

Los Angeles County
Metropolitan Transportation Authority

Bus Mid Life Program Central Maintenance Shops

Gateway Cities Service Sector

John Roberts

Deputy Executive Officer, Operations

April 9, 2009



Metro

INTRODUCTION

The Central Maintenance Shops (CMS) is the largest department at the Metro Support Services Department (MSSC). 237 CMS employees work to provide heavy bus maintenance repairs and refurbishments to Metro's bus divisions as well as component rebuild/fabrication services to the bus divisions and other departments including Rail, Facilities, ITS, etc.

CMS has the facility, equipment and expertise not available at other Metro locations to perform heavy bus repairs such as engine package replacements and major bus refurbishment including major accident repair and complete paint jobs.

The skills of our maintenance technicians along with our ability to schedule maintenance on a bus through a pre-selected process and then provide the division with a backfill bus, enables CMS to perform the work more efficiently and effectively with less impact on bus service.



Metro

Capital Projects

- **CP# 203017 \$12,854,120**
FY10 CMS Engine Replacement
 - Engine only.
 - No transmission, no paint, other mid-life work performed

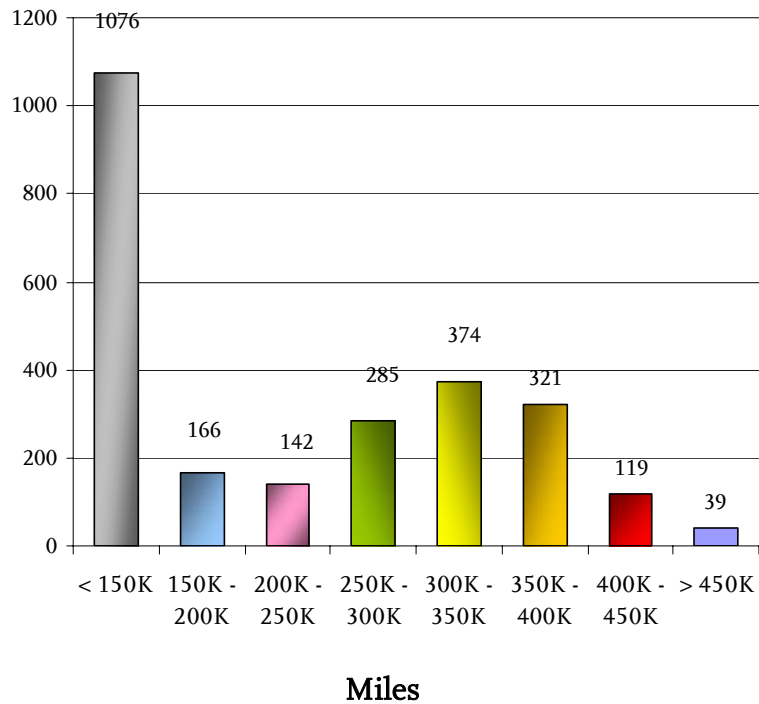
- **CP# 203007 \$27,000,000**
FY10 Bus Midlife Program
 - Power package assembly, exterior body repair and paint, wheel chair system, fuel cylinders, undercarriage, interior seats, windows, panel repairs and driver's area refurbishment

FTA Policy of Bus Replacement

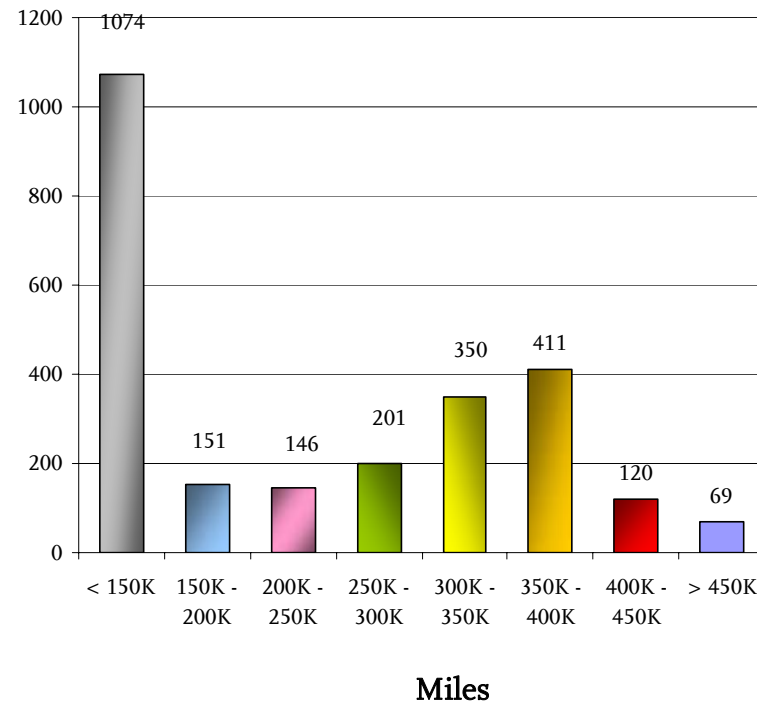
- **FTA Guidelines for bus replacement is 12 years or 500,000 miles**
- **MTA has typically kept buses for 13 years to 18 years and 500,000 miles to 650,000+ miles**

