



SFMTA
Municipal
Transportation
Agency

Update & Action Plan Elevators/Escalators

May 19, 2015

Transit Operations

Annual Ridership: More Than 25M Customer's Use Metro Stations!



Who is Responsible For These Escalators?



SFMTA Elevators & Escalators

Station	Elevator	Escalator
Embarcadero	0	4
Montgomery	0	2
Powell/Hallidie Plaza	0	6
Civic Center	0	2
Van Ness	2	4
Church	3	4
Castro	3	4
Forest Hill	4	0
West Portal	0	2
Operations/Maintenance Facilities	18	0

- Bolded stations are joint-use between SFMTA & Bart
- At joint stations, Muni is responsible for elevators and escalators that serve Muni platforms only with the addition of Hallidie Plaza

New SFMTA Hallidie Plaza Escalators



Elevator/Escalator Maintenance

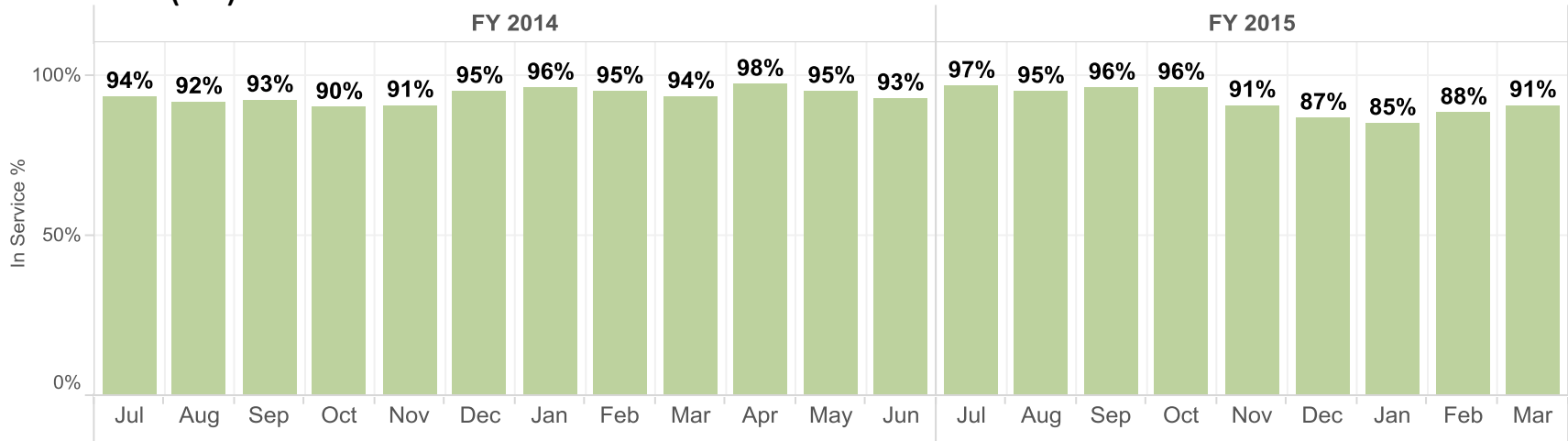
- SFMTA staff monitors elevator and escalator status 24/7 and responds to all issues
- Staff manages contracts with five Original Equipment Manufacturer elevator and escalator contractors for all maintenance and repairs including:
 - Scheduled preventative maintenance
 - 24/7 response to all call backs
 - All minor and major repairs
- Current maintenance practices have sustained reliability in the past but immediate midlife overhaul is required to sustain equipment performance

