Using Performance Targets to Drive a Transit Asset Management Program

Abstract: This white paper describes a strategy for setting short-, mid- and long-term targets for measures of the condition of transit assets and how to use performance targets to drive an agency's transit asset management (TAM) program.

Keywords: asset condition, capital programs, performance, targets, transit asset management

Summary: This document describes a strategy for setting and reporting short-, mid- and long-term targets for state of good repair performance measures for key assets, as required by federal regulations, and the associated benefits for transit agency capital programs.

Scope and purpose: This document explains the benefits of setting and reporting short-, mid- and long-term performance targets for TAM programs beyond the federal required annual targets.

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Introduction

This introduction is not part of APTA SUDS-TAM-WP-008-20, "Using Performance Targets to Drive a Transit Asset Management Program."

APTA recommends the use of this document by:

- individuals or organizations that operate transit systems;
- individuals or organizations that contract with others for the operation of transit systems; and
- individuals or organizations that influence how transit systems are operated (including but not limited to consultants, designers and contractors).

Using Performance Targets to Drive a Transit Asset Management Program

1. Background

Federal regulations initiated by the legislation Moving Ahead for Progress in the 21st Century (MAP-21) and the Fixing America's Surface Transportation (FAST) Act require transit agencies to set annual performance targets for assets for which they have capital replacement responsibility, report these targets to the Federal Transit Administration (FTA) and their metropolitan planning organizations (MPOs), and submit a narrative report each year to the National Transit Database (NTD) describing progress toward meeting targets. Required targets include the percentage of revenue vehicles beyond their useful life, the percentage of equipment beyond its useful life, the percentage of facilities in poor condition, and the percentage of track miles under performance restriction (see below for an example target calculation for rolling stock). In the context of the regulations, a target is a specific value for a performance measure that an agency expects to achieve given its current asset condition and expected funding.

Table 1 shows how current performance and annual targets can be reported for revenue vehicles.

TABLE 1
Transit Asset Reporting Example

Asset Category	Vehicle Class/ Type	Fleet Size	Vehicle Age (Years)	Default ULB	FY19 Performance Metric (% Exceeding ULB)	FY20 Target
Rolling stock	Over the road bus (BU)	10	5	14 years	0%	60%
		15	13	14 years		
	Cutaway bus	19	8	10 years	21%	21%
		5	12	10 years		
	Mini Van (MV)	5	5	8 years	0%	0%
	Van (VN)	1	10	8 years	67%	67%
		2	5	8 years		
Equipment	Auto (AO)	5	4	8 years	0%	0%

2. Recommended practice

While federal regulations require annual target-setting and reporting to FTA, an agency can and should set targets for transit performance measures over a longer period of time, such as midterm targets (e.g., four to six years) to align with a current capital program, and long-term targets (e.g., 10 years or more years) to align with the Transit Asset Management Plan or Transportation Improvement Program (TIP) investment horizon. These targets are agency-specific and can help to shape strategy and messaging about the capital program.

Short-term, annual targets are used to measure success of the delivery of the capital program planned for the given year. Setting mid- and long-range targets can serve as a communications tool to define state of good repair goals for an agency, given existing revenues, expenses and prioritization practices. These are goals for the level of performance the agency desires to achieve in the future, considering competing objectives. They can also be used to identify funding shortfalls and to communicate backlog. Ideally mid- and long-term targets should be set for revenue vehicles, facilities and other assets critical to the agency's mission.

Midterm targets can project the level of state of good repair given an agency's current capital funding plans and serve as a check that the current investment portfolio is moving the agency toward achieving its longer-term targets. Such targets can point to opportunities to accelerate procurement or construction activities—or gaps in current plans. These targets can help communicate how revenues, prioritization and capital packages will (or will not) bring the agency closer to long-term state of good repair targets.

Long-term targets have two potential uses:

1. Communicating the impact on asset condition of the prioritized investments in the TAM plan. This assumes the prioritization process is complete with a set level of available resources.
2. Setting realistic goals for asset state of good repair to drive the capital planning process, including prioritization of projects. For example, if an agency sets a target of 30 percent of fleet beyond its useful life in 10 years, then that implies a certain investment profile/portfolio. Agencies can use a scenario tool to see how prioritizing different program/project packages can get them closer to their state of good repair targets, using the target to drive the process of packaging needs into projects. These targets also help agencies define what state of good repair realistically means for them (e.g., that 100 percent state of good repair is unattainable given resource constraints). Furthermore, if current resources are insufficient to meet the long-range targets, agency leadership can use this information to communicate additional funding needs—e.g. "an additional $X million will buy us this level of improvement in state of good repair."

Midterm targets can be updated on a rolling basis whenever the capital program is adjusted. For some agencies this may be annually, while for others it may be less frequent. Long-term targets are generally updated less frequently. Some agencies may choose to update them every four years when the TAM plan is refreshed. These targets are more strategic in nature, using executive input bounded by likely revenue and expenses to set levels of state of good repair that will then drive the capital program.

Table 2 summarizes recommended practices for setting short-, mid- and long-range asset condition targets.

TABLE 2
Setting Asset Condition Targets

Target	Inputs	What do the targets tell us?	Who is the audience?	How are targets used?	Risks to setting or achieving targets
Short	• Age/condition of existing assets • Capital plan for next year	What impact will this year's capital program have on asset condition?	• FTA • MPO • Executives • Public	Communicate intended impact of current-year capital program, evaluate how well an agency executed the current program	Failure to achieve targets can be due to delayed procurement, construction delays, late delivery, failure to receive grant money or revenue shortfalls
Mid	• Age/condition of existing assets • Capital plan for next four to six years	How will planned revenues, prioritization and capital packages impact asset condition?	• MPO • Executives • Board	Communicate intended impact of planned capital program	Emergencies or other decisions that result in reprogramming of funds can result in changes to the targets
Long	• Age/condition of existing assets • Planned investments in the TAM plan, TIP • Revenue and expense projections • Executive input	What will the condition be if we execute projects included in the TAM plan or TIP? What do we *want* the condition of our assets to be given current conditions and expected funding?	• MPO • Executives • Board	• Define state of good repair • Communicate projected impact of TAM plan • Drive project prioritization • Communicate additional funding needed to meet targets	Changes in revenues, expenses can result in fewer resources available and inability to execute all prioritized projects

Related APTA standards

APTA SUDS-TAM-RP-004-19, "Communicating Your Transit Asset Management Plan"
APTA SUDS-TAM-RP-005-19, "Improving Asset Management Through Better Asset Information"
APTA SUDS-TAM-RP-006-19, "Communication and Coordination with External Stakeholders for Transit Asset Management"
APTA SUDS-TAM-RP-007-19, "Building Internal Stakeholder Support for an Asset Management Program"

References

49 CFR § 625.45

Definitions

target: A specific value for a performance measure that an agency expects to achieve given its current asset condition and expected funding.

Abbreviations and acronyms

FTA	Federal Transit Administration
FAST	Fixing America's Surface Transportation
MAP-21	Moving Ahead for Progress in the 21st Century
NTD	National Transit Database
MPO	metropolitan planning organization
TAM	transit asset management
TIP	Transportation Improvement Program
ULB	Useful Life Benchmark

Document history

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