Quarterly Service Performance Review
Second Quarter, FY 2017
October - December, 2016
Operations & Safety Committee
February 9, 2017
<table>
<thead>
<tr>
<th>PERFORMANCE INDICATORS</th>
<th>CURRENT QUARTER</th>
<th>PRIOR QTR ACTUALS</th>
<th>YEAR TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACTUAL</td>
<td>STANDARD</td>
<td>STATUS</td>
</tr>
<tr>
<td>Average Ridership - Weekday</td>
<td>425,944</td>
<td>444,589</td>
<td>NOT met</td>
</tr>
<tr>
<td>Customers on Time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak</td>
<td>87.53%</td>
<td>95.00%</td>
<td>NOT met</td>
</tr>
<tr>
<td>Daily</td>
<td>90.09%</td>
<td>95.00%</td>
<td>NOT met</td>
</tr>
<tr>
<td>Trains on Time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak</td>
<td>82.28%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Daily</td>
<td>84.66%</td>
<td>92.00%</td>
<td>NOT met</td>
</tr>
<tr>
<td>Peak Period Transbay Car Throughput</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM Peak</td>
<td>98.57%</td>
<td>97.50%</td>
<td>MET</td>
</tr>
<tr>
<td>PM Peak</td>
<td>99.16%</td>
<td>97.50%</td>
<td>MET</td>
</tr>
<tr>
<td>Car Availability at 4 AM (0400)</td>
<td>592</td>
<td>595</td>
<td>MET</td>
</tr>
<tr>
<td>Mean Time Between Service Delays</td>
<td>5,322</td>
<td>4,000</td>
<td>MET</td>
</tr>
<tr>
<td>Elevators in Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station</td>
<td>98.23%</td>
<td>98.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Garage</td>
<td>95.63%</td>
<td>98.00%</td>
<td>NOT met</td>
</tr>
<tr>
<td>Escalators in Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td>92.27%</td>
<td>95.00%</td>
<td>NOT met</td>
</tr>
<tr>
<td>Platform</td>
<td>96.83%</td>
<td>96.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Automatic Fare Collection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gates</td>
<td>99.07%</td>
<td>99.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Vendors</td>
<td>95.68%</td>
<td>95.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Wayside Train Control System</td>
<td>1.92</td>
<td>1.00</td>
<td>NOT met</td>
</tr>
<tr>
<td>Computer Control System</td>
<td>0.157</td>
<td>0.08</td>
<td>NOT met</td>
</tr>
<tr>
<td>Traction Power</td>
<td>0.46</td>
<td>0.20</td>
<td>NOT met</td>
</tr>
<tr>
<td>Track</td>
<td>0.13</td>
<td>0.30</td>
<td>MET</td>
</tr>
<tr>
<td>Transportation</td>
<td>0.42</td>
<td>0.50</td>
<td>MET</td>
</tr>
<tr>
<td>Environment Outside Stations</td>
<td>2.75</td>
<td>2.80</td>
<td>NOT met</td>
</tr>
<tr>
<td>Environment Inside Stations</td>
<td>2.63</td>
<td>3.00</td>
<td>NOT met</td>
</tr>
<tr>
<td>Station Vandalism</td>
<td>2.98</td>
<td>3.19</td>
<td>NOT met</td>
</tr>
<tr>
<td>Station Services</td>
<td>2.88</td>
<td>3.06</td>
<td>NOT met</td>
</tr>
<tr>
<td>Train P.A. Announcements</td>
<td>3.10</td>
<td>3.17</td>
<td>NOT met</td>
</tr>
<tr>
<td>Train Exterior Appearance</td>
<td>2.83</td>
<td>3.00</td>
<td>NOT met</td>
</tr>
<tr>
<td>Train Interior Appearance</td>
<td>2.89</td>
<td>3.00</td>
<td>NOT met</td>
</tr>
<tr>
<td>Train Temperature</td>
<td>3.11</td>
<td>3.12</td>
<td>NOT met</td>
</tr>
<tr>
<td>Customer Complaints</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complaints per 100,000 Passenger Trips</td>
<td>6.53</td>
<td>5.07</td>
<td>NOT met</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station Incidents/Million Patrons</td>
<td>2.11</td>
<td>5.50</td>
<td>MET</td>
</tr>
<tr>
<td>Vehicle Incidents/Million Patrons</td>
<td>0.26</td>
<td>1.30</td>
<td>MET</td>
</tr>
<tr>
<td>Lost Time Injuries/Illnesses/Per OSHA</td>
<td>6.56</td>
<td>7.50</td>
<td>MET</td>
</tr>
<tr>
<td>OSHA-Recordable Injuries/Illnesses/Per OSHA</td>
<td>10.80</td>
<td>13.30</td>
<td>MET</td>
</tr>
<tr>
<td>Unscheduled Door Openings/Million Car Miles</td>
<td>0.110</td>
<td>0.300</td>
<td>MET</td>
</tr>
<tr>
<td>Rule Violations Summary/Million Car Miles</td>
<td>0.110</td>
<td>0.500</td>
<td>MET</td>
</tr>
<tr>
<td>Police</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BART Police Presence</td>
<td>0.11</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Quality of Life per million riders</td>
<td>60.08</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Crimes Against Persons per million riders</td>
<td>2.24</td>
<td>2.00</td>
<td>NOT met</td>
</tr>
<tr>
<td>Auto Theft and Burglaries per 1,000 parking spaces</td>
<td>6.89</td>
<td>8.00</td>
<td>MET</td>
</tr>
<tr>
<td>Police Response Time per Emergency Incident (Minutes)</td>
<td>6.29</td>
<td>5.00</td>
<td>NOT met</td>
</tr>
<tr>
<td>Bike Thefts (Quarterly Total and YTD Quarterly Average)</td>
<td>109</td>
<td>150.00</td>
<td>MET</td>
</tr>
</tbody>
</table>