Performance & Reliability Data

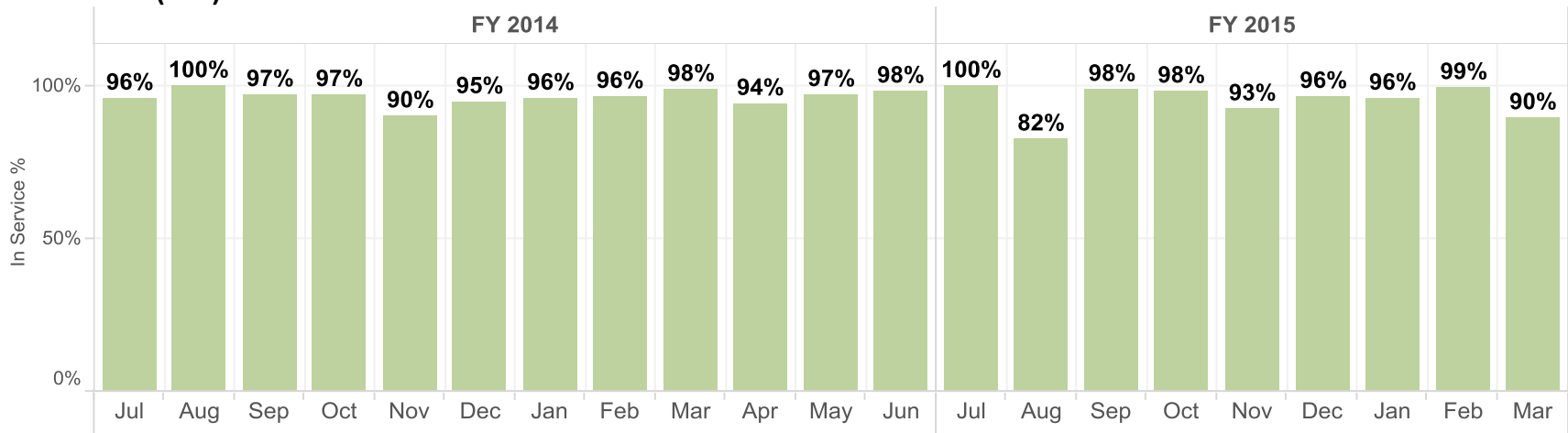
Percentage of Time that Elevators and Escalators are Available – **All Stations**

Goal is 98%

Escalators :(28)



Elevators :(12)



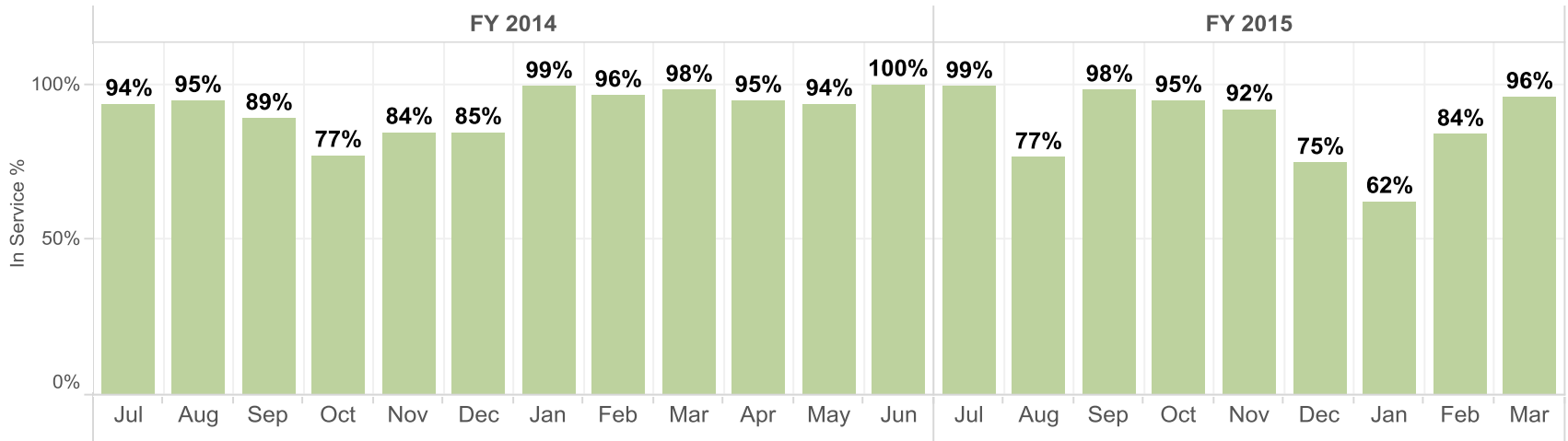
Factors Driving Decline in Elevator/Escalator Performance

- 23 Muni escalators have traveled **442,000** miles
- Age of equipment approximately 37 years
- Experiencing new major system failures
- Many out of production for several years and many parts are obsolete
- Operated in a 20 hours a day, 7 days a week transit environment
- Corrosion due to exposure to weather and other liquids
- Subject to abuse and vandalism

