

VICTORIA REGIONAL TRANSIT SYSTEM WINTER 2014 SERVICE PERFORMANCE REPORT

Introduction

This report presents the ridership performance review for the Victoria Regional Transit System at the system and route level over the period of December 30, 2013 to April 6th, 2014 against the performance design guidelines developed through the service review process.

Performance Guidelines

What they are and what they define: Performance Guidelines define numerical thresholds and targets for a particular system and its routes and services.

Why they matter: Working in tandem with Service Design Standards, Performance Guidelines are tools that evaluate existing services, identify trends in performance and, based on this evidence, determine how service and supporting features (fares, marketing, facilities, etc.) should be adjusted to improve the effectiveness and efficiency of the system to optimize resources.

For a service to be efficient and productive, a balance should be achieved between oversupply and overcrowding. A number of measures can establish this equilibrium such as:

- Implement transit priority
- Alter frequency
- Reduce/increase coverage
- Targeted marketing/Corridor branding
- Change service span
- Change bus stop spacing
- Bus route changes
- Vehicle type allocation



When performance falls below the set guidelines, recommendations to the Commission will focus on the utilization of the above tools to maximize efficiency.

Performance Measures

Performance measures have been chosen that evaluate the effectiveness of service planning investments on a system and route level.

System level: The measure used for the system guidelines is:

Average boardings per revenue hour - Measures the total volume of ridership as compared to the supply of transit service.

Cost per passenger trip – Measures the average cost to provide service per passenger trip

Cost recovery – A measure of the financial performance of the transit system usually expressed in terms of total operating revenue/total operating expenses.

Passengers trips per capita – Measures the ratio between transit trips and the population of the service area

Route level: The measures used for the route level guidelines are:

Average boardings per revenue hour - Measures the total volume of ridership as compared to the supply of transit service.


Average boardings per trip - Measures the total number of people that board a vehicle on a specific trip.

Route level performance guidelines have been classified into four categories (rapid transit, frequent transit, local transit and targeted transit) to acknowledge different performance expectations based on a route's objective.

Performance Targets

Table 9 and 10 outline the performance targets set for the system and route level. As well as monitoring existing performance against these guidelines, historical trends will also be monitored to determine if the system or routes are becoming more or less efficient over time. Significant variance (+/ – 25%) from the target will place a route on an action list for further investigation and will require more detailed analysis. Routes that fall below the 25% variance will be candidates for corrective adjustments and routes that fall above the 25% variance will be candidates for service improvements. BC Transit will report on an annual basis how the system and routes are performing and this will help guide planning decisions

 Investigate for corrective action

 Investigate for service improvements.

System Level

The purpose of monitoring system wide performance is to identify trends in system performance and compare the performance of the transit system with other peer transit systems. These measures are designed to monitor the pulse of the Victoria Regional Transit System as a whole and guide service planning decisions. This can be particularly useful when identifying system wide impacts of major investments in the transit network such as, development of the rapid and frequent transit networks.

Table 9: System Level Performance Guidelines

System	Measure
Boardings per revenue hour	50
Cost per passenger trip	4.5
Cost recovery	30%
Passengers trips per capita	65

