Quarterly Service Performance Review
First Quarter, FY 2018
July - September, 2017

Operations & Safety Committee
December 7, 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>419,978</td>
<td>428,268</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Customers on Time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak</td>
<td>86.95%</td>
<td>95.00%</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Daily</td>
<td>90.04%</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>79.68%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Daily</td>
<td>83.14%</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>96.68%</td>
<td>97.50%</td>
<td>NOT MET</td>
</tr>
<tr>
<td>PM Peak</td>
<td>95.38%</td>
<td>97.50%</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Car Availability at 4 AM (0400)</td>
<td>573</td>
<td>595</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Mean Time Between Service Delays</td>
<td>3,810</td>
<td>4,000</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Elevators in Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station</td>
<td>98.10%</td>
<td>98.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Garage</td>
<td>96.40%</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>92.10%</td>
<td>95.00%</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Platform</td>
<td>96.50%</td>
<td>96.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Automatic Fare Collection</td>
<td>99.51%</td>
<td>99.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Vendors</td>
<td>95.79%</td>
<td>95.00%</td>
<td>MET</td>
</tr>
<tr>
<td>Wayside Train Control System</td>
<td>2.00</td>
<td>1.00</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Computer Control System</td>
<td>0.06</td>
<td>0.08</td>
<td>MET</td>
</tr>
<tr>
<td>Traction Power</td>
<td>0.12</td>
<td>0.20</td>
<td>MET</td>
</tr>
<tr>
<td>Track</td>
<td>0.13</td>
<td>0.30</td>
<td>MET</td>
</tr>
<tr>
<td>Transportation</td>
<td>0.69</td>
<td>0.50</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Environment Outside Stations</td>
<td>2.62</td>
<td>2.80</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Environment Inside Stations</td>
<td>2.52</td>
<td>3.00</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Station Vandalism</td>
<td>2.90</td>
<td>3.19</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Station Services</td>
<td>2.86</td>
<td>3.06</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Train P.A. Announcements</td>
<td>3.06</td>
<td>3.17</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Train Exterior Appearance</td>
<td>2.78</td>
<td>3.00</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Train Interior Appearance</td>
<td>2.85</td>
<td>3.00</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Train Temperature</td>
<td>3.06</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>7.74</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>1.56</td>
<td>5.50</td>
<td>MET</td>
</tr>
<tr>
<td>Vehicle Incidents/Million Patrons</td>
<td>0.62</td>
<td>1.30</td>
<td>MET</td>
</tr>
<tr>
<td>Lost Time Injuries/Illnesses/Per OSHA</td>
<td>7.24</td>
<td>7.50</td>
<td>MET</td>
</tr>
<tr>
<td>Unscheduled Door Openings/Million Car Miles</td>
<td>0.050</td>
<td>0.300</td>
<td>MET</td>
</tr>
<tr>
<td>Rule Violations Summary/Million Car Miles</td>
<td>0.150</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>11%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Quality of Life per million riders</td>
<td>99.45</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Crimes Against Persons per million riders</td>
<td>3.15</td>
<td>2.00</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Auto Burglaries per 1,000 parking spaces</td>
<td>6.26</td>
<td>8.00</td>
<td>MET</td>
</tr>
<tr>
<td>Auto Thefts per 1,000 parking spaces</td>
<td>2.04</td>
<td>6.00</td>
<td>MET</td>
</tr>
<tr>
<td>Police Response Time per Emergency Incident (Minutes)</td>
<td>5.30</td>
<td>5.00</td>
<td>NOT MET</td>
</tr>
<tr>
<td>Bike Thefts (Quarterly Total and YTD Quarterly Average)</td>
<td>125</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%**
FY18 First Quarter Overview

✓ Ridership down 2-3%, 2.4% below budget
✓ Train service reliability improved again, focus area for Ops and BPD
✓ Equipment Reliability: Traction Power, Track, and Computer Control System met; Train Control and Cars not met
✓ Equipment Availability: Platform Escalators, Fare Gates, Ticket Machines, and Station Elevators met; Street Escalators, Garage Elevators and Cars not met
✓ Passenger Environment: Train Interior Cleanliness improved very slightly, the other 7 train or station customer ratings were down including several substantial drops (Station Interior/Exterior Cleanliness)
✓ Complaints decreased 13.7%
✓ Total ridership 2.4% below budget
✓ Average weekday ridership (419,978) down by 2.8% from same quarter last year
✓ Core weekday ridership down by 2.7% from same quarter last year
✓ SFO Extension weekday ridership down by 3.6% from same quarter last year
✓ Average peak ridership down by 1.5% compared to same quarter last year
✓ Saturday and Sunday down by 2.2% and 3.1%, respectively, from same quarter last year
On-Time Service - Customer

