



***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

Track & Right of Way (42 positions Labor/Manage)

- **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.

Mechanical-cont.

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

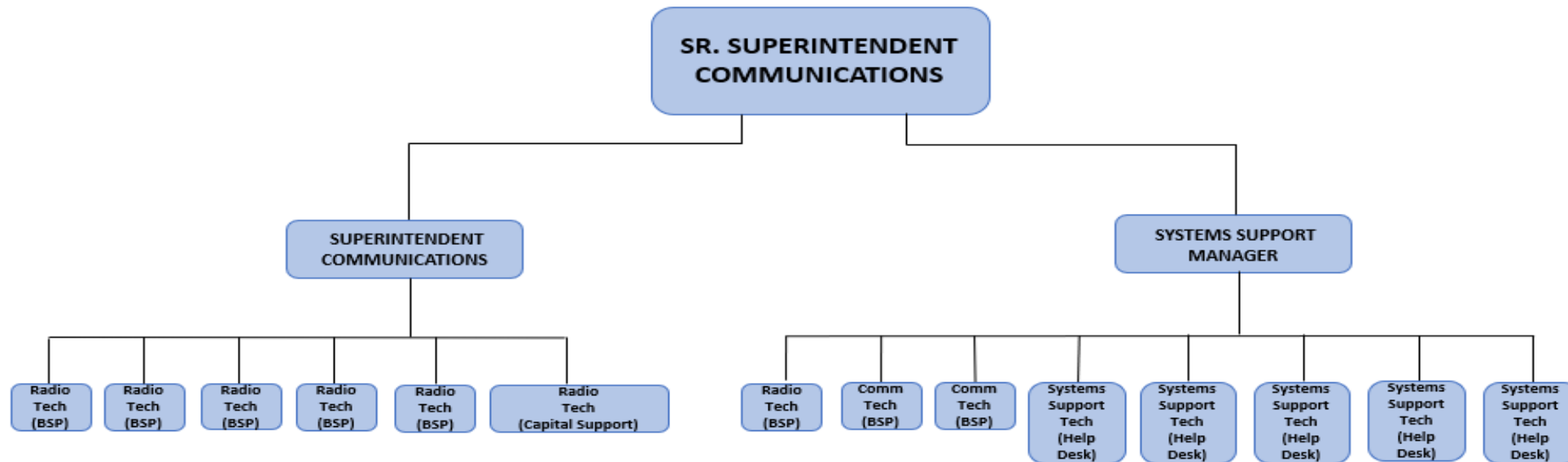
Activities

- 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

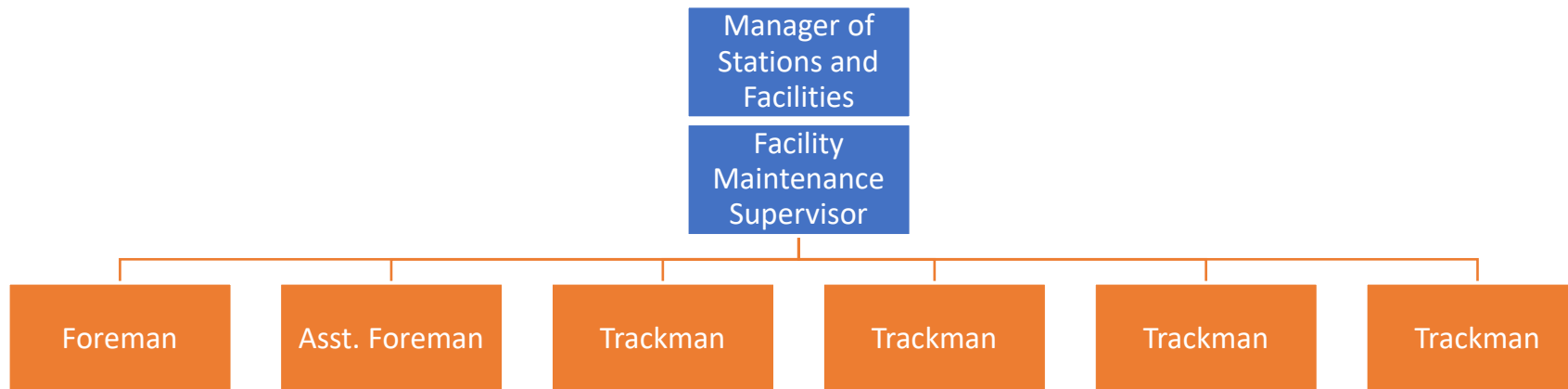
Communications

- 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 Organizational Chart



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

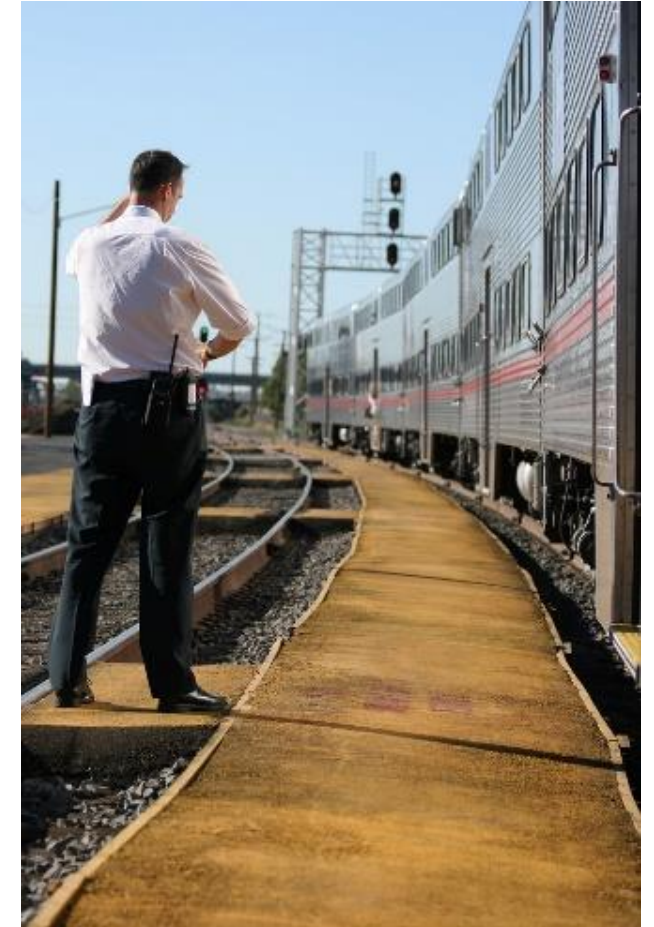
- Current Timetable:
 - 104 trains per day on weekdays
 - 32 trains per day on weekends
- Train service is covered by 46 assigned jobs
 - 3 Gilroy based