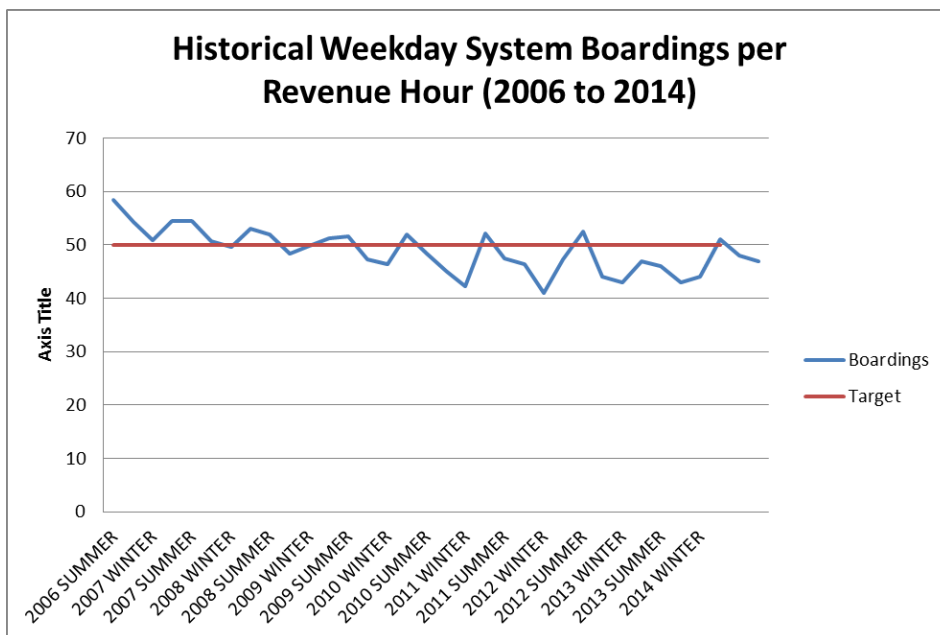
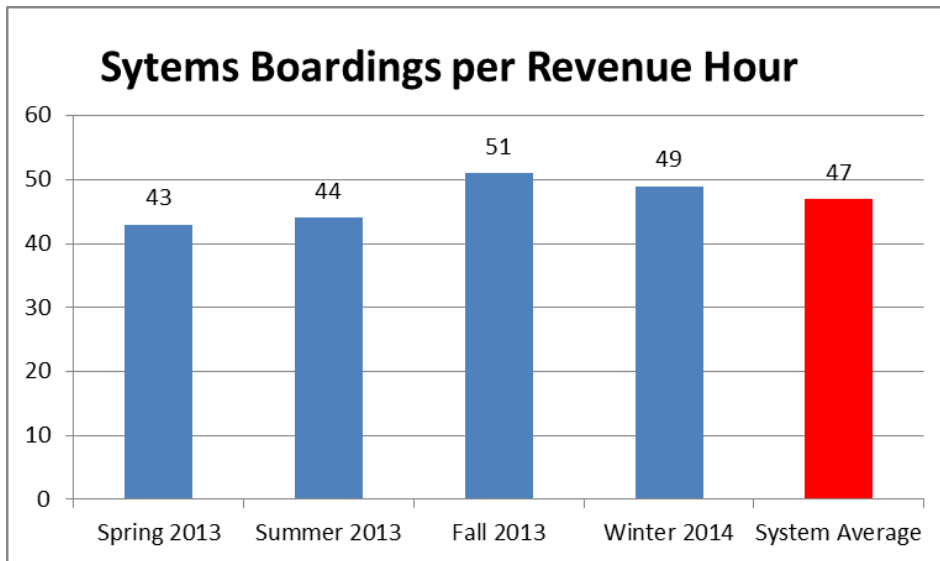
Route Level

Analysis on a route-by-route basis gives a detailed indication of how individual components of the transit system are performing. A route-by-route analysis allows observations of the impact of service changes and investments made in the past and identifies future opportunities for strategic investment or re-investment.

Table 10: Route Level Performance Guidelines

	Boardings per Trip	Boardings per Revenue Hour
Rapid Transit	40	55
Frequent Transit	40	55
Local Transit (High Demand)	25	40
Local Transit (Coverage)	10	20
Targeted Transit	40	60
Community Coverage	-	5

Transit System Performance Results



Weekday boardings are trending upward likely due to service increases, efficiency improvements and a recovery in ridership from the labour disruption in 2012.

