

On Time Performance Business Rules

Effective April 1, 2018, revised February 18, 2019

Introduction

Amtrak uses a suite of train performance metrics to assess the efficiency of train movement and service quality. This suite of measures is comprehensive, covering end point, all stations, region and division, train speed, and customer perspectives.

End Point On Time Performance, All Stations On Time Performance, and Effective Speed are reported externally as required by statute/regulation. The entire set of metrics are used as management tools.

Initial Terminal Performance

Description

Initial Terminal Performance (ITP) is the percent of trains leaving their scheduled origin points on time. Initial terminal performance may be computed at the terminal, train, route, division, region, business line, and system level.

On Time Trains

Calculation of initial terminal performance is based on an Initial Terminal tolerance. Trains departing their initial terminal are counted as “On Time” when their actual departure time is no later than the Initial Terminal tolerance.

Initial Terminal Performance tolerances are shown in Appendix 1: Tolerances.

Trains cancelled 4 or more hours prior to departure (planned change) are neither be counted as an operation nor toward initial terminal performance.

Trains originating at an alternate Initial Terminal location, due to a “planned change” (more than 4 hours) are counted in initial terminal performance. Calculation of initial terminal performance is based on application of the Initial Terminal tolerance at the alternate location.

Secondary Trains

Secondary trains are not considered as late at the initial terminal when awaiting the arrival of a delayed primary train, when the secondary train meets one of the following criteria:

1. The secondary train is a split train, part of the same consist as the primary train between the origin and split point.
2. The secondary train is a regularly scheduled connection from a primary train, with the majority of its customers coming from the primary train.

However, should the secondary train depart the terminal in excess of the number of minutes of delay attributed to the primary train’s late arrival, plus initial terminal tolerance, it is counted as a late initial terminal departure. A “CON” delay occurring at the connecting city for the secondary train must be entered for the OTP Monitor Report System to recognize the proper delay.

A train scheduled to separate into two distinct trains at a station is counted as follows:

The primary train is counted from its initial terminal using criteria shown above (1st bullet item).

The secondary train is counted from the point where it separates from the primary train. Should the secondary train depart the terminal in excess of the number of minutes late that the primary train arrived, plus initial terminal tolerance, it is counted as a late initial terminal departure.

The index dates of secondary trains are those of their primary trains.

Examples

1. Train 190 arrives New Haven 45” late. Train 490 departs New Haven 47” late. Train 490 will not be counted as a late initial terminal departure at New Haven because it departed New Haven

less than 49 minutes late (total number of minutes that the host train arrived-45", plus tolerance 03").

2. Train 7 arrives Spokane 45" late. Train 27 departs Spokane 51" late. Train 27 will be counted as a late initial terminal departure at Spokane because it departed Spokane more than 48 minutes late (total number of minutes that the host train arrived late-45", plus tolerance 03"=48").

End Point Performance

Description

End Point On Time Performance (EP OTP) is the percent of trains reaching their scheduled end points on time. It reflects performance of trains at end point only, without adjustment for origin or intermediate performance. EP OTP may be computed and reported at the train, route, business line, and system level.

On Time Trains

All trains, except Acela Express are counted as “On Time” if they arrive at their scheduled end point within the tolerance established for the route.

End Point On Time Performance tolerances are shown in Appendix 1: Tolerances.

Trains are counted as operated for each day, unless the planned change is made 4 or more hours prior to their scheduled origin departure time.

Trains that terminate short of their final destination are counted as “Operated and Lost”. However, if a determination is made 4 or more hours prior to scheduled origin departure time that the train will not operate over a portion of its route, that train is considered “On Time” if it arrives at the new terminating location within tolerance.

Capitol exception: Capitol Corridor trains may terminate short of their final destination while in route and be counted as suspended provided: the train is traveling westbound; is scheduled to terminate at Oakland Coliseum (OAC); all customers have detrained at or before Oakland Jack London Square (OKJ); no customers have boarded at OKJ; the suspended segment is OKJ-OAC.