✓ 90.04%, up 2.4% from prior quarter, below goal
✓ Delay events causing the most late trains:

<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Location</th>
<th>Event Description</th>
<th>Category</th>
<th>Severity</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3-Jul-17 Balboa Park</td>
<td>Object Struck MUX Equipment(Cable Tray Damaged/Loss of Power)(0442-EOR)</td>
<td>Object on Track</td>
<td>60%</td>
<td>407</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>28-Aug-17 D.C. I-Lock</td>
<td>False Occupancy (Cranks Installed)(0405-2200)</td>
<td>Wayside Equip</td>
<td>70%</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>24-Aug-17 Bay Fair</td>
<td>Person Under Train(1440-1911)</td>
<td>Misc/People</td>
<td>80%</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1-Sep-17 Systemwide</td>
<td>Weather (Heat)(1332-1900)</td>
<td>Weather</td>
<td>90%</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>30-Aug-17 Powell</td>
<td>BPD Hold (Suspicious Package)(1340-1825)</td>
<td>BPD</td>
<td>100%</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>27-Sep-17 Coliseum</td>
<td>Animal On Trackway (0749-1006)</td>
<td>Object on Track</td>
<td>110%</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>21-Aug-17 Dublin I-lock</td>
<td>Speed Code (L18-L20)(0420-2240)</td>
<td>Wayside Equip</td>
<td>120%</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>14-Aug-17 Rich. Yd.</td>
<td>MUX(False Occupancy &amp; Routing Issues)(0714-1509)</td>
<td>Wayside Equip</td>
<td>130%</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>21-Aug-17 16th Street</td>
<td>Aux. Electric (Inverter)( Would Not Move in ATO)(1704-1909)</td>
<td>Vehicle*</td>
<td>140%</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>22-Sep-17 W &amp; M-Lines</td>
<td>PG&amp;E Power Outage(34.5 VAC Power Loss)(1723-2035)</td>
<td>PG&amp;E</td>
<td>150%</td>
<td>67</td>
<td></td>
</tr>
</tbody>
</table>

*Pending further investigation
83.1%, up 3.4% from prior quarter, goal not met
43.1% of late trains were late due to multiple small delays, each under 5 minutes
Categorization of late trains due to a known delay event of 5 minutes or greater:

1. POLICE ACTIONS 17.4% of delayed trains
2. TRAIN CONTROL 16.9% of delayed trains
3. OBJECT ON TRACKWAY 10.5% of delayed trains
4. RAIL CAR 9.0% of delayed trains
5. MULTIPLE CAUSE 8.2% of delayed trains
Goal not met – Actual 2.0 / Goal 1.00

- Restructured staffing to focus on Preventative Maintenance
- PM group increased from 16 to 34 FTE, increasing PM completeness and accuracy
- Updating PM procedures to increase effectiveness and ensure compliance
- Installed 40+ TX Loops and RX Coils in core system to increase reliability
- Added 3 new TC engineers to maintenance group to focus on tough problems
Computer Control System

Includes ICS computer & SORS, Delays per 100 train runs

✓ Goal met
Traction Power

Includes Coverboards, Insulators, Third Rail Trips, Substations, Delays Per 100 Train Runs

✓ Goal Met
✓ Replaced 640’ of 3rd rail and coverboard on lower A-Line to reduce coverboard caused delays.
Transportation

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

✓ Goal not met – Actual .69 / Goal .5
✓ T.O. staffing affected by increased training for FOTF and testing commitments for SVBX.
✓ Slight upward trend in procedural errors being addressed.
Track

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

☑ Goal met
Goal not met – MTBSD 3,810 hours / Goal 4,000 hours

- Continuing root cause failure analysis by Vehicle Engineering, selective component replacement / mods and procedural improvements
- Turnover of key personnel (Supt, Shop Engineers, and Vehicle Trouble Desk)
- Managing transition to FOTF
Goal not met – 575 Actual vs. 595 Required

With a very aggressive availability target (89%), availability impacted by small perturbations; in this case Hayward Shop construction and periods of hot weather.
Elevator Availability - Stations

✓ 98% goal exceeded
✓ 98% goal, actual 96.4%
✓ Controller failures and vandalism (broken glass) negatively impacted results
Escalator Availability - Street

- 95% goal, 92% actual
- Substantial improvement
- Four extensive heavy repairs, 3 of the 4 were due to O&K Bull-Gears
Goal met, improved performance

✓ Long term Civic Center outage, should be back in service by 11/30/17
AFC Gate Availability

✓ 99% goal exceeded
Goal met, improved performance
✓ Add Fare Availability – 98.7%
✓ Parking Validation Machines Availability – 99.9%
Environment - Outside Stations

Composite rating of:
- Walkways & Entry Plaza Cleanliness (50%) 2.50 ↓
- BART Parking Lot Cleanliness (25%) 2.85 ↓
- Appearance of BART Landscaping (25%) 2.62 ↓

✓ Goal not met Cleanliness ratings of either Excellent or Good:
  - Walkways/Entry Plazas: 54.3%
  - Parking Lots: 71.4%
  - Landscaping Appearance: 59.8%

✓ Filling vacancies
✓ Clearing three large homeless encampments and completing 20 miles of fire breaks was a significant diversion of labor resources.