Declining performance between 2006 and 2012 could be related to:

- Investments in service between 2005 and 2010 had been directed towards lower performing types of services such as evening service, an expansion of community bus in suburban and rural areas, as well as expansion of conventional service on the Peninsula
- More resources (service hours) are required to undertake the same amount of trips due to slower travel speeds and as a result fewer passengers are carried per revenue hour

System Performance- December 30, 2013 to April 6th, 2014 Period

Weekday System Performance

System Level	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target					50
System Total	3,160	2,040.72	99,490	31.5	49
Urban Total	2,376	1,461.33	81,185	34.2	55
Western Total	462	311.57	11,188	24.2	36
Peninsula Total	322	267.82	7,117	22.1	27
Suburban Total	784	579.39	18,305	23.3	32

Saturday System Performance

System Total	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target					50.0
System Total	2,000	1,247.26	58,260	29.1	47
Urban Total	1,514	913.76	49,234	32.5	54
Western Total	306	181.43	5,163	16.9	28
Peninsula Total	180	152.07	3,863	21.5	25
Suburban Total	486	333.50	9,026	18.6	27

Sunday System Performance

System Total	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target					50.0
System Total	1,489	913.58	40,549	27.2	44
Urban Total	1,103	653.10	33,141	30.0	51
Western Total	234	136.54	4,206	18.0	31
Peninsula Total	152	123.94	3,202	21.1	26
Suburban Total	386	260.48	7,408	19.2	28

Route Performance Results

Weekday Route Performance

Rapid Transit Routes

Rapid Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
15 - Downtown/UVic Express	125	43.98	2,935	23.5	66.7
16 - Uptown/UVic Express	77	28.28	2,194	28.5	77.6
50 - Langford Exch/Downtown	172	124.73	6,359	37.0	51.0
70 - Swartz Bay/Downtown Express	58	53.58	1,638	28.2	30.6

----- Investigate for corrective action

----- Investigate for service improvements

Frequent Transit Routes

Frequent Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
4 - UVic/Downtown	198	100.08	6,632	33.5	66.3
6 - Esquimalt/Royal Oak	234	181.12	11,049	47.2	61.0
11 - UVic/Tillicum Mall	145	132.87	7,017	48.4	52.8
14 - UVic/Vic Gen	211	177.72	9,529	45.2	53.6
26 - UVic/Dockyard	100	72.42	4,700	47.0	64.9
27 - Gordon Head/Downtown	117	67.72	4,478	38.3	66.1
28 - Majestic/Downtown	123	69.05	4,615	37.5	66.8
30 - Royal Oak Exch/James Bay	92	67.12	3,519	38.3	52.4
31 - Royal Oak Exch/James Bay	93	65.63	4,239	45.6	64.6

----- Investigate for corrective action

----- Investigate for service improvements

Targeted Transit Routes

Targeted Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	60.0
17 - Cedar Hill Sch Special	2	1.20	69	34.5	57.5
19 Hillside	2	0.93	56	28.0	60.2
29 - UVic	2	0.83	55	27.5	66.3
33 - UVic	5	3.12	175	35.0	56.1
51 - Langford Exch/UVic	13	9.10	447	34.4	49.1
76 - Swartz Bay/UVic	2	1.50	76	38.0	50.7

----- Investigate for corrective action

----- Investigate for service improvements

----- Limited Samples

Local Transit Routes

Local Transit - Urban	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				25.0	40.0
2 - Oak Bay/Willows - Downtown	124	46.77	2,400	19.4	51.3
3 - Gonzales/Beacon Hill	73	41.27	1,601	21.9	38.8
7 - UVic/Downtown	120	58.28	3,243	27.0	55.6
8 - Interurban/Oak Bay	46	35.42	1,723	37.5	48.6
21 - Interurban/Downtown	92	49.20	2,710	29.5	55.1
22 - Vic General/Hillside Mall	71	55.98	1,919	27.0	34.3
24 - Admirals Walk/Cedar Hill	44	29.52	919	20.9	31.1
25 - Admirals Walk/Maplewood	42	34.75	1,061	25.3	30.5
39 - Royal Roads/UVic	60	39.93	2,330	38.8	58.4
61 - Sooke/Downtown	63	54.12	1,704	27.0	31.5
72 - Swartz Bay/Downtown via Fifth	81	92.22	2,598	32.1	28.2
75 - Saanichton/Royal Oak/DT	74	62.10	2,005	27.1	32.3

