



**Massachusetts Bay
Transportation Authority**

**Update: Locomotive Investment Strategy
Short and Mid-Term Options**

June 5, 2017



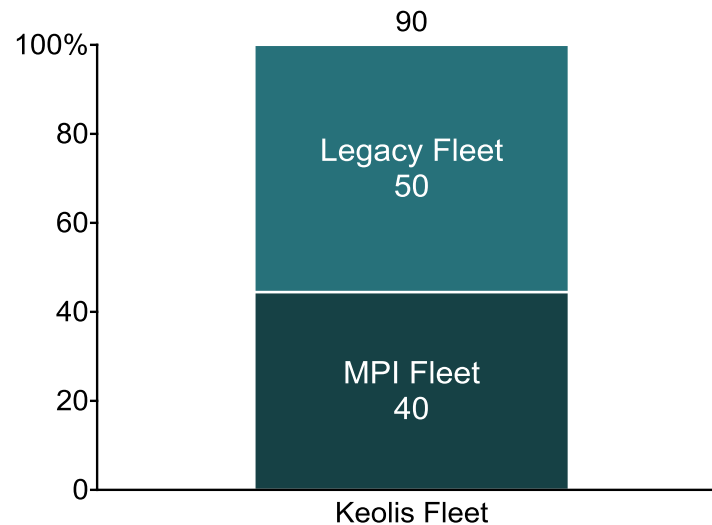
Overview

1. Current Locomotive Fleet
2. Mid-term Fleet Plan
3. Estimated Budget



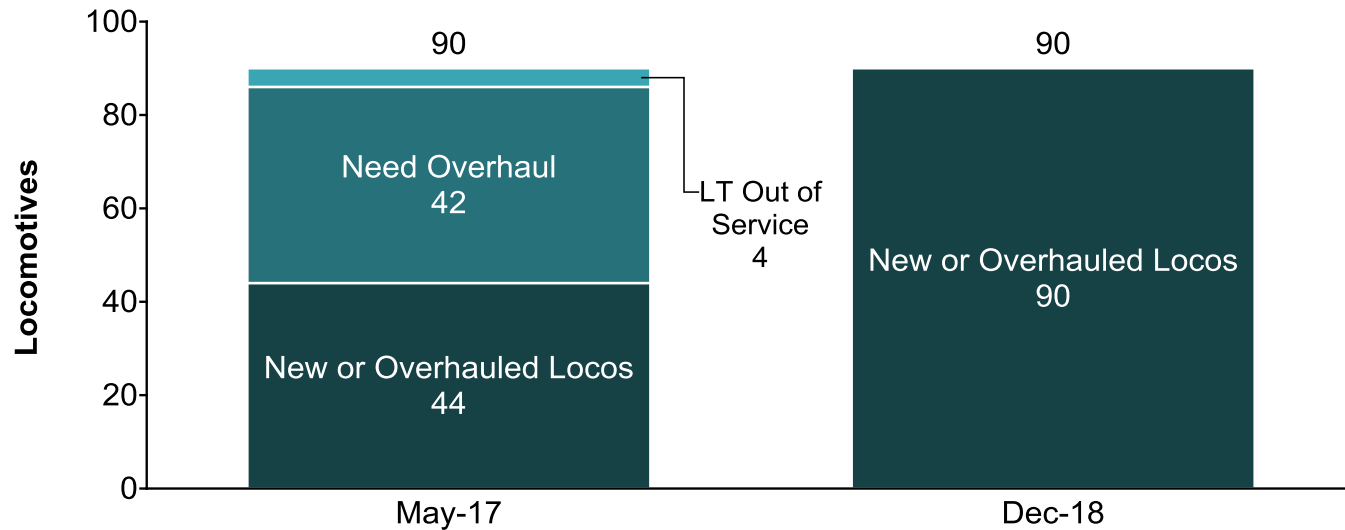
Current Locomotive Fleet

- Keolis is responsible for maintaining/operating 90 locomotives
- Fleet breakdown:
 - 50 = Legacy fleet;
 - 40 = MPI fleet





Mid-Term Fleet Evolution



- As of now, over half the locomotive fleet is in need of repairs or overhaul.
- The mid-term fleet strategy should get us to 90 new or overhauled locomotives by December 2018.



Mid-Term Fleet Plan

The plan consists of locomotive repair and overhaul programs designed to keep the legacy fleet operating reliably for approximately six more years.

Programs Underway:

- Short-term recovery program
- UTEX Phase I
- UTEX Phase II
- F-40 Overhaul
- GP-40 Overhaul
- MP-36 Top Deck Overhaul

Potential Additional Initiatives:

- UTEX Phase III



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Short-Term Locomotive Recovery Program

- 5 legacy locomotives
- 3 have returned to service
- 4th expected back mid-June;
5th TBD
- Estimated Cost: \$500k for all repairs
- Goal is return to service; these repairs do not extend useful life





UTEX Program

Phase I:

