March 6, 2025

To: Members of the Technical Advisory Committee

From: Jason Jewell, Managing Director

Subject: Fiscal Year 2024-25 Second Quarter Amtrak Pacific Surfliner On-Time Performance Analysis

Overview

On-time performance reflects the quality and dependability of the Pacific Surfliner service, and has a considerable effect on repeat ridership, based on customer travel experience. This report summarizes the on-time performance of the Amtrak Pacific Surfliner service during the second quarter of fiscal year 2024-25, covering the months of October, November, and December 2024.

Recommendation

Receive and file as an information item.

Background

The Amtrak Pacific Surfliner route operates in a complex environment, along the 351-mile Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor (Corridor), which traverses through a six-county coastal region in Southern California. As illustrated in Figure 1 on the next page, the rail right-of-way along the corridor is hosted by four different host railroads, including the Union Pacific Railroad (UPRR), the Burlington Northern Santa Fe Railway (BNSF), the Southern California Regional Rail Authority (SCRRA), and North County Transit District (NCTD).

In addition to the Amtrak Pacific Surfliner intercity passenger rail service, Amtrak long-distance trains, Metrolink commuter trains, and COASTER commuter trains also operate along the north-south corridor.

Figure 1: Pacific Surfliner Route

Before the COVID-19 pandemic necessitated service reductions in late March 2020, the LOSSAN Corridor held over 150 daily one-way trains, spanning 41 stations. Within this activity, the Pacific Surfliner service alone accounted for 27 trains and served 27 stations. Today, the Pacific Surfliner has expanded its reach to 29 stations, maintaining a schedule of 20 daily one-way trains, equating to ten round trips. Reflecting on the fiscal year 2018-19, the last complete fiscal year before the pandemic's impact, the Pacific Surfliner boasted nearly 2.8 million passenger trips, with an additional 5.4 million trips taken on the combined commuter rail services of Metrolink and COASTER.

Discussion

This report provides an update on the average systemwide on-time performance (OTP) of the Amtrak Pacific Surfliner for the second quarter (Q2) of FY 2024-25. The following metrics give an overview of the Pacific Surfliner train OTP scores for the reporting quarter, as well as information about delay causes:

- Endpoint OTP
- Total Trains Operated
- Total Trains Cancelled or Suspended
- Customer OTP
- Ridership
- Endpoint OTP by Train
- Total Train Miles
- Systemwide Delays by Responsible Party, Per 10,000 Train Miles
- Systemwide Delays by Delay Type, Per 10,000 Train Miles
- Host-Responsible Delays, Per 10,000 Train Miles
- Total Delays Around Stations (or Other Specific Locations)

Endpoint OTP

Endpoint OTP represents the percentage of trains arriving to their final station within 15 minutes of their schedule arrival time. This metric is part of the Uniform Performance Standards that the LOSSAN Agency is required to report to the California State Transportation Agency (CalSTA), which sets a 90 percent endpoint OTP standard.