----- Investigate for corrective action

----- Investigate for service improvements

Local Transit - Coverage	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				10.0	20.0
1 - Richardson/Downtown	12	3.55	73	6.1	20.6
10 - Jubilee/Dockyard	65	29.23	713	11.0	24.4
12 - University Heights/UVic	40	10.15	622	15.6	61.3
13 - Cadboro Bay/UVic	12	2.90	57	4.8	19.7
32 - Cordova Bay	31	10.32	280	9.0	27.1
35 - Ridge	18	5.10	272	15.1	76.6
49 - Langford Exchange	12	1.40		0.0	0.0
52 - Colwood	64	35.73	1,596	24.9	44.7
53 - Atkins	27	9.68	81	3.0	8.4
54 - Metchosin	10	9.45		0.0	0.0
55 - Happy Valley	7	6.83		0.0	0.0
56 - Florence Lake	23	14.10		0.0	0.0
57 - Millstream	20	15.55	641	32.1	41.2
58 - Langford Meadows	20	7.55		0.0	0.0
59 - Triangle Mountain	9	4.95	72	8.0	14.5
60 - Wishart	9	4.95		0.0	0.0
63 - Otter Point	4	2.20	112	28.0	50.9
64 - East Sooke	9	9.83	176	19.6	17.9
81 - Swartz Bay/Brentwood	32	23.60	344	10.8	14.6
83 Sidney/Royal Oak	17	15.95	238	14.0	14.9
85 North Saanich	9	6.20	46	5.1	7.4
86 Deep Cove/McTavish Exch	4	1.30	6	1.5	4.6
88 Sidney/Airport	45	11.20	166	3.7	14.8

----- Investigate for corrective action

----- Investigate for service improvements

----- Limited Samples

Saturday Route Performance

Rapid Transit Routes

Rapid Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
15 - Downtown/UVic Express	0	:	:	:	:
16 - Uptown/UVic Express	0	:	:	:	:
50 - Langford Exch/Downtown	126	85.55	4,299	34.1	50.3
70 - Swartz Bay/Downtown Express	22	21.27	691	31.4	32.5

----- Investigate for corrective action

----- Investigate for service improvements

Frequent Transit Routes

Frequent Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
4 - UVic/Downtown	129	59.50	3,919	30.4	65.9
6 - Esquimalt/Royal Oak	168	118.92	7,669	45.6	64.5
11 - UVic/Tillicum Mall	121	101.12	5,804	48.0	57.4
14 - UVic/Vic Gen	128	99.20	5,563	43.5	56.1
26 - UVic/Dockyard	129	82.92	4,980	38.6	60.1
27 - Gordon Head/Downtown	84	50.17	3,432	40.9	68.4
28 - Majestic/Downtown	86	48.62	3,777	43.9	77.7
30 - Royal Oak Exch/James Bay	73	50.33	2,946	40.4	58.5
31 - Royal Oak Exch/James Bay	75	48.38	2,979	39.7	61.6

----- Investigate for corrective action

----- Investigate for service improvements

Targeted Transit Routes

Targeted Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	60.0
17 - Cedar Hill Sch Special	0	:	:	:	:
18 - Cedar Hill Sch Special	0	:	:	:	:
19 Hillside	0	:	:	:	:
29 - UVic	0	:	:	:	:
33 - UVic	0	:	:	:	:
51 - Langford Exch/UVic	0	:	:	:	:
76 - Swartz Bay/UVic	0	:	:	:	:

----- Investigate for corrective action

----- Investigate for service improvements

----- Limited Samples

Local Transit Routes

Local Transit - Urban	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				25.0	40.0
2 - Oak Bay/Willows - Downtown	85	30.48	1,573	18.5	51.6
3 - Gonzales/Beacon Hill	38	20.12	719	18.9	35.7
7 - UVic/Downtown	86	41.10	1,643	19.1	40.0
8 - Interurban/Oak Bay	40	27.47	731	18.3	26.6
21 - Interurban/Downtown	28	11.37	382	13.6	33.6
22 - Vic General/Hillside Mall	61	43.28	1,780	29.2	41.1
24 - Admirals Walk/Cedar Hill	32	19.93	450	14.1	22.6
25 - Admirals Walk/Maplewood	33	22.22	557	16.9	25.1
39 - Royal Roads/UVic	16	5.07	237	14.8	46.7
61 - Sooke/Downtown	36	21.17	741	20.6	35.0
72 - Swartz Bay/Downtown via Fifth	69	77.43	2,193	31.8	28.3
75 - Saanichton/Royal Oak/Downtown	37	30.42	841	22.7	27.6

Local Transit - Coverage	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				10.0	20.0
1 - Richardson/Downtown		:	:	:	:
10 - Jubilee/Dockyard	56	22.37		0.0	0.0
12 - University Heights/UVic	20	4.67		0.0	0.0
13 - Cadboro Bay/UVic	6	1.52		0.0	0.0
32 - Cordova Bay	20	5.00	93	4.7	18.6
35 - Ridge		:	:	:	:
49 - Langford Exchange		:	:	:	:
52 - Colwood	55	28.33		0.0	0.0
53 - Atkins	23	8.92		0.0	0.0
54 - Metchosin	7	7.62	123	17.6	16.1
55 - Happy Valley		:	:	:	:
56 - Florence Lake	14	7.70		0.0	0.0
57 - Millstream	15	9.75		0.0	0.0
58 - Langford Meadows	17	6.12		0.0	0.0
59 - Triangle Mountain	7	3.37		0.0	0.0
60 - Wishart	6	2.90		0.0	0.0
63 - Otter Point		:	:	:	:
64 - East Sooke		:	:	:	:
81 - Swartz Bay/Brentwood	14	10.92		0.0	0.0
83 Sidney/Royal Oak	8	4.78	54	6.8	11.3
85 North Saanich		:	:	:	:
86 Deep Cove/McTavish Exch		:	:	:	:
88 Sidney/Airport	30	7.25	84	2.8	11.6

----- Investigate for corrective action
 Limited Samples

----- Investigate for service improvements

Sunday Route Performance

Rapid Transit Routes

Rapid Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
15 - Downtown/UVic Express		:	:	:	:
16 - Uptown/UVic Express		:	:	:	:
50 - Langford Exch/Downtown	104	68.17	3,245	31.2	47.6
70 - Swartz Bay/Downtown Express	21	19.12	782	37.2	40.9

----- Investigate for corrective action

----- Investigate for service improvements

Frequent Transit Routes

Frequent Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	55.0
4 - UVic/Downtown	88	40.75	2,540	28.9	62.3
6 - Esquimalt/Royal Oak	110	78.95	5,352	48.7	67.8
11 - UVic/Tillicum Mall	77	63.75	3,241	42.1	50.8
14 - UVic/Vic Gen	102	78.33	4,116	40.4	52.5
26 - UVic/Dockyard	87	53.75	3,184	36.6	59.2
27 - Gordon Head/Downtown	66	42.45	2,861	43.3	67.4
28 - Majestic/Downtown	66	41.67	2,532	38.4	60.8
30 - Royal Oak Exch/James Bay	54	34.78	1,783	33.0	51.3
31 - Royal Oak Exch/James Bay	54	34.10	2,016	37.3	59.1

----- Investigate for corrective action

----- Investigate for service improvements

Targeted Transit Routes

Targeted Transit	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				40.0	60.0
17 - Cedar Hill Sch Special		:	:	:	:
18 - Cedar Hill Sch Special		:	:	:	:
19 Hillside		:	:	:	:
29 - UVic		:	:	:	:
51 - Langford Exch/UVic		:	:	:	:
76 - Swartz Bay/UVic	3	2.00	81	27.0	40.5