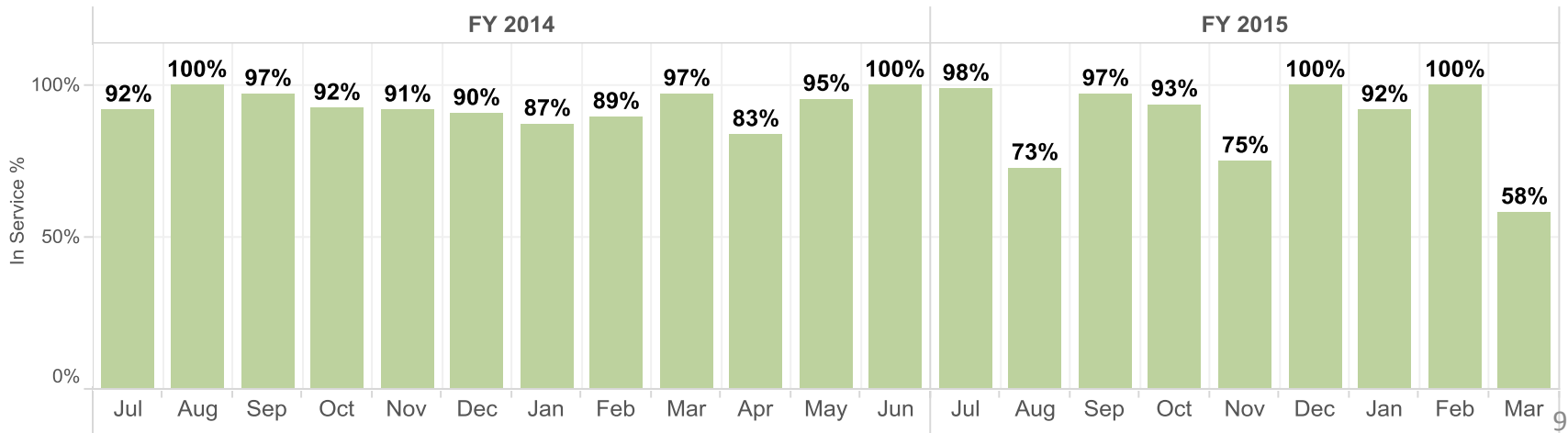
Performance & Reliability Data

Percentage of Time that Elevators and Escalators are Available – **Van Ness Station**

Escalators: (4)



Elevators: (2)



Van Ness Station Overview

- Flooding at Van Ness Station affected performance of elevators/escalators by causing major electrical damage (Dec. 2014)
- New escalators at Van Ness have all code required safety devices which make them more vulnerable to shutdowns due to abuse and vandalism
- Equipment has experienced higher usage and an increased amount of abuse and vandalism due to the environment and conditions

Why now?

- Declining Reliability
- Units are over 15 years passed their useful lifecycle and need replacement now
- Need to upgrade to current safety codes and technology
- Original units have been out of production for years and many parts are obsolete
- They have become extremely labor intensive to maintain
- Equipment is constantly subject to abuse and vandalism



Capital Projects: Modernization & Replacement Projects

Escalator Modernization Project Phase 1:

Replacement of 5 escalators – Complete

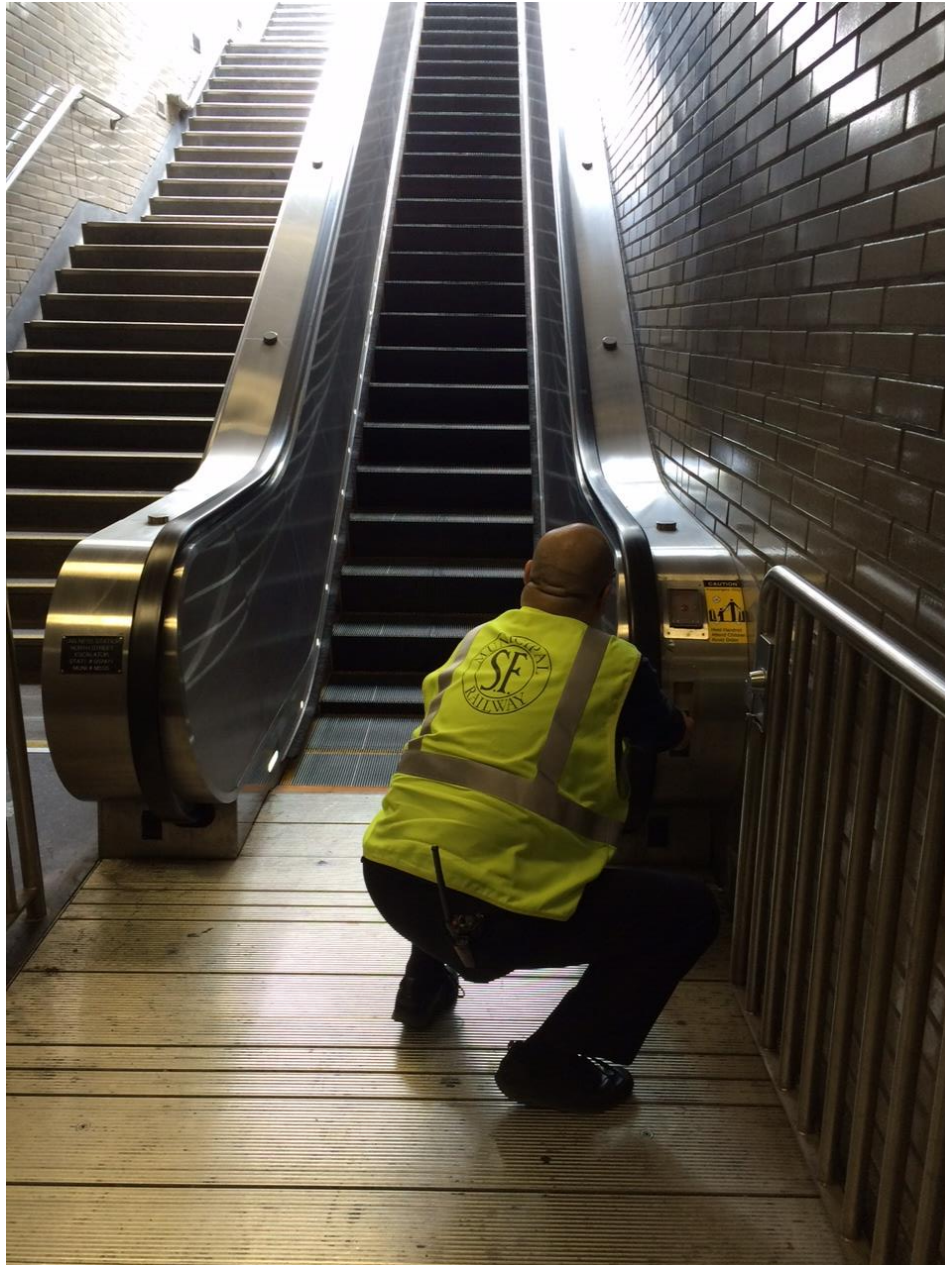
Escalator Modernization Project Phase 2:

Replacement of 17 escalators – Construction begins Fall 2015. Estimated completion 2018.

Van Ness Station Elevator Modernization

Currently out to bid for the 3rd time.

Station Agent Checking Escalator



Actions to Improve Performance

- **Upgrading contract maintenance**
- **Van Ness Elevators**
 - Van Ness Station Elevator Modernization Project is currently out to bid.
- **Church, Castro and Forest Hill Elevators**
 - All need door replacements
 - Several components need replacing as they have a high failure rate
 - **\$2.2M** modernization needed to improve performance and reliability until equipment is replaced. Work will be **fast tracked** through existing maintenance contracts

Elevator Status **Communication** Responsibilities

Station Agent

- Identifies issue and communicates to SFTMA Program Manager, Stationary Engineer and 3-1-1. (If equipment is out-of-service or returned to service)
- Updates subway elevator status signage of all stations (including Bart elevators in joint use stations)

3-1-1

- Updates Elevator Status on NextMuni & GovDelivery

LiftNet

A new elevator/escalator management system (LiftNet) has been designed and will be implemented with all new installations. The system will electronically monitor equipment and give immediate status reports electronically while providing specific troubleshooting information. New status communication procedures will also be implemented.