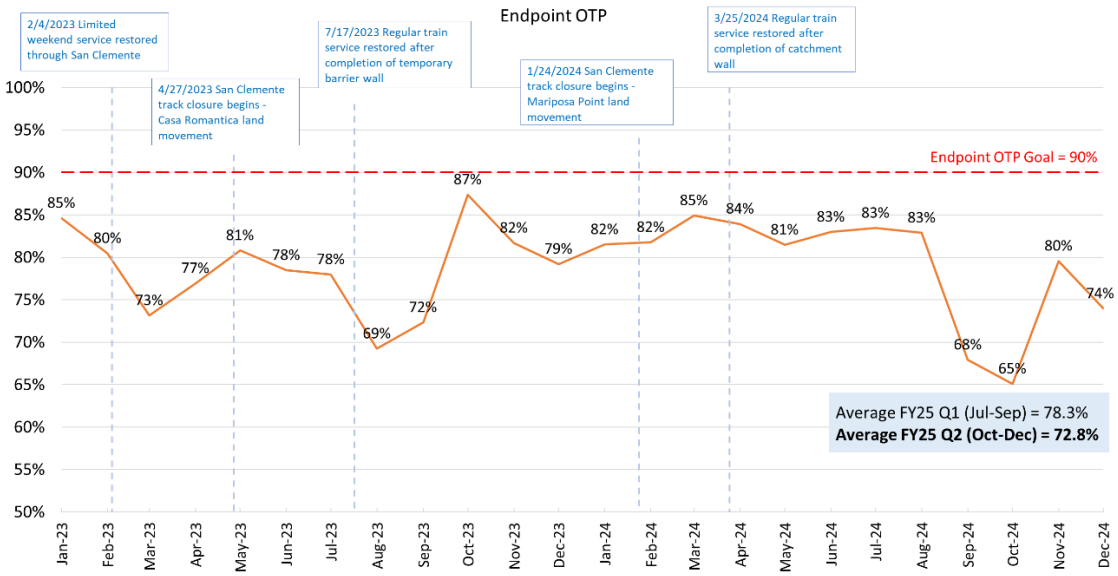
Figure 2: Endpoint OTP by Total Trains Operated

Values	FY 2025 Q1	FY 2025 Q2	% Change
Late	413	497	20.3%
On-Time	1,486	1,329	-10.6%
Operated	1,899	1,826	-3.8%
Endpoint OTP	**78.3%**	**72.8%**	**-7.0%**

As shown in Figure 2, for Q2 FY 2024-25, 1,329 of 1,826 operated Pacific Surfliner trains arrived at their endpoint station on-time, while 497 trains arrived late. This results in a systemwide endpoint OTP score of 72.8 percent for Q2 FY 2024-25, representing a 7.0 percent decrease from 78.3 percent endpoint OTP for the previous quarter.

Figure 4 shows historical monthly systemwide endpoint OTP from January 2023 to the present. Notes within the chart highlight the events that have had significant impacts on OTP.

Figure 4: Endpoint OTP



The sharp decline in OTP that began in September 2024 and continued into October 2024 was primarily due to operational challenges on the BNSF Railway between Los Angeles and Fullerton. In early 2024, BNSF relocated its Southern California dispatching functions from San Bernardino, California to Fort Worth, Texas, leading to disruptions as newly assigned dispatchers were less familiar with the territory. BNSF has since assigned a senior manager to oversee dispatching, which is expected to improve OTP. Additionally, widespread vandalism along the corridor caused extended service delays for both passenger and freight trains. BNSF is evaluating measures to enhance corridor security and prevent future disruptions.

Further compounding OTP challenges, multiple locomotives experienced engine-related issues in October 2024, rendering them inoperable. There have been issues on hydraulic, coolant, and DEF hoses, which are failing much earlier than expected by the manufacturer. LOSSAN is working with Amtrak and Caltrans to procure repair kits to address these failing parts, while working to create updated replacement cycles to proactively address these issues moving forward.

On any given date, an incident can lead Amtrak to either cancel or suspend one or more scheduled trains. Cancelled trains are treated as late trains, and are

reflected in endpoint and customer OTP calculations, but suspended trains are not included. A cancellation means that Amtrak decided not to operate the train less than four hours before its scheduled departure. A suspension means that Amtrak decided not to operate the train at least four hours before its scheduled initial terminal departure. The table in Figure 3 shows that for Q2 FY 2024-25, 37 trains were cancelled, and 4 trains were suspended, representing an 17.1 percent increase from the previous quarter. The variance is caused by an increase in engine failures from the previous quarter.