----- Investigate for corrective action

----- Investigate for service improvements

Local Transit Routes

Local Transit - Urban	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				25.0	40.0
2 - Oak Bay/Willows - Downtown	65	22.50	997	15.3	44.3
3 - Gonzales/Beacon Hill	34	16.92	480	14.1	28.4
7 - UVic/Downtown	65	29.18	1,122	17.3	38.5
8 - Interurban/Oak Bay	26	15.05	508	19.5	33.8
21 - Interurban/Downtown	26	11.08	369	14.2	33.3
22 - Vic General/Hillside Mall	56	37.20	1,486	26.5	39.9
24 - Admirals Walk/Cedar Hill	21	12.70	271	12.9	21.3
25 - Admirals Walk/Maplewood	20	13.98	283	14.2	20.2
39 - Royal Roads/UVic	15	4.75		0.0	0.0
61 - Sooke/Downtown	24	14.42	437	18.2	30.3
72 - Swartz Bay/Downtown via Fifth	52	58.80	1,695	32.6	28.8
75 - Saanichton/Royal Oak/Downtown	32	22.82	644	20.1	28.2

Local Transit - Coverage	Trips Operated	Revenue Hours	Passenger Boardings	Boardings per Trip	Boardings per Revenue Hr
Target				10.0	20.0
1 - Richardson/Downtown		:	:	:	:
10 - Jubilee/Dockyard	25	10.48		0.0	0.0
12 - University Heights/UVic	30	7.00		0.0	0.0
13 - Cadboro Bay/UVic		:	:	:	:
32 - Cordova Bay	16	3.73		0.0	0.0
35 - Ridge		:	:	:	:
49 - Langford Exchange		:	:	:	:
52 - Colwood	40	20.12	160	4.0	8.0
53 - Atkins	10	3.58		0.0	0.0
54 - Metchosin	6	5.90	96	16.0	16.3
55 - Happy Valley		:	:	:	:
56 - Florence Lake	13	6.62	126	9.7	19.0
57 - Millstream	12	7.33	72	6.0	9.8
58 - Langford Meadows	14	5.07	70	5.0	13.8
59 - Triangle Mountain	6	2.90		0.0	0.0
60 - Wishart	5	2.43		0.0	0.0
63 - Otter Point		:	:	:	:
64 - East Sooke		:	:	:	:
81 - Swartz Bay/Brentwood	14	11.95		0.0	0.0
83 Sidney/Royal Oak	6	3.45		0.0	0.0
85 North Saanich		:	:	:	:
86 Deep Cove/McTavish Exch		:	:	:	:
88 Sidney/Airport	24	5.80		0.0	0.0

----- Investigate for corrective action
 Limited Samples

----- Investigate for service improvements

Appendix

Key Assumptions

Data

Ridership information used was collected from the fall of 2014 through automated passenger counters which are in place on more than 140 of the buses assigned to the Victoria Region's conventional fleet. This system counts the number of persons boarding and disembarking from a vehicle. A person may board more than one bus to complete a single trip when transfers are involved.

External Factors

In addition to service changes there are a number of external factors that may affect transit ridership. Some of these include fare increases, changing fuel prices, changing macro-economics and changes in land use.

GLOSSARY

Boardings

The number of times passengers board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination and regardless of whether they pay a fare, use a pass or transfer, ride for free, or pay in some other way. Also called unlinked passenger trips.

Peak Hours

Refers to weekday a.m. and p.m. service during commute hours to carry a maximum number of passengers. An example of commute or peak hours could be defined as time between 6:00 a.m. and 9:00 a.m. in the morning, and between 3:00 p.m. and 6:00 p.m. at night.

Revenue Service

The time when a vehicle is available to the general public and there is an expectation of carrying passengers. These passengers either directly pay fares, are subsidized by public programs, or provide payment through some contractual arrangement. Revenue service includes layover / recovery time. Revenue service excludes deadhead.