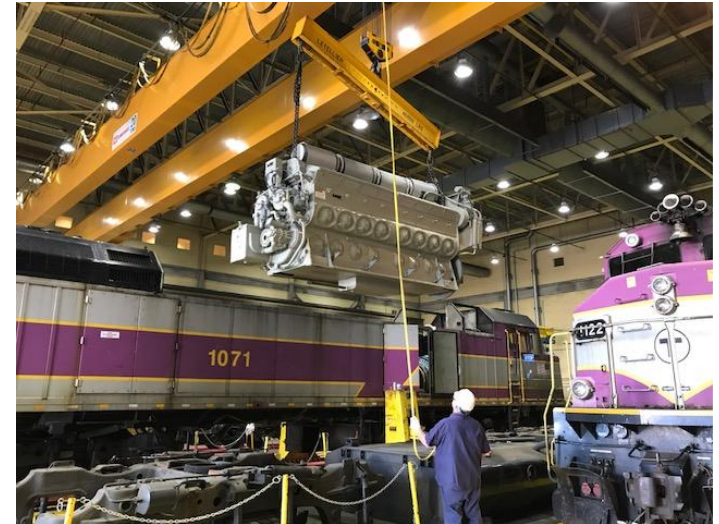
- 5 locomotives
- One loco per month starting Apr. 2017 (2 completed and back in service)
- Cost: \$6 million (\$1.2 million per loco)
- Extends service life 6 years

Phase II:

- Another 5 locomotives
- One loco per month starting Sept. 2017

Phase III:

- Under consideration
- Up to 8 more locos starting Feb. 2018





MBTA Overhaul of 10 F-40 Locomotives

- Procurement to overhaul 10 F-40 locomotives; proposals were due 5/12/17
- 5 from the operating fleet; 5 inactive
- First loco expected back Mar. 2018, then one per month through Dec. 2018
- Estimated cost: \$30 million for 10
- Extends service life by 20 years





MBTA GP-40 and MP-36 Overhauls

GP-40 Overhaul

- 4 locomotives will be advertised and sent off property for overhaul.
- One from the active operating fleet; 3 are inactive
- First loco expected back Jun. 2018; program complete by Dec. 2018
- Estimated cost: \$6 million for 4
- Extends service life by 20 years

MP-36 Top Deck Overhaul

- 2 locomotives will be advertised and sent off property for overhaul.
- Both from the active operating fleet
- Expected back in service Mar. 2018
- Estimated Cost: \$1 million for 2
- Extends service life by 10 years



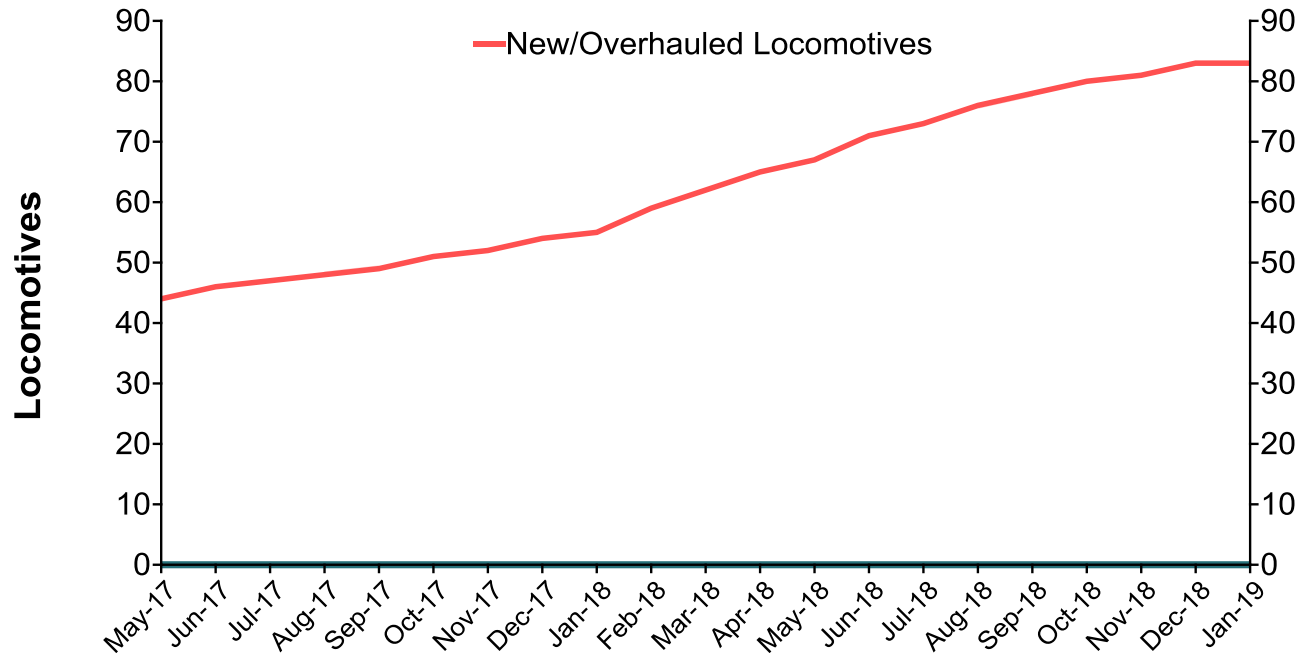
Engine Procurement

- 15 engines with options for 10; will be advertised mid-June 2017
- Will supply engines for UTEX and overhaul programs and make spares available
- Estimated cost: \$4.5 million for 15 (\$300k per engine)
- Expected useful life of 20 years (including scheduled overhauls)





New/Overhauled Locomotive Availability



- As of today, we have 44 new or overhauled locomotives in the fleet.
- With the planned locomotive repair and overhaul programs, we will be at 83 by December 2018.



Estimated Budget for Mid-Term Programs

- UTEX Phase II: \$6M
- F40 Overhaul: \$30M
- GP40 Overhaul: \$6M
- MP-36 Top-Deck: \$1M
- UTEX Phase III: \$9.6M
- Engine Procurement: \$4.5M*

**Engines will be used to support programs above.*

