documents/HSR-Pub_final.pdf and <https://connect.ncdot.gov/resources/Rail-Division-Resources/Documents/2015%20SEHSR%20FEIS%20-%20Chapter%201.pdf>

¹¹<http://www.drpt.virginia.gov/media/2224/va-srp-draft-chapter-2-09-19-17.pdf>

¹²<https://truecostblog.com/2010/05/27/fuel-efficiency-modes-of-transportation-ranked-by-mpg/>

¹³<https://www.epa.gov/sites/production/files/2016-02/documents/420f14040a.pdf> and <https://www.epa.gov/sites/production/files/2016-02/documents/420f14040a.pdf>

¹⁴https://www.washingtonpost.com/local/trafficandcommuting/trump-budget-slashes-federal-aid-for-rail-long-distance-amtrak-routes/2017/05/23/55df2bc4-3fdf-11e7-adba-394ee67a7582_story.html?utm_term=.bb5744dbba7a

¹⁵<http://demographics.coopercenter.org/virginia-population-projections/>

¹⁶Virginia Department of Rail and Public Transportation, Richmond/Hampton Roads Passenger Rail Project: Tier I Final Environmental Impact Statement, August 2012: http://rich2hrrail.info/pages/mp_reports.html#Tier