Quarterly Service Performance Review
Third Quarter, FY 2016
January - March, 2016

Engineering & Operations Committee
May 26, 2016
FY16 Third Quarter Overview...

✓ Boosted by Super Bowl 50, ridership increased with all time monthly weekday average record in February (446,650)

✓ March propulsion failure problems between North Concord and Pittsburg/Bay Point significantly impacted On-Time Performance

✓ Reliability: Car and Track met; Transportation, Train Control, Computer Control System and Traction Power not met

✓ Availability: Car, Fare Gates and Vendors, Station Elevators met; Escalators and Garage Elevators not met.

✓ Passenger Environment indicators: only Train Temperature met; 3 improved, 5 worse

✓ Complaints up in all categories
Average weekday ridership (433,585) up 3.6% from same quarter last year
  • Core up 3.3%, SFO Extension up 5.4%
  • February was the highest ever (446,650) due to Super Bowl 50 festivities
✓ Saturday and Sunday up by 4.0% and down by 1.1%, respectively, over same quarter last year
  • #1 Saturday ridership (419,161) on 2/6/16 due to Super Bowl 50 festivities, Warriors game and Metallica concert
✓ Total trips for the quarter 1.3% above budget, year to date 0.2% below budget
On-Time Service - Customer

✓ 90.45%, 95.00% goal not met, down 0.40%
✓ Biggest delay events of the quarter:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAN 06</td>
<td>Balboa Park</td>
<td>MUX (False Occupancy)</td>
<td>170</td>
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<tr>
<td>JAN 19</td>
<td>N. Berkeley</td>
<td>Train Struck Person On Trackway</td>
<td>127</td>
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<tr>
<td>MAR 18</td>
<td>T-Bay Tube</td>
<td>Track (Defective Rail)</td>
<td>107</td>
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<td>MAR 07</td>
<td>24th Street</td>
<td>Atten. Console (EM Stop)</td>
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<td>MAR 16</td>
<td>C-Line</td>
<td>3rd Rail Power (Power Surge)</td>
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<tr>
<td>JAN 05</td>
<td>Balboa Park</td>
<td>MUX (False Occupancy)</td>
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<tr>
<td>JAN 19</td>
<td>Montgomery</td>
<td>False Occupancy</td>
<td>65</td>
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<tr>
<td>FEB 19</td>
<td>19th St. I-Lk</td>
<td>Routing (Switch)</td>
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<tr>
<td>MAR 28</td>
<td>D.C. Turnbck</td>
<td>T.O. Procedure (Manual Movement)</td>
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<tr>
<td>JAN 14</td>
<td>Civic Center</td>
<td>Person On Trackway</td>
<td>57</td>
</tr>
</tbody>
</table>
On-Time Service - Train

✓ 85.50%, 92.00% goal not met; down 1.25%

Late trains by category: 6055 Total Late Trains
1. Other: Miscellaneous (patron loading, passenger transfer, congestion, multi-cause delay, person on trackway, weather) 1,616 late trains 26.7%
2. Train Control 997 late trains 16.5%
3. Police 848 late trains 14.0%
4. Revenue Vehicle 525 late trains 8.7%
5. Wayside Maintenance Work 344 late trains 5.7%
6. Operations 309 late trains 5.1%
7. Sick passenger 285 late trains 4.7%
8. Vandalism 262 late trains 4.3%
Wayside Train Control System

Includes False Occupancy & Routing, Delays Per 100 Train Runs

- 1.85, 1.00 goal not met
- Two major delays in January caused 36% of total quarterly late trains, otherwise improvement trend continues
- Major Delay Incidents:
  - January 5-6, 255 Trains Delayed: During repair of multiple damaged Mux cable connectors on M80 C Mux at M85, crew caused an arrestor to short on a “data down” line. Required extensive troubleshooting to locate—two seconds to correct.
  - January 19, 65 Trains Delayed: Intermittent False Occupancy (IFO) in M17 interlocking; multiple compounded delays prior to occurrence increased total trains delayed by IFO.
Computer Control System

Includes ICS computer & SORS, Delays per 100 train runs

✔ Goal not met due to an ICS State 3 on Feb. 8, during a routine daily backup procedure. Procedures for this activity were reexamined, and then reviewed with Maintenance personnel.
Service: How are we doing?

Traction Power

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

- Goal not met
- Major incidents:
  - Water intrusion in W Line tunnel caused 1kV cable failure
  - 34.5kV cable faulted on L Line
  - UPS failure near Pittsburg/Bay Point
  - 28 “Power Surge” incidents
Transportation

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

✓ 0.56; goal not met
✓ Major incidents:
  ▪ Switch correspondence issue in SFO Wye required manual routing by Train Controllers for much of January; resulted in a higher than normal amount of misroutes at the SFO Wye
  ▪ Train Operator manual run order violation leaving Daly City transfer tracks
Goal met

 Biggest event of the quarter resulted from early detection of developing rail defect via ultrasonic rail testing
Car Equipment - Reliability

Goal met – MTBF 4,760 hours
## Car Equipment - Availability @ 0400 hours

<table>
<thead>
<tr>
<th>Number of Cars</th>
<th>Results</th>
<th>Goal</th>
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<tbody>
<tr>
<td>400</td>
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</table>