Status	FY 2025 Q1	FY 2025 Q2	% Change
Cancelled	20	37	85.0%
Suspended	15	4	-73.3%
Total	**35**	**41**	**17.1%**

Figure 3: Total Trains Cancelled or Suspended

Endpoint OTP by Train

One major delay incident can result in cascading delays that impact multiple trains throughout the day. One factor is that individual train consists are normally used by multiple trains throughout the day. For example, upon its arrival to Santa Fe Depot in San Diego, the same equipment used to operate southbound Train 564 is then used to operate northbound Train 777. Therefore, delays experienced by southbound Train 564 have the potential to result in delays for northbound Train 777, as well as any additional trains operated with the same train consist.

Figure 7: Endpoint OTP by Train

Train	Orig-Dest	3-Month Average	# Trains On Time	# Trains Operated
770	GTA-SAN	85.9%	79	92
564	LAX-SAN	83.7%	77	92
790	GTA-SAN	83.7%	77	92
562	LAX-SAN	80.4%	74	92
591	SAN-LAX	80.4%	74	92
785	SAN-GTA	80.4%	74	92
761	SAN-SLO	78.3%	72	92
572	LAX-SAN	77.5%	69	89
586	LAX-SAN	77.5%	69	89
765	SAN-GTA	75.0%	69	92
580	LAX-SAN	72.8%	67	92
769	SAN-GTA	72.8%	67	92
573	SAN-LAX	71.9%	64	89
581	SAN-LAX	71.7%	66	92
587	SAN-LAX	69.7%	62	89
794	SLO-SAN	69.6%	64	92
595	SAN-LAX	66.7%	60	90
774	SLO-SAN	59.8%	55	92
777	SAN-SLO	57.6%	53	92
784	GTA-SAN	40.2%	37	92
System		**72.8%**	**1329**	**1826**

Figure 7 shows individual endpoint OTP for each train that operated during Q2 FY 2024-25. During this period, no trains reached the endpoint OTP goal of 90 percent or above. The train with the lowest endpoint OTP average for the quarter was Train 784, which increased delays due to commuter train and passenger train interference. As previously mentioned, delays can be attributed to various factors, but for FY25 Q2, they were primarily caused by vandalism and theft of protective crossing equipment within the Southern California region, along with dispatching challenges on the BNSF Railway and mechanical failures affecting multiple locomotives.