**LEGEND:**
- Goal met
- Goal not met but within 5%
- Goal not met by more than 5%
FY17 Second Quarter Overview

✓ Ridership declined; down 2.7% overall
✓ Peak period ridership not declining
✓ Train service reliability declined
✓ Equipment Reliability: Car, Track and Transportation met; Traction Power, Train Control and Computer Control System not met
✓ Equipment Availability: Platform Escalators, Station Elevators, Fare Gates, Ticket Machines met; Street Escalators, Garage Elevators and Cars not met
✓ Passenger Environment: 2 of 4 Station indicators improved, none met goal; 2 of 4 Train indicators improved, none met goal
✓ Complaints decreased
Total ridership decreased by 2.7% compared to same quarter last year
Average weekday ridership (425,944) down 1.3% from same quarter last year
Core weekday ridership down by 1.0% from same quarter last year
SFO Extension weekday ridership down by 2.9% from same quarter last year
Average peak ridership during the period was up slightly (0.26%) compared to the same quarter last year.
During Q2 there were two Top 10 Ridership Days:
  • 11/3/2016 – 464,224 – Warriors vs. Oklahoma City (#10)
Saturday and Sunday down by 7.1% and 2.2%, respectively, over same quarter last year
On-Time Service - Customer

✓ 90.1%, 95.00% goal not met, down 1.9%
✓ Delay events causing the most late trains:

<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Location</th>
<th>Event Details</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>03-Nov-16</td>
<td>Daly City</td>
<td>Net.com (Field Comm Link)</td>
<td>Equip</td>
</tr>
<tr>
<td>2</td>
<td>20-Oct-16</td>
<td>Lake Merritt</td>
<td>MU (False Occupancy)</td>
<td>Equip</td>
</tr>
<tr>
<td>3</td>
<td>14-Oct-16</td>
<td>Daly City</td>
<td>PG &amp; E Power Outage</td>
<td>Utilities</td>
</tr>
<tr>
<td>4</td>
<td>19-Oct-16</td>
<td>Emb. L-Lock</td>
<td>Routing (Switch)</td>
<td>Equip</td>
</tr>
<tr>
<td>5</td>
<td>15-Oct-16</td>
<td>Civic Center</td>
<td>Person On Trackway (Person Refuses to Leave Wayside)</td>
<td>People</td>
</tr>
<tr>
<td>6</td>
<td>29-Nov-16</td>
<td>24th St. L-Lk</td>
<td>Routing (Switch)</td>
<td>Equip</td>
</tr>
<tr>
<td>7</td>
<td>16-Dec-16</td>
<td>B.F. Merge L-Lk</td>
<td>Routing (Switch) (Broken Spring) (0520-0932)</td>
<td>Equip</td>
</tr>
<tr>
<td>8</td>
<td>13-Dec-16</td>
<td>T-Bay Tube</td>
<td>Brake (Smoke Odor) (Circuit Breaker Tripped)</td>
<td>Vehicle</td>
</tr>
<tr>
<td>9</td>
<td>15-Dec-16</td>
<td>Systemwide</td>
<td>Weather (Heavy Rain) (Reduced Speed) (0700-2400)</td>
<td>Weather</td>
</tr>
<tr>
<td>10</td>
<td>10-Dec-16</td>
<td>Balboa Park</td>
<td>3rd Rail Power (Repeating Sectional Trip) (1318-1709)</td>
<td>Equip</td>
</tr>
</tbody>
</table>
On-Time Service - Train