Secondary Trains

End point performance for secondary trains scheduled to combine (not connect) with a primary train is calculated based on arrival time at the point where the combination is scheduled to take place.

End point performance for secondary trains scheduled to separate (not connect) from a primary train is calculated based on arrival time at the end point.

The index dates of secondary separating trains are those of their primary trains.

Examples

1. Due to a service disruption in the Seattle area, it will be necessary to terminate Train 7 at Edmonds, WA (in advance of its scheduled final destination). This decision was made today, 8 hours prior to train 7's departure from Chicago. Train 7 that departed Chicago two days ago, and Train 7 that departed Chicago yesterday, both scheduled to arrive in Seattle will now terminate at Edmonds, WA. Both trains will be counted as late with regard to Endpoint Arrival performance since they failed to reach their final scheduled terminal. However, Train 7 originating today in Chicago will terminate in Edmonds and be counted as “On-Time” if the train arrives within tolerance at Edmonds WA.
2. Train 28 arrives 35” late at Spokane where it is scheduled to combine with Train 8. Train 28 and 8 combine at Spokane and depart On-Time. Train 8 arrives into Chicago 25” late. Train 28 will be counted as lost due to arrival at Spokane in excess of tolerance. Train 8 will be On-Time due to an arrival within tolerance.

All Stations Performance

Description

All Stations On Time Performance (AS OTP) is the percent of trains arriving at stations along their routes (and departing origin) on time. AS OTP may be computed and reported at the train, route, business line, and system level.

On Time Trains

All trains are counted as “On Time” at a scheduled passenger station (station stop) if they arrive (or depart in case of initial terminal) within tolerance.

All Stations On Time Performance tolerances are shown in Appendix 1: Tolerances.

Secondary Trains

There are no adjustments to the departure performance at the origin for connecting, combining, or separating trains.

The index dates of secondary trains are those of their primary trains.

Example

1. Train 2100 operates for two days, with 5 on time stations stops out of 7 total station stops on day one, and 6 out of 7 on time station stops (with one missing OS) on day two. The all stations performance for day one is 71%, 86% for day two, and 79% overall.

Division On Time Performance

Description

The Amtrak system is comprised of 3 Regions, each of which is divided into Divisions responsible for business processes, including train movement (i.e.: Train and Engine Service employees). Division On Time Performance (DV OTP) is a tool to manage train movement processes. It describes how well trains are moved through a Division (T&E structure) in terms of the share of trains moving through the Division within the scheduled time plus tolerance.

Divisions

The Amtrak system is divided into 6 Divisions. They are: Central; Empire; Northeast; Northwest; Southeast; Southwest.

Division boundaries are shown in Appendix 2: Division Boundaries.

Division boundaries will be *inclusive* for the owning division and *exclusive* for the adjacent division.

When a train is at a boundary point *excluded* in the division it is operating in, its performance is measured using the *Arrival* performance at the boundary point. This is because the boundary point is *not* owned by the division the train is leaving, thus the division has completed its handling of the train when it arrives at the boundary point.

When a train is at a boundary point *included* in the division it is operating in, its performance is measured using the *Departure* performance at the boundary point. This is because the boundary point is owned by the division the train is leaving, thus the division has completed its handling of the train when it departs from the boundary point.

Boundary points will be inclusive/exclusive regardless of direction because the boundary point ownership does not change when trains operate in the opposite direction.

On Time Trains

Trains are on time for a particular Division if they operate across it within their scheduled time plus tolerance.

Division On Time Performance tolerances are shown in Appendix 1: Tolerances.

Performance across a Division in minutes is defined as the minutes late leaving a Division (or arriving at endpoint) net of minutes late entering that Division as applicable (the entry/exit measurement point may be the arrival or departure time at the boundary point, depending on inclusivity). When the minutes lost for a train on a Division is not in excess of its tolerance, it is *on time* (at the Division level). Trains with minutes lost in excess of tolerance, cancelled, or missing OS at either Division entry or exit are *late*. Trains suspended are neither included in the Division OTP calculation nor are the miles over which the suspension applies used in determining tolerance.