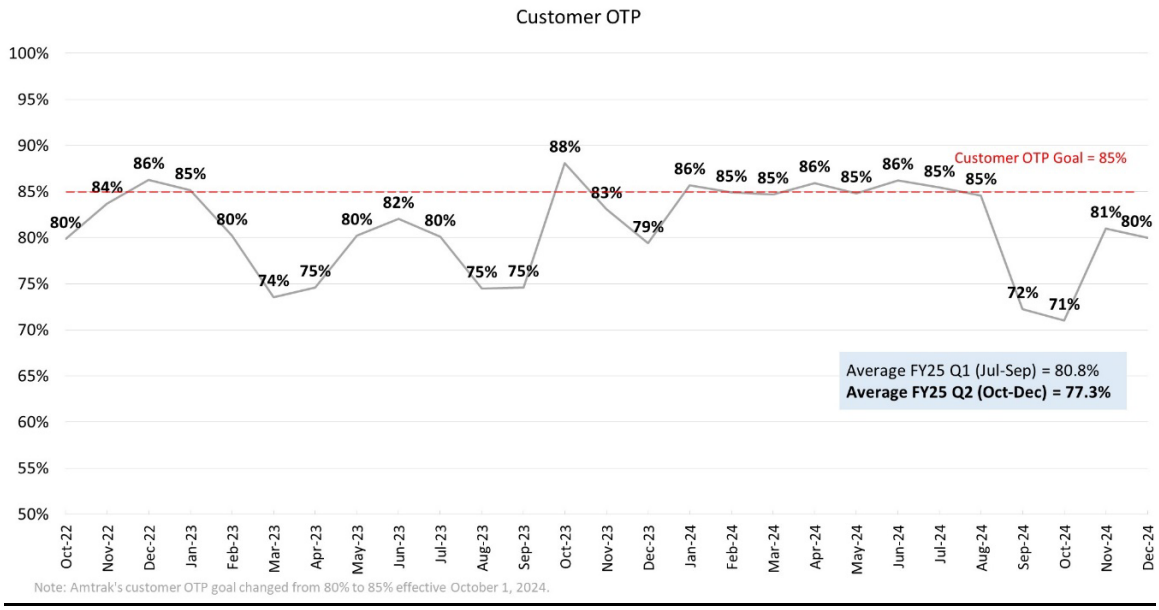
Customer OTP

Customer OTP measures the on-time arrival of every passenger, including those who detrain at intermediate stops along a route and those who ride the entire route.

The 85 percent goal shown in red in Figure 5 is set by Amtrak. For Q2 FY 2024-25, customer OTP averaged 77.3 percent, representing a 3.5 percent decrease from 80.8 percent in the previous quarter. As mentioned, the decline was driven by a sharp drop in September 2024 that continued into

October 2024 due to dispatching issues following BNSF's relocation of Southern California dispatching functions and increased vandalism along the corridor, which led to slow orders and crossing protection measures.

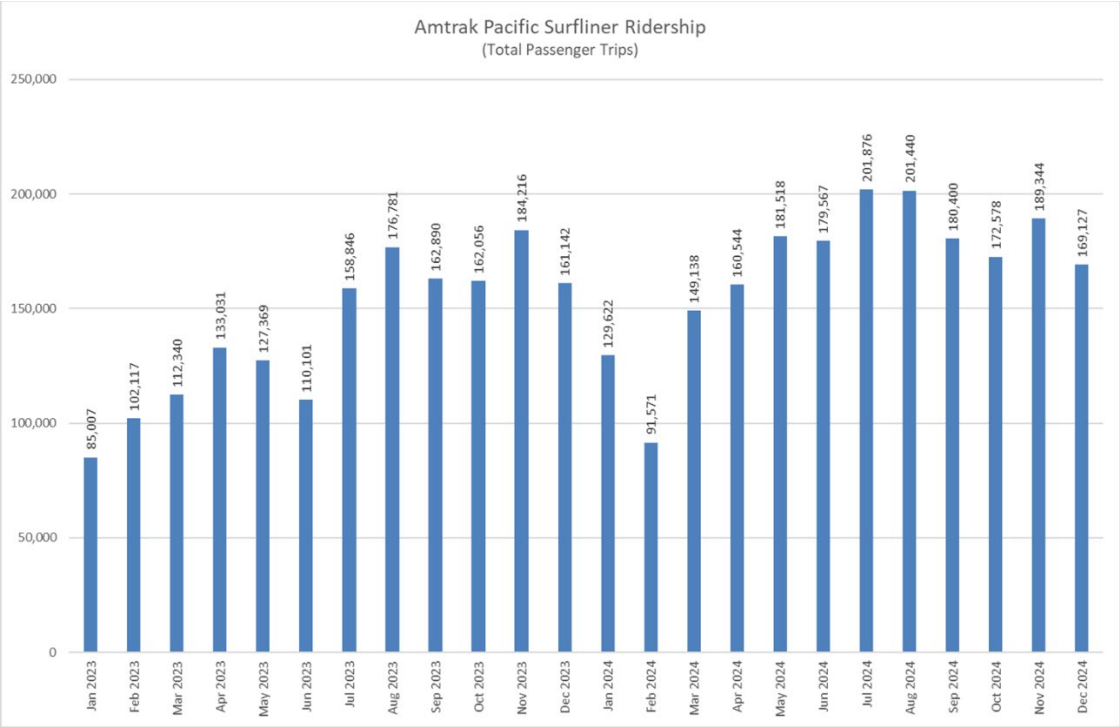
Figure 5: Customer OTP



Ridership

Various passenger related delays may impact train OTP. In general, the higher the systemwide ridership, the higher the incidences of passenger related delays. The chart in Figure 6 shows historical monthly ridership. As shown in Figure 6, for Q2 FY 2024-25, there were 531,049 passenger trips on the Pacific Surfliner, representing a roughly 9.0 percent decrease from 583,716 passenger trips in the previous quarter. The decrease in ridership is primarily attributed to the conclusion of the weekend promotional summer service schedule, which ended in mid-September.