 - 16 San Francisco based
 - 23 San Jose based
 - 4 CEMOF yard
 - Remaining employees are assigned to an Extra Board
 - Extra Board employees cover 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

Holiday Train
MLK Celebration Train
SF Giants 4th of July
Concerts Turkey Trot
Stanford SF 49ers
Bay to Breakers SJ Sharks
New Year's Fireworks

- What does Special Service entails?
 - 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

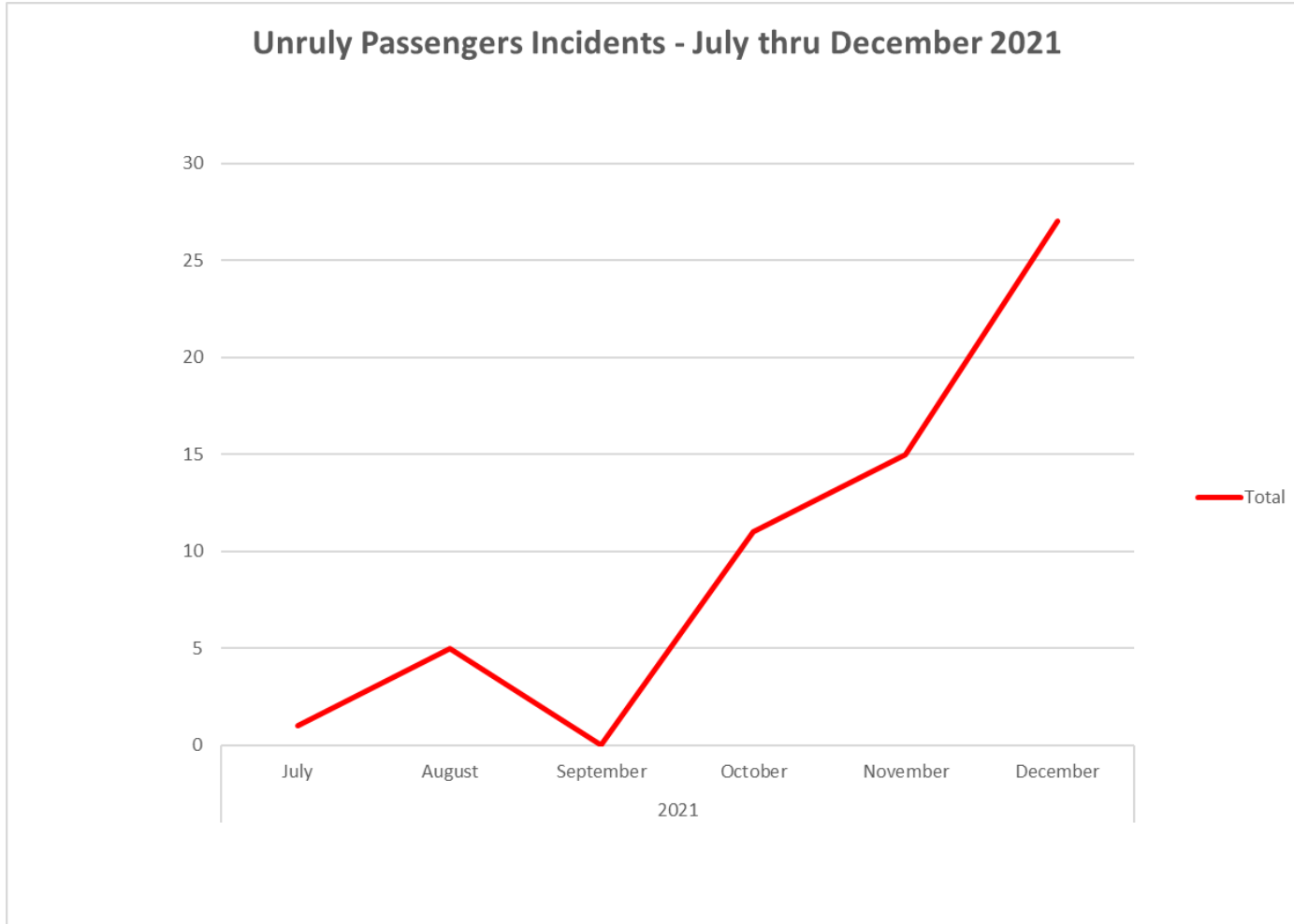
- Proof-of-Payment System
- Conductor training – key aspects
 - Fare inspection techniques and procedures
 - Safety and security awareness
 - Issuing Notice of Violation



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



Questions?