Split trains take the origin date of their parent trains. Split train tolerances are determined using the mileage of the split train only. No relief is provided to split trains because of the performance of the parent train.

Customer On Time Performance

Introduction

Customer OTP is a train performance metric that reflects the customer experience by weighting the performance of a train at each station along its route according to ridership to yield a single summary number, defined as the percent of customers arriving at their point of detraining on time. Customer OTP may be computed at the train, route, business line, and system level.

On Time Customers

All customers are counted as “On Time” at their ticketed detraining station if they arrive within tolerance.

Customer On Time Performance tolerances are shown in Appendix 1: Tolerances.

Customers carried-by their ticketed off point are included in the customer arrival count at their ticketed off points.

Re-accommodated customers not due to suspension are excluded from customer arrivals attributed to either their original ticketed train or the train on which they are re-accommodated.

Customers on canceled trains (less than 4 hrs advance notice) are counted as late customer arrivals at their ticketed station if service to their ticketed station is canceled.

Customers on bus bridges are excluded from calculation.

Example

Customer OTP for train 2100 over 2 days is shown below.

Station	Train 2100(1)				Train 2100(2)				Overall		
	Minutes Late	Status	Cust Arrivals	OT Cust Arrivals	Minutes Late	Status	Cust Arrivals	OT Cust Arrivals	Cust Arrivals	OT Cust Arrivals	
WAS	0	-	-	-	0	-	-	-	-	-	
BWI	0	OT	16	16	(Null)	-	-	-	16	16	
BAL	1	OT	24	24	3	OT	31	31	55	55	
WIL	5	OT	11	11	4	OT	27	27	38	38	
PHL	12	LT	63	0	6	OT	81	81	144	81	
NWK	11	LT	4	0	3	OT	0	0	4	0	
NYP	7	OT	210	210	1	OT	155	155	365	365	
Total Customer Arrivals			328	261				294	294	622	555
Customer OTP			80%					100%		89%	

Customer OTP in the above example is 80% for 2100(1), 100% for 2100(2), and 89% for both operations combined. Because no OS was available for 2100(2) at BWI, no customer arrivals are counted, regardless of the number of customers ticketed to detrain. Because the number of customers is different by station and at the train level on both days, the aggregate Customer OTP is not a straight average of the daily numbers.

Appendix 1: Tolerances

Continues on next page.

Initial Terminal Performance

Terminal Tolerances

Effective April 1, 2018

Terminal	Tolerance
All Terminals	3 min

Departure performance origin station measured using flat tolerance. Refer to Amtrak On Time Performance Business Rules for split/connection tolerance adjustments.

End Point On Time Performance
Service/Sub-Service Tolerances

Effective April 1, 2018

Service	Sub-Service	Tolerance
Acela Express		10 min
Northeast Regional	Richmond / Newport News / Norfolk	15 min
Northeast Regional	Lynchburg	15 min
Northeast Regional	On Spine Northeast Regional	15 min
Northeast Regional	Springfield Shuttles	15 min
Capitol Corridor		10 min
Carolinian		30 min
Cascades		15 min
Downeaster		10 min
Empire	Adirondack	15 min
Empire	Ethan Allen Express	15 min
Empire	Maple Leaf	15 min
Empire	New York - Albany	15 min
Empire	New York - Niagara Falls	15 min
Heartland Flyer		10 min
Hiawatha		10 min
Hoosier		15 min
Illinois	Carl Sandburg / Illinois Zephyr	15 min
Illinois	Illini / Saluki	15 min
Illinois	Lincoln Service	15 min
Keystone		10 min
Michigan	Blue Water	15 min
Michigan	Pere Marquette	15 min
Michigan	Wolverine	15 min
Missouri		15 min
Pacific Surfliner		15 min
Pennsylvanian		20 min
Piedmont		10 min
San Joaquins		15 min
Vermont		30 min
Auto Train		30 min
California Zephyr		30 min
Capitol Ltd		30 min
Cardinal		30 min
City Of New Orleans		30 min
Coast Starlight		30 min
Crescent		30 min
Empire Builder		30 min
Lake Shore Ltd		30 min
Palmetto		30 min
Silver Meteor		30 min
Silver Star		30 min
Southwest Chief		30 min
Sunset Ltd		30 min
Texas Eagle		30 min

Arrival performance at end point measured using flat tolerance.