- Goal Met – 584 Actual vs. 579 Required
- Miscellaneous propulsion failures:
  - February: West Oakland
  - March: North Concord – Pittsburg/Bay Point
Elevator Availability - Stations

Goal met
Elevator Availability - Garage

- 90.17% actual, 98% goal
- Controller drive failures at Millbrae
- Multiple, long term problems at Pleasant Hill – turned over to contractor; also CCCTA allocated $600K Measure J funds for modernization
Escalator Availability - Street

- Actual 84.7%, goal 95%
- Seven heavy repairs on street units during this quarter.
- Material obsolescence on Mission Street units resulted in extended outages
- Staffing levels continue below budget
- Recovery:
  - Resolved issue with SEIU that will improve staffing
  - Several new hires plus more in the pipeline
  - Received material for the two long term outages on Mission Street
  - Projecting improvement in fourth quarter
Escalator Availability - Platform

- 95.27%, goal just missed
- Improved over last quarter
- Six heavy repairs completed, one at Daly City in progress
AFC Gate Availability

✓ 99.43 % - goal exceeded
AFC Vendor Availability

✓ Ticket Vendor Availability - 95.67% - exceeded goal
✓ Add Fare Availability – 98.8%
✓ Add Fare Parking Availability – 98.8%
✓ Parking Validation Machines Availability – 99.5%
Environment - Outside Stations

Composite rating of:
- Walkways & Entry Plaza Cleanliness (50%)  2.65
- BART Parking Lot Cleanliness (25%) 2.98
- Appearance of BART Landscaping (25%) 2.72

✓ Goal not met but improved
✓ Landscaping sub-goal met
✓ Cleanliness ratings of either Excellent or Good:
  - Walkways/Entry Plazas: 61.5%  
  - Parking Lots: 76.9%
  - Landscaping Appearance: 64.7%
## Environment - Inside Stations

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Results</th>
<th>Goal</th>
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<tbody>
<tr>
<td>FY2015 Qtr 3</td>
<td>2.65</td>
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<tr>
<td>FY2015 Qtr 4</td>
<td>2.74</td>
<td>2.70</td>
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<tr>
<td>FY2016 Qtr 1</td>
<td>2.73</td>
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</tr>
<tr>
<td>FY2016 Qtr 2</td>
<td>2.73</td>
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<tr>
<td>FY2016 Qtr 3</td>
<td>2.70</td>
<td>2.70</td>
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</table>

### Cleanliness Ratings Summary

- **Station Platform (60%)**: 2.85
- **Other Station Areas (20%)**: 2.66
- **Restrooms (10%)**: 2.20
- **Elevator Cleanliness (10%)**: 2.42

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

- **Goal not met, all four sub-categories down slightly**
- **Cleanliness ratings of either Excellent or Good:**
  - **Station Platform**: 72.1%
  - **Other Station Areas**: 61.0%
  - **Restrooms**: 40.3%
  - **Elevators**: 49.4%
Station Vandalism

Goal not met

77.7% of those surveyed ranked this category as either Excellent or Good
Station Services

Composite rating of:
- Station Agent Availability (65%) 2.92
- Brochures Availability (35%) 3.02

- Goal not met
- Availability ratings of either Excellent or Good:
  - Station Agents: 74.9%
  - Brochures: 79.0%
Train P.A. Announcements

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

Goal not met but improved performance
Announcement ratings of either Excellent or Good:
Arrivals: 80.2%  Transfers: 79.0%
Destinations: 85.1%
Train Exterior Appearance

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

Goal not met
76.0% of those surveyed ranked this category as either Excellent or Good
Train Interior Cleanliness

Composite rating of:
- Train interior cleanliness (60%) 2.69
- Train interior kept free of graffiti (40%) 3.33

- Score down, below goal for first time in a year
- Train Interior ratings of either Excellent or Good:
  - Cleanliness: 63.5%
  - Graffiti-free: 90.7%
Train Temperature

Comfortable Temperature Onboard Train

✓ Goal met
✓ 85.7% of those surveyed ranked this category as either Excellent or Good
6.68, 5.07 goal not met

Total complaints received during this period increased 861 (65.4%) from last quarter, up 605 (38.5%) when compared with FY 15, third quarter.

Complaint totals recorded increase in all categories.

“Compliments” are up with 140 compared to 90 last quarter (one year ago these numbered 100).
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
BART Police Presence

Composite Rating of Adequate BART Police Presence in:
Stations (33%) 2.25
Parking Lots and Garages (33%) 2.41
Trains (33%) 2.21

Goal not met
Adequate Presence ratings of either Excellent or Good:
Stations: 42.7%    Parking Lots/Garages: 48.6%
Trains: 39.7%
Quality of Life incidents are down 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 are up from the last quarter, and up from the corresponding quarter of the prior fiscal year.
Auto Theft and Burglary

✓ Goal met
✓ The number of incidents per thousand parking spaces are down from last quarter, and up from the corresponding quarter from the prior fiscal year.
The Average Emergency Response Time goal was met for the quarter.
Bike Theft

Goal met

124 bike thefts for current quarter, down 77 from last quarter and down 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.