Figure 6: Total Monthly Ridership



Systemwide Delays by Responsible Party, Per 10,000 Train Miles

Delay minutes are attributed to a variety of causes, or delay types, using a three-letter coding system. In addition, each delay type is categorized under one of three responsibility groups: Host, Amtrak, or Third Party.

The rate metric of minutes of delay by responsible party per 10,000 train miles is useful for comparing levels of delay for periods or territories that may have differing levels of Pacific Surfliner service. This measure is normalized by dividing the total minutes of delay for all operated trains by the total number of miles traveled by all trains, then multiplying the decimal result by 10,000.

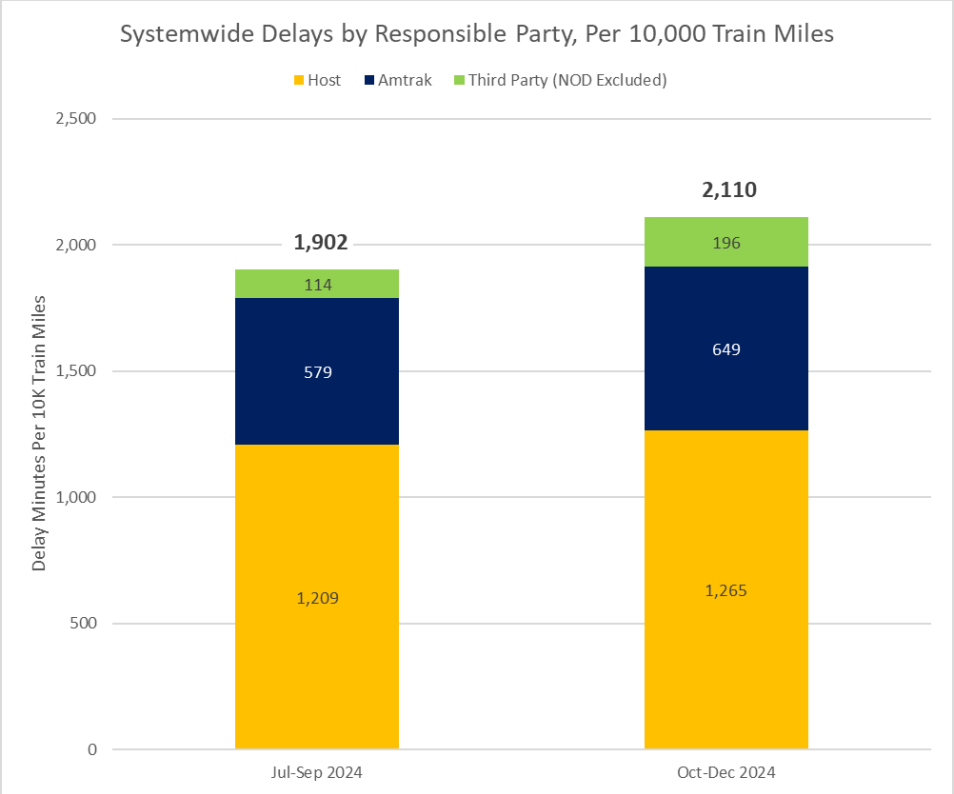
For Q2 FY 2024-25, the Pacific Surfliner operated a total of 370,333 train miles, representing a 3.8 percent decrease from the 384,864 train miles operated in the previous quarter.