Division On Time Performance

Division Tolerances

Effective April 1, 2018

Serivce	Mileage	Tolerance
Acela Express	NE Div - All Mileages	6 min
	SE Div - All Mileages	3 min
All Other Services	0-50 miles	5 min
	51-250 miles	10 min
	251-350 miles	15 min
	351-450 miles	20 min
	451-550 miles	25 min
	551+ miles	30 min

Tolerance is determined by mileage operated within Division for all services except Acela Express.

All Stations On Time Performance
Service/Sub-Service Tolerances

Effective April 1, 2018

Service	Sub-Service	Tolerance
Acela Express		10 min
Northeast Regional	Richmond / Newport News / Norfolk	15 min
Northeast Regional	Lynchburg	15 min
Northeast Regional	On Spine Northeast Regional	15 min
Northeast Regional	Springfield Shuttles	15 min
Capitol Corridor		15 min
Carolinian		15 min
Cascades		15 min
Downeaster		15 min
Empire	Adirondack	15 min
Empire	Ethan Allen Express	15 min
Empire	Maple Leaf	15 min
Empire	New York - Albany	15 min
Empire	New York - Niagara Falls	15 min
Heartland Flyer		15 min
Hiawatha		15 min
Hoosier		15 min
Illinois	Carl Sandburg / Illinois Zephyr	15 min
Illinois	Illini / Saluki	15 min
Illinois	Lincoln Service	15 min
Keystone		15 min
Michigan	Blue Water	15 min
Michigan	Pere Marquette	15 min
Michigan	Wolverine	15 min
Missouri		15 min
Pacific Surfliner		15 min
Pennsylvanian		15 min
Piedmont		15 min
San Joaquins		15 min
Vermont		15 min
Auto Train		15 min
California Zephyr		15 min
Capitol Ltd		15 min
Cardinal		15 min
City Of New Orleans		15 min
Coast Starlight		15 min
Crescent		15 min
Empire Builder		15 min
Lake Shore Ltd		15 min
Palmetto		15 min
Silver Meteor		15 min
Silver Star		15 min
Southwest Chief		15 min
Sunset Ltd		15 min
Texas Eagle		15 min

Arrival performance at each station (departure performance at origin) measured using flat tolerance.

Customer On Time Performance & Average Minutes Late
Service/Sub-Service Tolerances

Effective April 1, 2018

Service	Sub-Service	Tolerance
Acela Express		10 min
Northeast Regional	Richmond / Newport News / Norfolk	15 min
Northeast Regional	Lynchburg	15 min
Northeast Regional	On Spine Northeast Regional	15 min
Northeast Regional	Springfield Shuttles	15 min
Capitol Corridor		15 min
Carolinian		15 min
Cascades		15 min
Downeaster		15 min
Empire	Adirondack	15 min
Empire	Ethan Allen Express	15 min
Empire	Maple Leaf	15 min
Empire	New York - Albany	15 min
Empire	New York - Niagara Falls	15 min
Heartland Flyer		15 min
Hiawatha		15 min
Hoosier		15 min
Illinois	Carl Sandburg / Illinois Zephyr	15 min
Illinois	Illini / Saluki	15 min
Illinois	Lincoln Service	15 min
Keystone		15 min
Michigan	Blue Water	15 min
Michigan	Pere Marquette	15 min
Michigan	Wolverine	15 min
Missouri		15 min
Pacific Surfliner		15 min
Pennsylvanian		15 min
Piedmont		15 min
San Joaquins		15 min
Vermont		15 min
Auto Train		15 min
California Zephyr		15 min
Capitol Ltd		15 min
Cardinal		15 min
City Of New Orleans		15 min
Coast Starlight		15 min
Crescent		15 min
Empire Builder		15 min
Lake Shore Ltd		15 min
Palmetto		15 min
Silver Meteor		15 min
Silver Star		15 min
Southwest Chief		15 min
Sunset Ltd		15 min
Texas Eagle		15 min

Arrival performance at detraining station measured using flat tolerance.