Note: ↓ indicates a statistically significant decrease from the prior quarter
Environment - Inside Stations

- Goal not met
- Cleanliness ratings of either Excellent or Good:
  - Station Platform: 62.4%  Other Station Areas: 53.2%
  - Restrooms: 32.9%  Elevators: 43.8%
- Moved to M&E end of July, grievance filed, discussions on-going, may go to arbitration
- 20 vacancies in process of being filled, training program will be developed, dedicated management structure with more reasonable spans of control, developing cleaning SOPs, upgrading equipment, development of KPI’s

\(^1\) indicates a statistically significant decrease from the prior quarter
Station Vandalism

✓ Goal not met
✓ 74.1% of those surveyed ranked this category as either Excellent or Good
✓ Holding contractor accountable; expedited in-house response to offensive graffiti
Station Services

Composite rating of:
- Station Agent Availability (65%) 2.82
- Brochures Availability (35%) 2.93

✓ Goal not met
✓ Availability ratings of either Excellent or Good:
  - Station Agents: 69.9%
  - Brochures: 74.9%

Ratings guide:
4 = Excellent
3.06 = Goal
3 = Good
2 = Only Fair
1 = Poor
Train P.A. Announcements

Comprehensive rating of:
- P.A. Arrival Announcements (33%) 3.03
- P.A. Transfer Announcements (33%) 3.00
- P.A. Destination Announcements (33%) 3.16

✓ Goal not met
✓ Announcement ratings of either Excellent or Good:
  Arrivals: 76.8%
  Transfers: 76.0%
  Destinations: 82.4%
✓ Internal compliance checks show substantially better results
✓ Goal not met
✓ 69.7% of those surveyed ranked this category as either Excellent or Good
Train Interior Cleanliness

Composite rating of:
- Train interior cleanliness (60%) 2.57
- Train interior kept free of graffiti (40%) 3.27

✓ Goal not met
✓ Train Interior ratings of either Excellent or Good:
  - Train Interior Cleanliness: 56.1%; Graffiti-free: 89.5%
✓ Recent progress in filling vacancies should help
Train Temperature

✓ Goal not met
✓ 79.9% of those surveyed rated this category as either Excellent or Good
✓ On-going A/B HVAC upgrade 50% complete
✓ C car HVAC mod has helped
✓ Record high temperatures
Total complaints lodged this period decreased 380 (13.7%) from last quarter, up 4 (.01%) when compared with the first quarter FY17.

Complaint numbers increased in the categories M&E, Trains, Station Cleanliness, and Quality of Life. Complaint decreases are seen in AFC, Announcements, Bike Program, Parking, Personnel, Police Services, Policies, Service, Train Cleanliness, and Passenger Information.

Compliments” are down at 96 from 127 last quarter (one year ago these numbered 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
OPERATIONS
SERVICE: How are we doing?  
✔ Operating Safety:
Rule Violations per Million Car Miles

✓ Goal met
BART Police Presence

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)

Results are reported for all revenue hours and 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>FY 17 Q2</th>
<th>FY17 Q3</th>
<th>FY 17 Q4</th>
<th>FY18 Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rider saw Police on train</td>
<td>5.6%</td>
<td>5.6%</td>
<td>4.7%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Rider saw Police outside the station</td>
<td>16.3%</td>
<td>15.6%</td>
<td>13.8%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Rider saw Police in the station</td>
<td>11.1%</td>
<td>9.6%</td>
<td>9.7%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Rider saw Police on train after 7:00PM</td>
<td>4.8%</td>
<td>3.8%</td>
<td>4.9%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Rider saw Police outside the station aft 7:00PM</td>
<td>16.0%</td>
<td>13.5%</td>
<td>16.6%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Rider Saw Police in the station after 7:00PM</td>
<td>11.4%</td>
<td>9.7%</td>
<td>12.9%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>
Quality of Life incidents are down from the last quarter and up 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 are down from the last quarter and up from the corresponding quarter of the prior fiscal year.
The number of incidents per thousand parking spaces are up from last quarter and up the corresponding quarter from the prior fiscal year.
✓ Goal met

✓ The number of incidents per thousand parking spaces are down from last quarter and down the corresponding quarter from the prior fiscal year.
The average Emergency Response Time goal was not met for the quarter.
✓ Goal met
✓ 125 bike thefts for current quarter, down 4 from last quarter.