Engine Replacement Program

Bus Engines FY09 (Current)

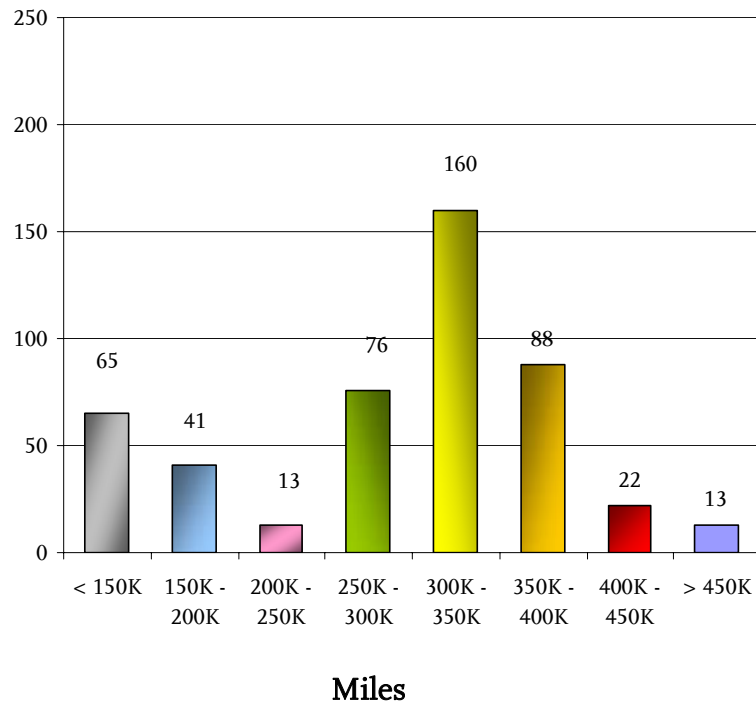


Bus Engines FY10 (Projected)