Appendix 2: Division Boundaries

Division	Boundary Point
Northeast	Holmes (Exclusive) Buffalo (Inclusive, Lake Shore only)
Southeast	Charlottesville (Inclusive) Holmes (Inclusive) Jackson (Inclusive) Pittsburgh (Inclusive) Beaumont (Exclusive)
Central-Northwest	Pittsburgh(Exclusive) Buffalo (Exclusive) Charlottesville (Exclusive) Grand Junction (Exclusive) Dodge City (Exclusive) Marshall (Exclusive) Jackson(Exclusive) Klamath Falls (Inclusive)
Southwest	Grand Junction (Inclusive) Klamath Falls (Exclusive) Marshall (Inclusive) Dodge City (Inclusive) Beaumont (Inclusive)

Appendix 3: Glossary

Term	Definition
Cancellation	A train not operated over all or part of its route when the decision not to operate is made within four hours of train time or any time after train time.
Capitol's Exception	An exception to the cancellation rule where a Capitol Corridor train operating westbound with an endpoint of Oakland Coliseum (OAC) may terminate at Oakland Jack London Square (OKJ) if there are no passengers received/on board traveling to OAC. The segment between OKJ and OAC will be treated as a suspension. See also: Cancellation; Suspension.
Connection	An arrangement where a secondary train receives customers from or delivers customers to a primary train. See also: Primary Train; Secondary Train.
Index Date	Route origin date. Date at which a train departs (or would depart) its scheduled origin as indicated in the public time table.
Initial Terminal Station	First station as listed in a train's route in the Arrow system. The initial terminal station usually corresponds with the first station in the public time table, unless there is a suspension at the beginning of the train's route. See also: Suspension.
OS	Recorded train arrival, departure, or passing time for a station or X-point.
Parent Train	A train with a consist that is physically split or joined along its route, giving rise to or merging with a split train. The parent train retains its train number when the two consist sections are split or joined. See also: Primary Train; Secondary Train; Split Train.
Primary Train	A train on which a connecting (split or secondary train) is dependent. Includes parent trains. See also: Parent Train, Secondary Train, Split Train.
Public Time Table	A public representation of a train's schedule. Public time table may vary from the Arrow system in the event of suspensions. See also: Schedule; Suspension.
Schedule	The Arrow system schedule for a train, showing scheduled arrival/departure times for stations and X-points. See also: Public Time Table.
Secondary Train	A train connecting to or from another train on which the connection is dependent. Includes split trains. See also: Parent Train; Primary Train, Split Train.
Split Train	A train with a consist that is physically split or joined along its route from or to a parent train, originating or terminating at a midpoint in the route of the parent train. See also: Parent Train; Primary Train; Secondary Train.
Suspension	A train not operated over all or part of its route when the decision not to operate is made four or more hours before of train time. See also: Capitol's Exception.
Tolerance	Time in minutes beyond arrival or departure time indicated in a train's schedule within which a train will be deemed on time. See also: Schedule.

AMTRAK NETWORK TRANSPORTATION

EVP/Chief Operating Officer:

Scot Naparstek

VP Transportation:

Mike DeCataldo

Divisions:

Paul O'Mara

Central/Northwest

Eric Hosey

Southwest

Steve Young

Northeast

Shawn Gordon

Southeast



AMTRAK

Information on the document correct as of March 2019
Please contact Jeanne Cantu for information regarding this map.

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