

To: Operations and Scheduling Committee

Date: September 4, 2014

From: Anne Muzzini, Director of Planning

Reviewed by:

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### **SUBJECT: Evaluation of On Time Performance**

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#### **Background**

Prior to 2012 on time performance was measured by the road supervisors at the route endpoints or BART stations. Since 2012 we have used the data collected by the Clever Devices computers on the bus. The new method measures all trips on all time points. As a result on-time performance appeared to decline although in reality service quality remained the same. For example, route #35 has seven time points in its schedule. If we look at the on-time performance at just the endpoints (Dublin BART and San Ramon Transit Center) we see 90% on time. If we look at all the time points we see 72% on-time.

#### **Mid Route On-Time Performance**

In some cases it is a good thing to run a little late to a mid-route time point. Because if the bus is early to a time point, it has to sit and wait, which irritates the passengers on board. For this reason the middle of the route is often scheduled tightly and the time between the last stop and the endpoint is scheduled loosely so that the bus arrives early or on time at the BART station (endpoint).

To build a schedule that operates 100% on time would require more recovery time mid route to allow for traffic, accidents, and wheelchair boardings that cause late buses. The Route #96 that runs from Walnut Creek BART to Bishop Ranch via Highway 680 has the most unpredictable traffic to deal and it is difficult to add recovery time at the Bishop Ranch end because it's a one way loop and there are always passengers onboard. In this case fixing on time performance by building in more recovery time will negatively affect passengers if and when the recovery isn't needed.

#### **Factors that Effect On-Time Performance**

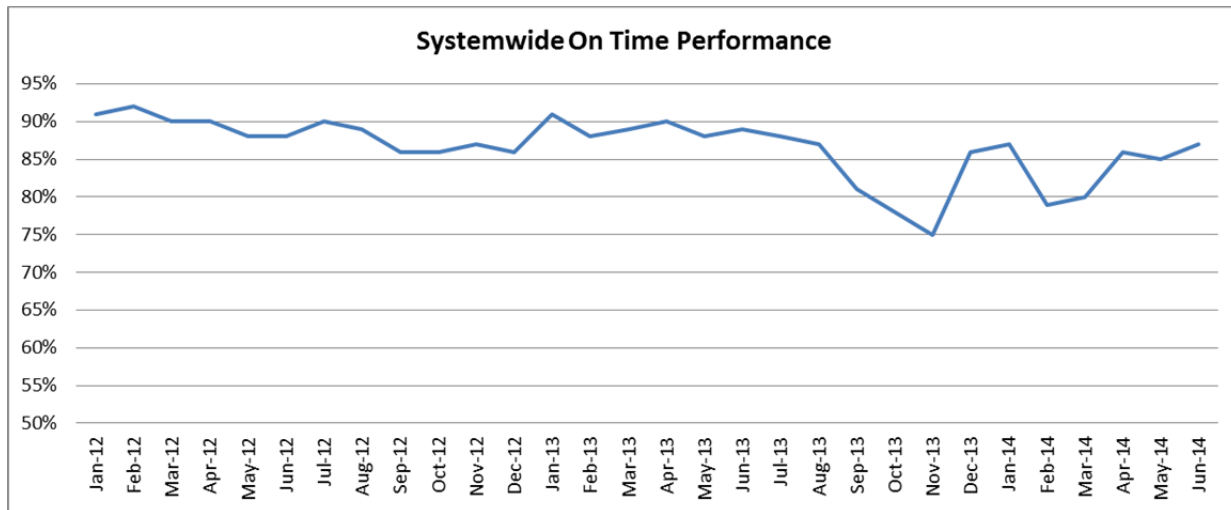
Traffic is the most obvious factor that effects on time performance. The routes most effected are routes traveling long distances in busy corridors like the 96X (WC BART to Bishop Ranch), the 93X (WC BART to Hillcrest via Ygnacio), and the #21 (WC BART to San Ramon Transit Center). In June these routes had 66%, 78%, and 79% on-time performance respectively.