Host-responsible delay types (shown in yellow in Figure 8) continue to be the largest category of delay types for the entire Pacific Surfliner, followed by Amtrak-related delays (shown in blue), then third party (shown in green). While minutes of unused recovery time (coded as NOD) are included in the raw data set used for delay analyses, they are excluded from delay analyses, since NOD

is not actually a delay, and just represents the minutes a train spends waiting to avoid operating ahead of schedule.

Overall, for Q2 FY 2024-25, there were 2,110 minutes of delay per 10,000 train miles, representing a 10.9 percent increase in the overall delay rate compared to Q1 FY 2024-25. The rate of host-responsible delays increased by 4.6 percent, the rate of Amtrak-responsible delays increased by 12.1 percent, and the rate of third party-responsible delays increased by 71.8 percent. The increase in third party-responsible delays is primarily attributed to trespasser-related delays.

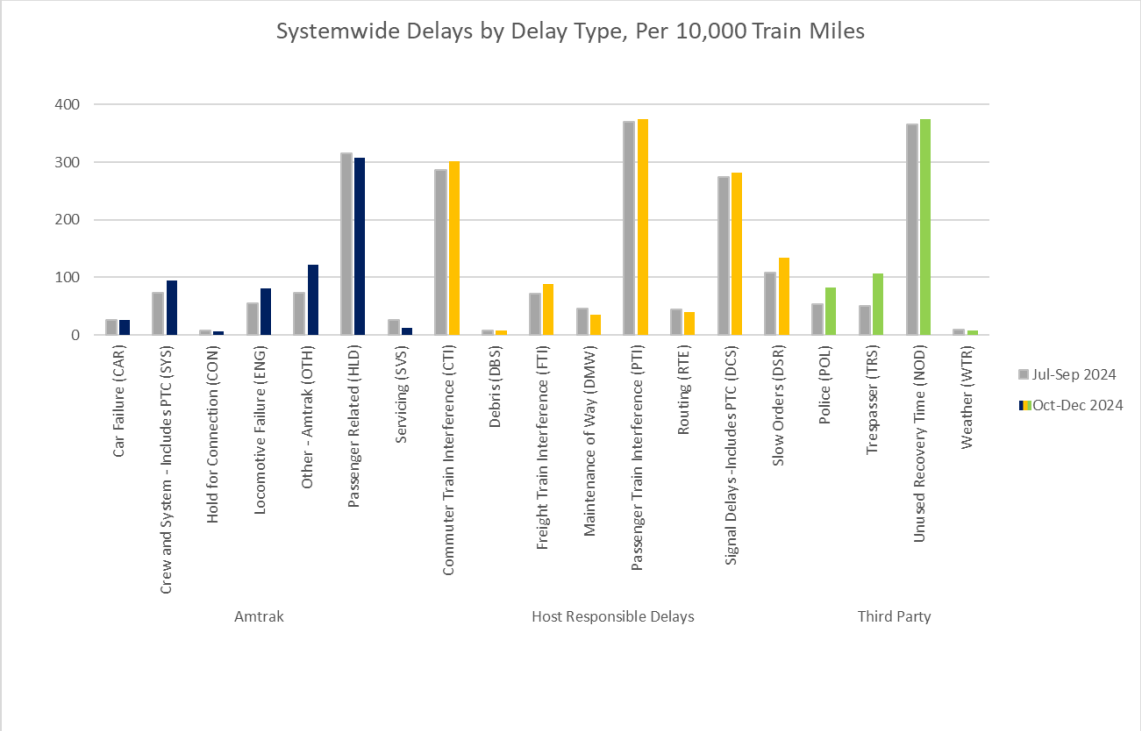
Figure 8: Systemwide Delays by Responsible Party, Per 10,000 Train Miles



Systemwide Delays by Delay Type, Per 10,000 Train Miles

During Q2 FY 2024-25, the most significant individual delays were categorized as host-responsible and Amtrak delays, specifically passenger train interference, commuter train interference, and passenger-related delays.