84.7%, 92.00% goal not met; down 3.8%
8,555 Late trains at End-of-Line

1. *Multiple small delays (each under 5 min) 47.7% of delayed trains
2. Other Miscellaneous (multiple cause, object on track, passenger transfers, person struck) 15.4% of delayed trains
3. Train Control 9.9% of delayed trains
4. BPD 8.4% of delayed trains
5. Revenue Vehicle 4.3% of delayed trains
6. Wayside Maintenance Work 3.2% of delayed trains
7. Vandalism 2.6% of delayed trains
8. Traction Power 2.3% of delayed trains
9. Operations 2.2% of delayed trains
10. Sick Passenger 1.8% of delayed trains

*new category, not previously included
Wayside Train Control System

**Results**

1.92, 1.00 goal not met

- Working with Alstom to remedy Switch Motor Controller failure in new switches.
- Biggest Train Control caused delay (86 late trains) due to aged cable insulation on track circuit receiver coil, system wide replacement project underway.

**Includes False Occupancy & Routing, Delays Per 100 Train Runs**
Computer Control System

Includes ICS computer & SORS, Delays per 100 train runs

Goal not met due to one incident in December
Local software glitch required engineering support
Multiple third rail coverboard pin failures throughout quarter identified as pin fatigue; caused by high winds, high speed train vibration. Installing metal collars on pins to mitigate.

Debris fire; damage to expansion joint cables at Montgomery repairs completed.

Planning underway to move third rail expansion joints out of the platform area and to make them cableless.
SERVICE: How are we doing?  ✔ Transportation

Includes Late Dispatches, Controller-Train Operator-Tower Procedures and Other Operational Delays Per 100 Train Runs

✔ Goal met
SERVICEx How are we doing? Track

Includes Rail, Track Tie, Misalignment, Switch, Delays Per 100 Train Runs

Goal met
Goal met – MTBSD 5,322 hours
Goal not met – 592 Actual vs. 595 Required
Fleet car availability requirement went up to 595 in fall.
Rains causing wheel flats impacted mostly the Concord fleet. Due to Concord not having a wheel truing machine, Concord cars were queued up in Hayward for wheel cutting or axle changes.
Elevator Availability - Stations

- Goal met
- Blue line measures availability including planned project work (doors and floors)
Goal 98% not met, attained 95.63%, a drop of 1.97% from last quarter
Pleasant Hill and San Bruno were worst performers, San Bruno due to water intrusion which damaged the elevator controller
Goal 95%, actual 92.27%, slight improvement.
- Escalator electrical shorts due to water intrusion from the rain continue to outpace resources.
- Major repairs at Civic Center and 16th Street.
☑ Escalator Availability - Platform

- Goal met and performance improved
- Relocated department and bid reworked to improve efficiency
- Five (5) Trainee’s completed CCCM Program & awaiting State Certification
- Attempt to contract repairs when failures outpace resources, contractor availability limited
AFC Gate Availability

✓ Goal met
✓ Working to resolve problem with Gate Aisle Sensor on Asset Refresh
AFC Vendor Availability

Goal exceeded, 95.90%
✓ Add Fare Availability – 98.35%
✓ Add Fare Parking Availability – 98.87%
✓ Parking Validation Machines Availability – 99.99%
Environment - Outside Stations

Composite rating of:
- Walkways & Entry Plaza Cleanliness (50%)  2.65↑
- BART Parking Lot Cleanliness (25%)           2.96
- Appearance of BART Landscaping (25%)     2.72↑

- Goal not met but improved performance (Walkways/Entry Plaza and Landscaping)
- Cleanliness ratings of either Excellent or Good:
  - Walkways/Entry Plazas:  61.7%
  - Parking Lots:  77.2%
  - Landscaping Appearance:  65.2%

↑ indicates a statistically significant increase over the prior quarter

Ratings guide:
4 = Excellent
3 = Good
2.80 = Goal
2 = Only Fair
1 = Poor
Environment - Inside Stations

Ratings guide:
- 4 = Excellent
- 3 = Good
- 3.00 = Goal
- 2 = Only Fair
- 1 = Poor

Goal not met, slight improvement on M/W Line

Cleanliness ratings of either Excellent or Good:
- Station Platform: 68.6%
- Other Station Areas: 58.1%
- Restrooms: 38.8%
- Elevators: 46.6%
**Station Vandalism**

- Goal not met, slight improvement
- 76.5% of those surveyed ranked this category as either Excellent or Good

**Ratings guide:**
- 4 = Excellent
- 3.19 = Goal
- 3 = Good
- 2 = Only Fair
- 1 = Poor
SERVICE: How are we doing?  

Station Services

Composite rating of:
- Station Agent Availability (65%) 2.85
- Brochures Availability (35%) 2.92