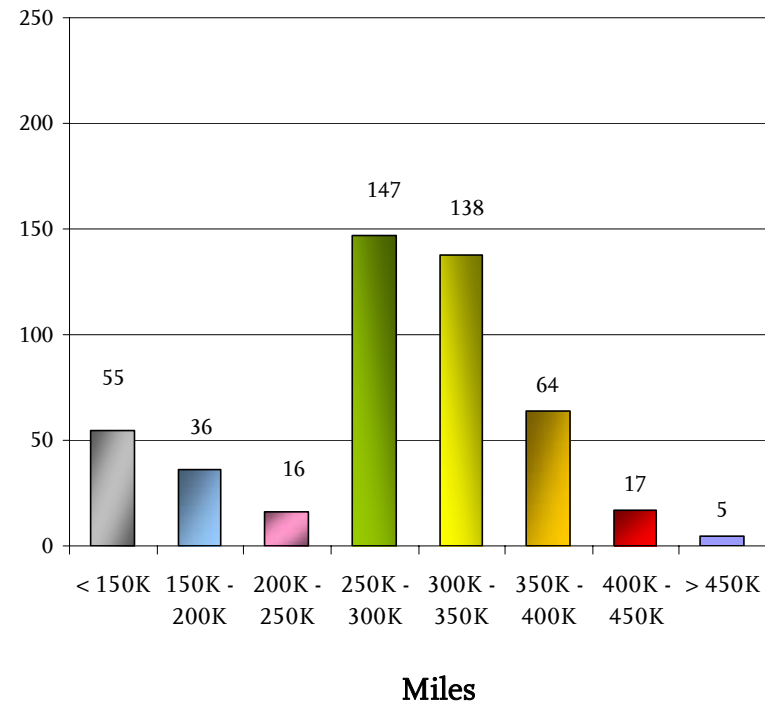


Div. 1 and Div. 2 Engine Replacement

Bus Engines FY09



Bus Engines FY10



Engine Replacement

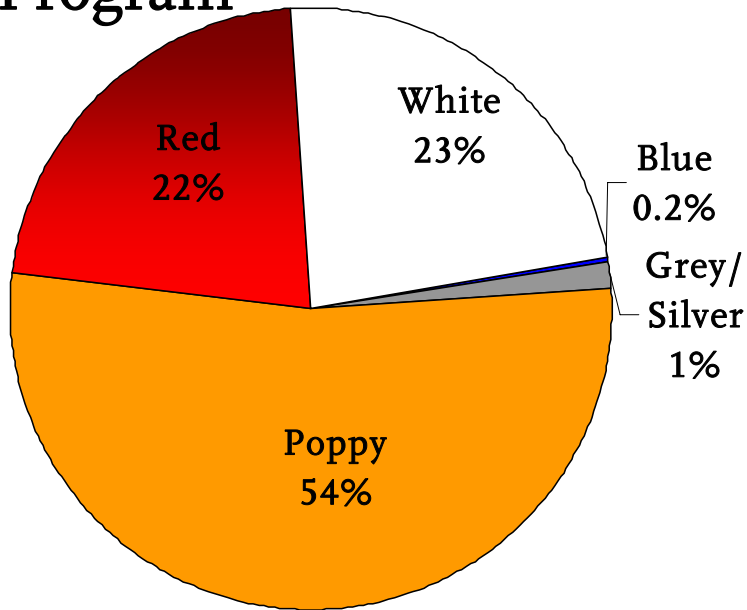
Re-acting to engine failures will increase costs to divisions and cause:

- **Buses out of service waiting for new engines**
- **Reliability and performance problems at and prior to full failure**
- **More labor resources needed at the divisions to address engine related problems**
- **Increased road calls, towing, service interruptions, etc.**
- **Costly demand for parts and labor**

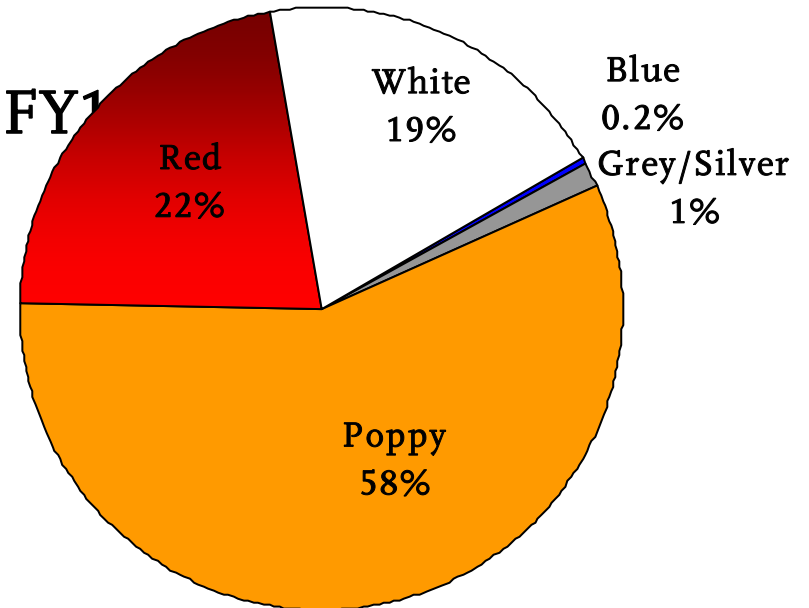
Bus Midlife Program

Paint Program

FY09



FY10



Bus Midlife Program

Rear axle mounting

The rear axle mountings in the 7000-7214 bus series have been cracking. Buses with cracked frames must be removed from service according to CHP guidelines.



Wheel Chair Ramps

Wheel chair ramps are worn and damaged.



Side View



Bus Midlife Program

Interior/Exterior Refurbishment

Exterior damage from minor accidents. Refurbishment of Driver's area.
Graffiti damage to seat backs, seat cushions and interior panels.

Upper Corner



Roof- Top Panel Joint Corrosion



Wheel Well



Driver's Area



Rear Corner



Graffiti



FY10 Bus Midlife Program

Due to the number of buses at or over 6 years old, CMS can not perform a Midlife Overhaul to every qualified bus without increasing resources.