Dispatch activity can effect on time performance. When drivers don't show for work, relief drivers need to be used and sometimes trips don't start on-time.

Some routes and trips have notes that direct the driver to hold for a connection to another route. For instance; the 93X holds for transferring passengers from the 96X. This makes the 93X run late; but passengers appreciate not missing their connection.

## Trend in On Time Performance

Prior to using 100% of the routes and time points on time performance was always between 90% and 100%. Since January 2012 system performance has ranged from 75% to 92%. Volatility between October and April can be attributed to the BART strike, dispatch activity, and syncing of the Clever clock. June's performance of 88% is within the range of normal. The chart and table below show on time performance trends systemwide and by route type.



## On Time Performance by Route Type – Selected Months

	Weekday	Weekend	School	Express
March 2012	90%	87%	86%	80%
October 2012	86%	85%	84%	75%
December 2012	87%	84%	83%	71%
March 2013	89%	87%	86%	79%
October 2013	78%	64%	77%	65%
March 2014	81%	80%	73%	68%
June 2014	88%	82%	82%	76%

## Recommendation

Staff recommends that the Board accept the analysis of on time performance and support the continuation of measurement using 100% of the time points for all routes because it provides the most detailed information. Staff will continue to monitor on time performance and make schedule changes to improve performance. Routes that are candidates for additional running time and that will be addressed in the winter bid include weekend routes #315, 320, and 321. In addition, planning staff will continue to work with Bishop Ranch to make schedule and routing adjustments to improve on time performance.

# On Time Report for 6/1/2014 through 6/30/2014

Current date 7/10/2014 10:46:26 AM

All Weekday Routes (no 600)				Weekend Routes				Express Routes			
	On Time	Late	% On Time		On Time	Late	% On Time		On Time	Late	% On Time
Route1	3096	113	96%	Route301	385	21	95%	Route92	918	144	86%
Route2	1299	321	80%	Route310	940	238	80%	Route93	867	248	78%
Route4	4669	11	100%	Route311	792	148	84%	Route95	703	139	83%
Route5	1468	304	83%	Route314	1461	272	84%	Route96	4294	2177	66%
Route6	4304	260	94%	Route315	510	167	75%	Route97	2214	500	82%
Route7	3479	112	97%	Route316	1135	108	91%	Route98	2386	372	87%
Route9	4755	629	88%	Route320	520	145	78%		11382	3580	
Route10	8180	856	91%	Route321	962	380	72%			14962	<b>76%</b>
Route11	2392	202	92%		6705	1479					
Route14	3576	220	94%			8184	<b>82%</b>				
Route15	4305	680	86%								
Route16	5229	423	93%								
Route17	2489	242	91%	<b>School Routes</b>							
Route18	3684	251	94%		<b>On Time</b>	<b>Late</b>	<b>% On Time</b>				
Route19	1281	146	90%	Route601	132	6	96%				
Route20	4133	439	90%	Route602	140	23	86%				
Route21	5543	1433	79%	Route603	63	24	72%				
Route25	1233	289	81%	Route605	119	0	100%				
Route28	3831	479	89%	Route606	553	143	79%				
Route35	3536	718	83%	Route608	37	1	97%				
Route36	2425	331	88%	Route609	27	5	84%				
Route91	646	47	93%	Route610	50	4	93%				
Route92	918	144	86%	Route611	34	29	54%				
Route93	867	248	78%	Route612	58	32	64%				
Route95	703	139	83%	Route613	17	3	85%				
Route96	4294	2177	66%	Route614	76	4	95%				
Route97	2214	500	82%	Route615	32	4	89%				
Route98	2386	372	87%	Route616	53	11	83%				
	86935	12086		Route619	12	3	80%				
		99021	<b>88%</b>	Route622	24	8	75%				
				Route623	48	29	62%				
				Route625	61	25	71%				
				Route626	93	26	78%				
				Route627	61	3	95%				
				Route635	20	1	95%				
				Route636	47	19	71%				
				Route649	113	7	94%				
					1870	410					
						2280	<b>82%</b>				