Figure 9: Systemwide Delays by Delay Type, Per 10,000 Train Miles



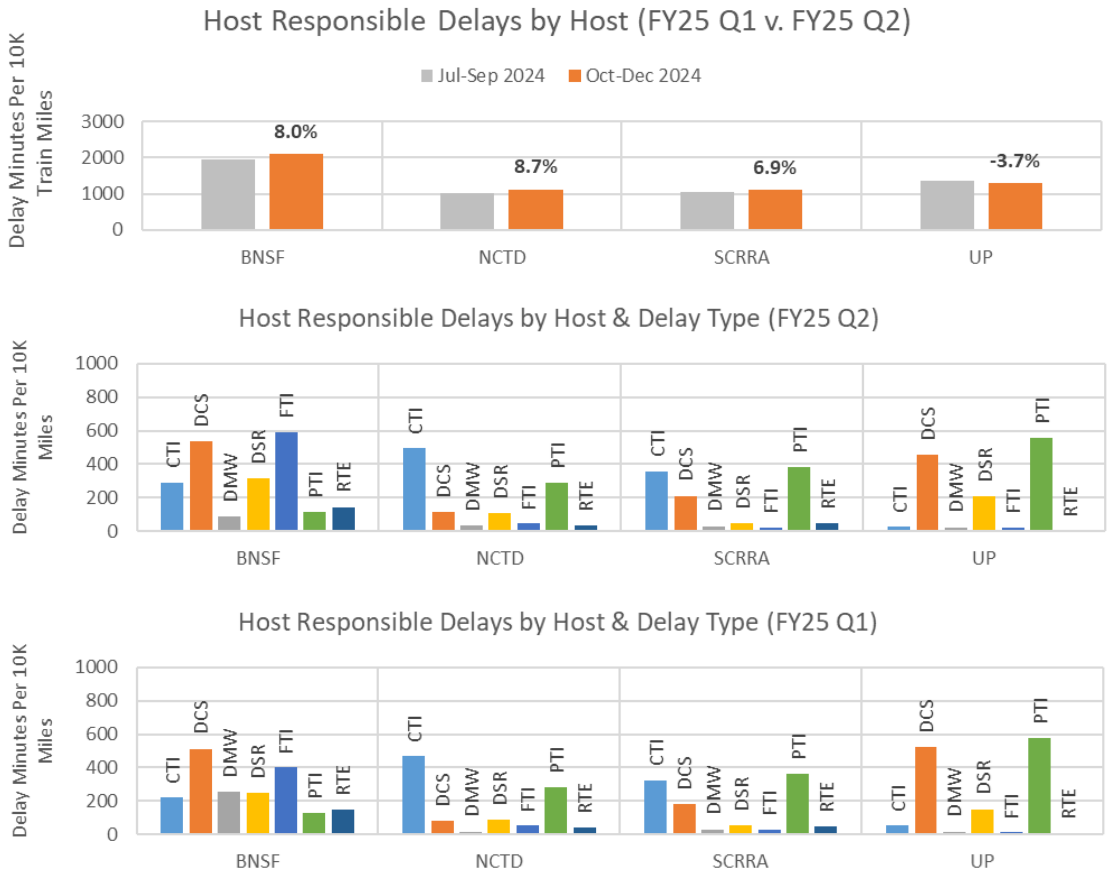
Host-Responsible Delays, Per 10,000 Train Miles

Each host territory location is unique and has its own pattern of challenges to be monitored. Figure 10 has three charts showing only host-responsible delays per 10,000 train miles, by host railroad. Overall, for Q2 FY 2024-25, the host-responsible delay rate within BNSF territory increased by eight percent, in NCTD territory increased by 8.7 percent, in SCRRA territory increased by 6.9 percent. and in UPRR territory decreased by 3.3 percent.