✓ Goal not met, lower rating in both areas
✓ Availability ratings of either Excellent or Good:
  - Station Agents: 71.6%
  - Brochures: 74.0%

↓ indicates a statistically significant decrease from the prior quarter
Train P.A. Announcements

Goal not met but slight improvement for all three types

Announcement ratings of either Excellent or Good:
- Arrivals: 77.8%
- Transfers: 76.6%
- Destinations: 83.7%

Composite rating of:
- P.A. Arrival Announcements (33%) 3.07
- P.A. Transfer Announcements (33%) 3.03
- P.A. Destination Announcements (33%) 3.20

Ratings guide:
- 4 = Excellent
- 3.17 = Goal
- 3 = Good
- 2 = Only Fair
- 1 = Poor
Train Exterior Appearance

Goal not met

73.0% of those surveyed ranked this category as either Excellent or Good
Train Interior Cleanliness

Composite rating of:

- Train interior cleanliness (60%) 2.61↓
- Train interior kept free of graffiti (40%) 3.30↓

Goal not met
Making adjustments to better balance work program
Train Interior ratings of either Excellent or Good:
- Train Interior Cleanliness: 59.5%
- Graffiti-free: 90.1%

↓ indicates a statistically significant decrease from the prior quarter
Train Temperature

Goal: Comfortable Temperature Onboard Train

- Goal not met but slight improvement
- 84.1% of those surveyed ranked this category as either Excellent or Good

Ratings guide:
- 4 = Excellent
- 3.12 = Goal
- 3 = Good
- 2 = Only Fair
- 1 = Poor
✓ 6.53 complaints/100,000 riders, goal 5.07/100,000 riders
✓ Total complaints decreased 366 (15.3%) from last quarter
✓ All categories improved except Announcements, Passenger Information, and Train Cleanliness.
✓ A new category, “Quality of Life” was instituted to capture complaints related to non-criminal matters but formerly logged under BPD.
✓ “Compliments” dropped to 86, down from 116
Patron Safety:
Station Incidents per Million Patrons

Goal met
Patron Safety
Vehicle Incidents per Million Patrons

Goal met
Employee Safety:
Lost Time Injuries/Illnesses per OSHA Incidence Rate

Goal met
Employee Safety:
OSHA-Recordable Injuries/Illnesses per OSHA Incidence Rate

✓ Goal met
Operating Safety:
Unscheduled Door Openings per Million Car Miles

✓ Goal met
Operating Safety:
Rule Violations per Million Car Miles

☑  Goal met
Starting FY17 Q2, the way BART Police Presence is measured was changed. The new questions are:

- Did you see BART Police on the Train? (Yes, No, Don’t Know)
- Did you see BART Police Outside the Station? (Yes, No, Don’t Know)
- Did you see BART Police in the Station? (Yes, No, Don’t Know)

Overall Police Presence is also reported as are results for after 7:00 PM. Goals will be set after approximately a year of using the new measures.

<table>
<thead>
<tr>
<th>BART Police Presence</th>
<th>Avg. 10.9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rider saw Police on train</td>
<td>5.6%</td>
</tr>
<tr>
<td>Rider saw Police outside the station</td>
<td>16.3%</td>
</tr>
<tr>
<td>Rider saw Police in the station</td>
<td>11.1%</td>
</tr>
<tr>
<td>Rider saw Police on train after 7:00PM</td>
<td>4.8%</td>
</tr>
<tr>
<td>Rider saw Police outside the station after 7:00PM</td>
<td>16.0%</td>
</tr>
<tr>
<td>Rider Saw Police in the station after 7:00PM</td>
<td>11.4%</td>
</tr>
</tbody>
</table>
Quality of Life incidents are up from the last quarter and down from the corresponding quarter of the prior fiscal year.

*Quality of Life Violations include: Disturbing the Peace, Vagrancy, Public Urination, Fare Evasion, Loud Music/Radios, Smoking, Eating/Drinking and Expectoration
Crimes Against Persons
(Homicide, Rape, Robbery, and Aggravated Assault)

✓ Goal not met
✓ Crimes against persons are up from the last quarter, and up from the corresponding quarter of the prior fiscal year.
Goal met

The number of incidents per thousand parking spaces are up from last quarter and down from the corresponding quarter from the prior fiscal year.
The average Emergency Response Time goal was not met for the quarter.
✓ Goal met

✓ 109 bike thefts for current quarter, down 54 from last quarter and down 92 from the corresponding quarter of the prior fiscal year.

* The penal code for grand theft value changed in 2011. The software was updated, which resulted in a change of bicycle theft statistics effective FY12-Q3.