Maintaining the Railroad - Overview
Citizen Advisory Committee
January 19, 2022
Agenda Item 7
Maintaining the Railroad

- Track & Right of Way
- Mechanical
- Signal
- Communications
- Stations
- Operations
- Special Events
Continuous Maintenance of the Track

- We maintain the track to FRA Class 5 speeds of 90 Passenger / 80 Freight
- We operate at FRA Class 4 speeds of 79 Passenger / 60 Freight
- Surfacing of the track (typically over 1000 lineal feet per night)
- Tie replacements (8 -15) per night
- Rail replacement (typical stick of rail is 39’ to 80’ in length)
- Rail welding to support
- Switch component replacement (#20 Turnout has over 500 different parts)
- Switch grinding to extend useful life as necessary
- Rail grinding on the Continuous Welded Rail (CWR) to prolong the rail life
Track & Right of Way

- **Continuous Track Inspections**
  - HiRail Inspections of the track – every other day (over 100 miles of track)
  - Switch testing – every 30 days (over 250 main line switches)
  - Ensco Geometry Car – 2 times per year
  - Sperry Rail Testing – 2 times per year
  - Sperry Switch Testing – 1 per year
  - Holland Gage Restraint Measuring System (GRMS) – 1 per year
  - Federal Railroad Administration (FRA) Car – Continuous visits
  - California Public Utilities Commission (CPUC) side clearances / walkways
Track & Right of Way

• Right of Way Maintenance
  • 52 Miles in length X 100’ width = 274,560,000 square feet or 6,303 acres we are responsible for
  • Fencing
  • Tree & Vegetation Management
  • Homeless Encampments
  • Fires
  • Graffiti
  • Illegal dumping
  • Garbage
  • Customer Service complaints
Mechanical

• 118 positions (Labor and Management).
  • Maintain the Rail Passenger Fleet with focus on safety and reliability while meeting or exceeding FRA regulations for passenger fleets.
  • 24/7/365-day operation at CEMOF in SJ and SF.
  • Universal Technician, Electrician, Machinist, Mechanic-Sheet Metal, Carman, Laborer, Coach Cleaner.
  • 91 employees at CEMOF, 23 at SFO and 4 in Gilroy.
Responsibilities:

• Service & Inspection
  • Perform daily inspections on all locomotives and passenger cars.
  • Fuel, service toilets/restrooms, pick-up/empty trash, fog train.

• Perform PM services:
  • HEP, 30, 92 and 1104 day on locos.
  • 90, 360 and 1472 day on cab cars.
  • 180 day on all car consists.
  • COT&S 4-year air on all car fleet.
Mechanical-cont.

• COVID cleaning protocols:
  • Air system is equipped with MERV 13 filters.
  • Fog cars nightly, re-fog and disinfect high touch points in between service as schedule allows.

• SOGR-State of Good Repairs:
  • Stair nosing, battery replacement, locomotive seats, 480v cables, toilet overhauls, suspensions, controller.

• Unscheduled and accident repairs:
  • Unscheduled break-down of equipment.
  • Vehicle or trespasser strike repairs.
Signal Department Responsibility

- Maintain a safe crossing activation system
- Maintain a safe train detection signal system
- Support capital projects
Overview

- 38 positions (Labor & Management)
- 24 - 7
- Typical Weekly Activities
- 128 Total FRA Required Signal Tests
- 12 Signal Trouble Calls
Activities

- Peninsula Corridor Electrification Project
- Graffiti Abatement
- Upgrading Incandescent Signal Lighting to Light Emitting Diode (LED) Lighting
- Upgrading Stand-by Power - Batteries and Chargers
- Underground Signal Cables and Fiber Optic Cables Locator Mark-Out
Communications

• 17 positions (14 Labor & 3 Management)

Communications Department (FY22)
Communications

• Maintain and Operate
  • 24/7/365 Positive Train Control Help Desk
  • 2 Central Control Facilities (Dispatch Centers)
  • 8 Voice & Radio Base Stations
  • 70 Wayside Facilities
  • 70+ Locomotive Radios
  • 350+ Vehicle & Portable Radios
  • 31 Station Communication Systems
Communications

- Maintain, Repair & Restore
  - Approximately 60 Maintenance Tasks / month = Radio
  - Approximately Repairs 2 / day = TVM/Clipper CID/PA/VMS
  - Approximately 5 Repair Requests / day = PTC Logs
Stations

- 8 positions (6 Labor & 2 Management)
Stations

- Maintain, Operate, and Support
  - 31 Passenger Stations
    - Elevators, Electrical, Pumps, Painting etc.
  - 41 Vehicular Grade Crossings (Non Signal Components)
  - 11 Ped At Grade Crossings (Non Signal Components)
- Daily Notifications
  - Safety Systems, Public, Agency Inspections etc.
- Special Events
  - Stanford, Giants, 49ers, Press Events, Concerts etc.
Stations

• Maintain, Repair & Restore
  • Approximately 200 Scheduled Maintenance / month
  • Approximately 10 – 15 Notifications for Repairs / week
  • Approximately 4 Special Events / month
Operations

• Current Timetable:
  – 104 trains per day on weekdays
  – 32 trains per day on weekends

• Train service is covered by 46 assigned jobs
  • 3 Gilroy based
  • 16 San Francisco based
  • 23 San Jose based
  • 4 CEMOF yard
  • Remaining employees are assigned to an Extra Board
    • Extra Board employees cover vacancies, as well as operate Special Service trains
Operations

• Current roster:
  • 61 Engineers
  • 55 Conductors
  • 60 Assistant Conductors

• Assistant Conductor New Hires:
  • 8 new hires currently in training (Hire date: 12/13/2021)
  • 9 new hires scheduled to begin training on 02/14/2022

*** Takes approximately 8-10 weeks to complete new hire training before being allowed to work as an Assistant Conductor ***
Special Service

• What does Special Service entail?
  – Schedule coordination
  – Station clean up before and after the event
  – Equipment maintenance and movement
  – Signal and crossing
  – and more
Special Service

• August 30, 2021, Service Change
  • Weekday
    • 104 trains
    • 30 minutes evening off-peak thru 11 p.m. (SF)
  • Saturday and Sunday
    • Same service hours
    • Last train out of San Jose Diridon at 11:12 p.m.
Special Service

• FY 2019
  – Monitor and planned additional service (> 160)
  – More than 300 additional trains

• Post-pandemic
  – In-person attendance resumed Spring 2021
  – More than 55 additional trains (July thru Dec. 2021)
Fare Enforcement

• Proof-of-Payment System
• Conductor training – key aspects
  – Fare inspection techniques and procedures
  – Safety and security awareness
  – Issuing Notice of Violation
Fare Enforcement

• Enforcement Tools
  – Visual (paper and mobile)
  – Handheld Clipper card reader
  – Go Pass digital conductor guide
  – Notice of violation handheld

• Additional coordination for a successful program
  – Equipment maintenance and improvements
  – Communication with the customer
  – And more
Fare Enforcement

Unruly Passengers Incidents - July thru December 2021

- July
- August
- September
- October
- November
- December

Total
Questions?