The second chart in Figure 10 clearly illustrates what the prominent delay contributors[1] were within each host territory in Q2 FY 2024-25. In BNSF territory, the top delay types were signal delays and freight train interference. In NCTD and SCRRA territory, the top delay types were commuter train interference and passenger train interference. In UP territory, the top delay types were signal delays and passenger train interference.

[1] Refer to Figure 9 for definitions of three-letter delay codes.

Figure 10: Host-Responsible Delays, Per 10,000 Train Miles

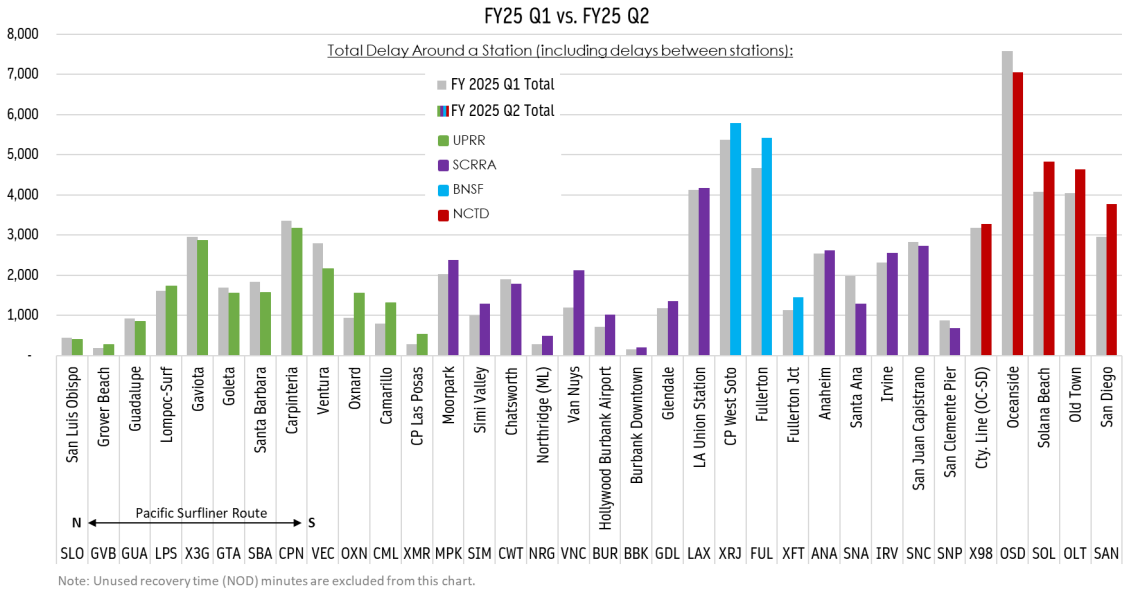


Total Delays Around Stations (or Other Specific Locations)

Figure 11 shows total minutes of delay along the entire 351-mile route, for all Pacific Surfliner trains combined. The bars include colors that represent the total minutes of delay around a station for Q2 FY 2024-25, and the gray bars show the same for the previous quarter. Delays between stations were allocated to the starting station of the delay. For example, whether a train was traveling northbound from Solana Beach to Oceanside, or southbound from Solana Beach to San Diego-Old Town, the delay minutes in both examples would be allocated to Solana Beach.

Overall, total minutes of systemwide delay increased by 6.7 percent, from 74,094 in Q1 of FY 2024-25, to 79,068 in Q2 of FY 2024-25. The top three delay station locations were Oceanside, Fullerton, and Solana Beach.

Figure 11: Total Delays Around Stations (or Other Specific Locations)



Note: Unused recovery time (NOD) minutes are excluded from this chart.

Summary

For Q2 FY 2024-25, the Amtrak Pacific Surfliner achieved an average systemwide endpoint on-time performance score of 72.8 percent, which is below the 90 percent standard. Most delay types fell under the host responsibility category. The top individual delay types, regardless of responsibility category, were passenger train interference, commuter train interference, and passenger-related delays.

Attachment

None.

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